Rejection sensitivity and male violence in romantic relationships

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Abstract

Rejection sensitivity is the disposition to anxiously expect, readily perceive, and intensely react to rejection by significant others. A model of the role of this disposition in male violence toward romantic partners is proposed. Specifically, it is proposed that rejection sensitivity is a vulnerability factor for two distinct maladaptive styles of coping with intimate relationships. Rejection-sensitive men may attempt to prevent anticipated rejection by reducing their investment in intimate relationships. Alternatively, they may become highly invested in intimate relationships in search of an unconditionally supportive partner. Their low threshold for perceiving and overreacting to rejection, however, heightens their risk of responding aggressively to their partners' negative or ambiguous behavior. Cross-sectional data from 217 male college students supported predictions derived from the model. Among college men who reported relatively high investment in romantic relationships, anxious expectations of rejection predicted dating violence. Among men who reported relatively low investment in romantic relationships, anxious expectations of rejection predicted reduced involvement in discretionary close relationships with friends and romantic partners and, more generally, increased distress in and avoidance of social situations.

Converging evidence implicates rejection as a trigger of male violence toward romantic partners. According to clinical reports, violent husbands are particularly threatened by the possibility that their wife will leave them and their wives' attempts to establish independence can trigger serious violence (Browne, 1988; Walker, 1979). Consistent with this observation, a study of husbands who killed their wives found that a husband's rejection by his wife was the

most common precipitant of the fatal incident (Barnard, Vera, Vera, & Newman, 1982).

Violent men are not unique in experiencing rejection, however. It happens to almost all individuals at some point in their intimate relationships, but whereas most men do not respond to it with violence, slight or even imagined rebuffs can trigger a violent response by an abusive partner (Walker, 1979). It is necessary, therefore, to account for why some men respond violently to even mundane rejection whereas others do not. We have drawn selectively on the attributional and attachment perspectives in proposing a cognitive-affective processing disposition, namely rejection sensitivity, that we believe will help explain why individuals differ in the hostility of their response to perceived rejection (Downey & Feldman, 1996; Feldman & Downey, 1994).

An attributional analysis would view the violent behavior as resulting from perceiv-

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This research was supported by grants to Geraldine Downey from the Harry Frank Guggenheim Foundation, the National Institute of Mental Health (MH51113), and a W.T. Grant Foundation Faculty Scholar Award. We thank Niall Bolger, Keith Davis, Ken Dodge, Carol Dweck, Antonio Freitas, Walter Mischel, and Yuichi Shoda for helpful comments on earlier drafts of this article. ing the rejection as motivated by negative or hostile intent (e.g., Dodge, 1980; Heider, 1958; Kelley, 1979; Dutton & Browning, 1988; Holtzworth-Munroe & Anglin, 1991; Holtzworth-Munroe & Hutchinson, 1993). The attribution of hostile, rather than benign, intent to the rejection would justify an aggressive response. An attachment perspective would infer that a violent response to a perceived rejection would reflect an insecure working model of relationships. The expectations of rejection from significant others incorporated in such a model would promote a readiness to perceive and overreact to rejection (e.g., Bowlby, 1969, 1973, 1980; Sroufe, 1990). Accordingly, violent men have been shown to fear abandonment and to disproportionately hold insecure working models of relationships (e.g., Dutton, Saunders, Staromski, & Bartholomew, 1994; Holtzworth-Munroe, Stuart, & Hutchinson, 1996).

Drawing on an attachment perspective, our account of individual differences in violent responses to rejection posits that people's internal working models of relationships can guide them to anxiously expect rejection in social situations. Anxious expectations of rejection can, in turn, lead people to readily perceive rejection by fostering the type of perceptual biases that attributional analyses view as triggering aggressive behavior (e.g., Dodge, 1980). We have previously described individuals who anxiously expect, readily perceive, and intensely react to rejection as being high in rejection sensitivity (RS) (Downey & Feldman, 1996; Downey, Khouri, & Feldman, 1997; Feldman & Downey, 1994). In this article, we outline why RS may help account for male violence toward romantic partners, and we report the results of a study that tests this hypothesis.

Conceptualizing Rejection Sensitivity

As we have conceptualized it, RS is a cognitive-affective processing disposition (see Mischel & Shoda, 1995) that encompasses and provides an account of the relations among the three rejection-relevant charac-

teristics of men who enact intimate violence: anxious expectations of rejection, a bias toward perceiving rejection, and a heightened reactivity to perceived rejection (e.g., Downey & Feldman, 1996). Our assumption that rejection expectancies are at the core of RS is reflected in our operationalization of RS as the extent to which someone anxiously expects rejection from significant others. Our prior research suggests that rejection expectancies are formed as a result of repeated rejections from significant others (Bonica & Downey, 1999; Downey et al., 1997; Feldman & Downey, 1994). According to our framework, once rejection expectancies are formed, they get activated in situations where rejection by significant others is possible, prompting a hyper-vigilance for rejection cues, which makes it more likely that the person will readily perceive intentional rejection in the ambiguous behavior of a significant other. Consistent with these predictions, in both experimental and field studies, people who anxiously expected rejection perceived intentional rejection in the ambiguous behavior of others more readily than did those who more calmly expected acceptance (Downey & Feldman, 1996, Studies 2 and 3; Downey, Lebolt, Rincon, & Freitas, 1998).

According to our model, perceptions of rejection elicit cognitive-affective overreactions including hurt and anger. Such feelings and thoughts, in turn, make the enactment of behavioral overreactions, such as violence, more likely. Thus, our model posits a process linking anxious expectations of rejection with an increased propensity to behave aggressively toward significant others. Consistent with this conceptualization, we have previously shown that college men anxiously expect rejection show heightened feelings of anger, hurt, and jealousy in response to hypothetical scenarios of partner rejection (Ayduk & Downey, 1999) and are described as jealous and controlling by their partners (Downey & Feldman, 1996, Study 4). These findings support the hypothesized link between anxious rejection expectations and cognitive-affective

and behavioral overreactions to rejection for men. The study reported in this article tested the hypothesized link between anxious expectations of rejection and violent behavior toward romantic partners in male college students.

Rejection Sensitivity and Male Violence toward Romantic Partners

Evidence from several sources provides indirect support for the hypothesized links among the three interrelated components of RS and intimate violence. In clinical descriptions, men who abuse their partners are characterized as insecure and fearful of abandonment (e.g., Straus, Gelles, & Steinmetz, 1980; Walker, 1984). Researchers are beginning to provide evidence of a link between male violence and insecure attachment styles, which are characterized by expectations of rejection by significant others. In research using Bartholomew and Horowitz's (1991) framework for characterizing attachment security, Dutton et al. (1994) found higher rates of anxious attachment (both fearful and preoccupied) in men in treatment for wife assault than in matched controls. Similarly, Holtzworth-Munroe et al. (1996) found that, relative to nonviolent husbands, violent husbands were more anxious about abandonment, more jealous, and more anxiously attached to their wives. Moreover, violent men in distressed marriages showed higher rates of preoccupied attachment than did nonviolent maritally distressed controls and higher rates of fearful attachment than did happily married controls. Paralleling these observations, Downey and Feldman (1996, Study 4) found that rejection-sensitive men doubted their partners' commitment to the relationship and exaggerated their partners' relationship dissatisfaction.

Second, evidence is emerging that a subset of abusive men have a personality profile that includes hypersensitivity and reactivity to rejection, qualities corresponding to two of the core components of our conceptualization of RS—a readiness to perceive rejection and a tendency to overreact

to perceived rejection. Based on an extensive review of the literature, Holtzworth-Munroe and Stuart (1994) identified a group of dysphoric/borderline batterers who are extremely sensitive to interpersonal slights and who tend to overreact to trivial interpersonal disputes. Similarly, Dutton and colleagues (Dutton, 1995; Dutton et al., 1994) provided evidence that abusive men show heightened levels of Borderline Personality Organization, a key component of which is a tendency to react with extreme anger in situations where rejection by significant others is possible or perceived.

Third, experimental studies on the cognitions of violent husbands suggest that rejection situations are particularly likely to elicit attributions of intentional negativity, anger, and incompetent behavioral responses (Dutton & Browning, 1988; Holtzworth-Munroe & Anglin, 1991; Holtzworth-Munroe & Hutchinson, 1993). For example, Dutton and Browning (1988) found that the angry responses of maritally violent men to videotaped male-female conflicts were most pronounced when the scenario involved an anticipated loss of the relationship. By contrast, violent and nonviolent husbands' reactions to other negative incidents involving their spouses have been found to be similar (Holtzworth-Munroe & Hutchinson, 1993).

Rejection Sensitivity and Alternative Maladaptive Approaches to Relationships

Although there is considerable indirect evidence for a link between RS and intimate violence, there is also reason to believe that not everyone who is sensitive to rejection is equally vulnerable to becoming violent toward one's romantic partner. Drawing primarily on Horney (1937), we have previously identified two maladaptive interpersonal strategies that rejection-sensitive people may adopt to minimize exposure to the rejection they fear (Feldman & Downey, 1994). Whereas one strategy may increase the risk of intimate violence, the

other strategy may be associated with reduced risk.

One strategy that rejection-sensitive people may use to avoid rejection is by investing in securing intimacy and unconditional love in the belief that "If you love me, you will not hurt me" (Horney, 1937, p. 96). High investment in a relationship coupled with anxious expectations of rejection should make people especially vulnerable to perceive and to overreact to minor or ambiguous cues of rejection in a significant other's behavior. In the extreme, intimacyseeking high RS people may be vulnerable to responding to perceived rejection with physical aggression. Thus, we expect that intimacy-seeking high RS men will show heightened risk of intimate violence.

An alternative strategy that high RS people may use to avoid rejection is to shun intimate relationships in the belief that "If I withdraw, nothing can hurt me" (Horney, 1937, p. 96). Thus, intimacyavoidant high RS people may attempt to shield themselves from rejection through reduced involvement in discretionary intimate relationships such as close friendships and serious romantic relationships. We expect that they will show a wariness about social relationships. Even when intimacyavoidant high RS men do get into relationships, their wariness about investing in the relationship may make it relatively easy for them to withdraw in response to anticipated or perceived rejection from their partners. Whereas this strategy may reduce the risk of stormy interpersonal relationships for which intimacy-seeking high RS people are at risk, it entails a loss of opportunities for attaining the sense of being accepted that has been missing from the lives of intimacy-avoidant high RS people.

The two maladaptive approaches to interpersonal relationships identified above are also captured in attachment theorists' descriptions of the anxious-avoidant and anxious-ambivalent adult attachment styles. Drawing on Ainsworth's (e.g., Ainsworth, Blehar, Waters, & Wall, 1978) description of anxious-avoidant and anxious-ambivalent attachment style in children, Hazan and

Shaver (1987)characterized avoidant adults as having difficulty with intimacy and trust and anxious-ambivalent adults as combining an intense desire for emotional closeness with overt concern about rejection (Hazan & Shaver, 1987). Parallels exist between Hazan and Shaver's anxious-ambivalent and anxious-avoidant styles and the Bartholomew and Horowitz's (1991) preoccupied and fearful styles, which as noted earlier have been found to characterize maritally violent men. We have previously shown that young adults exhibiting either an avoidant or ambivalent style in their relationships are characterized by heightened sensitivity to rejection (Feldman & Downey, 1994).

In sum, evidence from distinct research traditions supports the view that sensitivity to rejection is a vulnerability factor for two maladaptive styles of coping with intimate relationships. The likelihood that RS would lead to increased risk of intimate violence depends on which style the high RS person adopts to cope with extreme sensitivity to rejection.

Goals of the Study

Prior evidence implicating rejection concerns in intimate violence has focused exclusively on clinically referred samples. This study, in contrast, examined the link between rejection concerns and intimate violence link in a nonclinical population of college-age men. Our goal was to establish whether having anxious expectations of rejection is a risk factor for dating violence in college men who are highly invested in romantic relationships (i.e., intimacy seeking). We also tested whether having anxious expectations of rejection is associated with fewer discretionary close relationships (i.e., close friendships, serious dating relationships) and heightened social avoidance and distress in college men who show relatively low investment in romantic relationships (i.e., intimacy-avoidant). Figure 1 summarizes our model, linking anxious expectations of rejection with reduced involvement in intimate discretionary relationships on

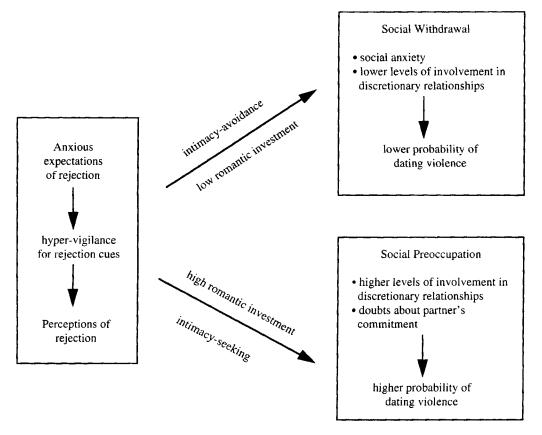


Figure 1. Linking anxious expectations of rejection with dating violence.

the one hand and intimate aggression on the other.

Method

Sample and procedure

The sample consisted of 217 male undergraduate students who participated in the Relationship Project, an ongoing study of undergraduates' dating relationships. Three times during the academic year posters seeking participants for a questionnaire study on relationships were placed at various locations around campus. Interested parties were given three options for participation. They could receive and return questionnaires through the mail, they could come to the laboratory to complete the questionnaires, or they could pick up questionnaires at designated times from project

staff at locations in campus dormitories and dining halls. The results did not differ as a function of recruitment procedure or time of recruitment. To ensure that participants did not participate in the study on more than one occasion, each participant provided his name on a sheet of paper that was not attached to the questionnaire. The participant's name was then linked with the questionnaire data via a numeric code. Participants completed a consent form describing the study as seeking to increase knowledge of college students' relationships.

When participants returned the completed questionnaire, they received \$5 to \$7 depending on the length of the questionnaire, which differed across recruitment sessions. The questionnaire always began with demographic questions and questions about dating history. Participants then completed the Rejection Sensitivity Question-

naire. Next, they completed a set of additional questionnaires that are not used in the present report. The exact questionnaires varied across the recruitment sessions, but typically included the Beck Depression Inventory and a measure assessing desirable characteristics in a dating partner. Participants then completed a measure of violence in their current or most recent dating relationship. The rationale for this ordering of measures was that participants would be more comfortable answering sensitive questions when preceded by less sensitive questions rather than vice versa. To test whether the ordering of the questionnaires affected participants' responses and the association among them, we conducted a pilot study in which 50 respondents completed the measure of dating violence before completing the Rejection Sensitivity Questionnaire and 50 completed the two measures in the reverse order. There were no significant differences in the levels of RS, investment in romantic relationships, or dating violence as a function of order of presentation.

Fifty-nine percent of the participants were Caucasian, 25% were Asian or Asian-American, 4% were Hispanic, 5% were African-American, and 7% reported other ethnic/racial backgrounds. The racial composition is representative of the undergraduate population of the college from which the sample was recruited. The mean age was 18.9 (SD = 1.5). The majority of students were in their first or second year of college.

Measures

Participants provided basic demographic information and information about the number and length of their dating relationships. In addition, they completed the following measures.

Rejection Sensitivity Questionnaire (RSQ). A complete description of the measure is given in Downey and Feldman (1996). Because our theoretical model proposes that anxious expectations of rejection by signifi-

cant others are at the core of RS, the construct is operationalized as anxious expectations of rejection in situations that afford the possibility of rejection by significant others. The structure of the measure and the way RS scores are calculated reflect our adoption of an expectancy-value model (Bandura, 1986) of anxious expectations of rejection. Consequently, the focus of our theoretical interest is the sample of individuals who not only perceive rejection as likely (expectancy dimension) but who are also concerned about its prospect (value dimension). These two dimensions covary only weakly with each other (see Downey & Feldman, 1996).

Specifically, the Rejection Sensitivity Questionnaire (RSQ) asks participants to indicate the extent to which they anxiously expect rejection in 18 hypothetical interpersonal situations depicting the participants asking someone they know to do something for them (e.g., "You ask a friend to do you a big favor"; "You ask your boyfriend or girlfriend to move in with you"; "You ask your parents to come to an occasion important to you"). For each hypothetical situation, participants first answered a question about their degree of concern about the outcome (e.g., "How concerned or anxious would you be over whether or not your parents would want to come?") on a 6-point scale ranging from 1 (very unconcerned) to 6 (very concerned). Next they indicated the likelihood that the other person(s) would respond to their demand in an accepting fashion (e.g., "My parents would want to come") on a 6-point scale ranging from 1 = very unlikely to 6 =very likely. High likelihood of this outcome represents expectations of acceptance and low likelihood represents expectations of rejection.

To calculate a score of RS for each situation, respondents' rejection expectancy was weighted by their degree of concern over its occurrence. The score on expectancy of acceptance was reversed to index their expectancy of rejection. The reversed score was then multiplied by their degree of concern. A total (cross-situational) RS

score for each participant was computed by summing the RS scores for each situation and dividing by the total number of situations.

As reported in Downey and Feldman (1996), principal-component factor analysis supported averaging across different situations in order to construct an overall RS score. The scores on the RSQ are normally distributed and show good internal consistency (a = 83; Downey & Feldman, 1996, Study 1). The test-retest correlation for the measure is .83 over a 2-week period, and .77 over a 4-month period. These suggest that the RSQ is a reliable measure of the anxious-expectations-of-rejection component of RS. Downey and Feldman (1996) also provided evidence of the measure's validity. The RSQ scores predicted feelings of rejection in response to ambiguously intentioned rejection by a confederate interactant (Downey & Feldman, 1996, Study 2) and of attributions of hurtful intent to the negative behavior (e.g., inattentiveness) of a new romantic partner (Downey & Feldman, 1996, Study 3). Downey and Feldman (1996, Study 3) also provided evidence that the RSQ was not redundant, in terms of its predictive utility, with established personality constructs to which it is conceptually and empirically related, including introversion, neuroticism, adult attachment style, social anxiety, social avoidance, and selfesteem.

In the present sample the mean and median score on the RSQ was $9.8 \, (SD = 2.86)$ and the internal reliability, Cronbach's alpha, was .82. The range was $1.7 \, \text{to} \, 18.6$. A similar distribution of scores had been found in other independent samples of college students (Downey, 1997).

Investment in intimate relationships. Relationship investment was operationalized as the extent to which participants considered the ability to establish romantic relationships to be personally important to them and whether they behaved as though this ability was important. It was assessed by two items embedded in a 24-item measure developed by Neeman and Harter (1984) to

assess the personal importance of a variety of interpersonal and non-interpersonal domains (e.g., relations with parents, academic achievement, personal appearance) to individual college students. Participants were instructed to think about how important these things were for how they felt about themselves as a person. It was stated explicitly that these questions did not concern whether the participants thought these qualities should be important either for themselves or for others or even whether these qualities were important to the society; rather, the questions concerned the personal importance that participants attached to each quality. Using a format adapted from Harter (1982), respondents were asked to indicate how true each statement was of them on a scale from 1 ("not really true of me") to 4 ("really true of me"). Investment in romantic relationships was operationalized by participants' responses to the following two items: "Some students do not feel the ability to establish romantic relationships is important" (item 4); "Some students feel that being able to establish romantic relationships is important" (item 16). Responses to the first item were reversed and the mean of the two items was calculated. Pearson r correlation between the two items was .77 (p < .0001) for this sample. The average score on the measure was 3 (SD = .77).

To help establish the validity of the relationship investment measure, we assessed its relationship with students' responses to the continuous Adult Attachment Style Questionnaire (Levy & Davis, 1988), which requires people to indicate their degree of agreement on a 7-point scale with each of three descriptions of adult attachment style: secure, avoidant (characterized by an avoidance of intimacy), and ambivalent (characterized by a pursuit of intimacy). Regression analyses based on a subsample of study participants (n = 165) revealed significant independent associations between relationship investment and both avoidant attachment and ambivalent attachment, controlling for rejection expectations. As expected, relationship investment

was negatively associated with avoidant attachment ($\beta = -.22$, p < .004) and positively associated with ambivalent attachment ($\beta = .17$, p < .04).

Dating violence. Dating violence in participants' current or most recent dating relationship was estimated from their responses to the physical aggression subscale of the Conflict Tactics Scale (Straus, 1979). The Conflict Tactics Scale is a comprehensive and widely used index of the type and frequency of tactics employed to resolve conflict. The measure shows a stable factor structure and moderate test-retest and interrater reliability (O'Leary & Arias, 1988; O'Leary et al., 1989; Straus, 1979, 1990). Participants are instructed to think of situations in which they had conflicts with their current or most recent partner and to indicate how often they had enacted each of the physical aggression behaviors included in the Conflict Tactics Scale. The physical aggression subscale consists of nine items, beginning with the least coercive item and ending with the most coercive one. In this study, participants indicated the frequency with which they had done each of the nine types of physical aggression to a partner on a 6-point scale (0 = never, 1 = once, 2 =twice, 3 = a few times, 4 =once a month, 5 = once a week). The highest end of the rating scale (5 = once a week) was slightly different from that of the standard rating scale of the Conflict Tactics Scale (5 = morethan once a month). Because of the skewed nature of the scores on the Conflict Tactics Scale in the present study, we dichotomized dating violence scores. A score of 0 denoted the absence of any physical violence whereas a score of 1 denoted that at least one incident of dating violence had occurred.

Overall, 11% of participants reported at least one violent incident in their current or most recent dating relationship. This number is lower than the numbers reported in some other studies (e.g., White & Koss, 1991). This reflects the exclusion of threats of aggression against partners or aggression against objects from our definition of vio-

lence. Moreover, our participants reported only violent acts they had perpetrated against their current or most recent dating partner rather than violence in any relationship.

Involvement in discretionary close relationships. We operationalized involvement in discretionary close relationships in terms of the number of serious dating relationships participants had been in and the number of close friends they currently had. Specifically, involvement in serious dating relationships was indexed by participants' responses to the question "How many of your dating relationships would you call serious or committed?" (M = 1.34, SD = 1.45). Participants were also asked the total number of dating relationships they had ever been involved in (M = 5.76, SD = 6.10).

Involvement in close friendships was operationalized by responses to the following two questions, which are from the Social Network Index (Cohen, 1991; Cronbach's alpha = .76): (1) How many close friends do you have? (people you feel at ease with, can talk to about private matters, and can call on for help); (2) How many of these friends do you see or talk to on the phone at least once every two weeks? (none = 0, 1 or 2 = 1, 3 to 5 = 2; 6 to 9 = 3, 10 or more = 4). Only a subset of the sample answered the latter two questions (n = 85) because the questions were omitted from our questionnaires in the third recruitment session (M = 2.11, SD = .94). These participants did not differ significantly from the larger sample on other relevant variables.

Social Avoidance and Distress Scale. The Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969) assesses people's anxiety or distress about public social situations and their tendency to avoid such situations. This measure was completed by a subset of 72 participants recruited in our third recruitment session. These participants did not differ significantly on other relevant variables from participants who were not given this measure. The measure consists of 14 statements

about distress or anxiety in public social situations or situations involving unfamiliar people (e.g., "I am usually nervous with people unless I know them well") and 14 statements about avoidance of social situations (e.g., "I try to avoid situations that force me to be sociable"). Respondents are asked to indicate whether each statement is true or false of them. A summary score was obtained by taking the sum of all the items, after correcting for reverse-scored items (M = 7.42, SD = 6.04).

Results

Rejection sensitivity and dating violence

We conducted ordinary linear squares (OLS) regression analyses to assess whether high RS men who were highly invested in romantic relationships showed an increased risk for being violent toward their romantic partners.1 Rejection sensitivity and romantic investment were uncorrelated (r = .01). We regressed dating violence (presence or absence) on RS, romantic investment, and the interaction between RS and romantic investment. Table 1 gives the unstandardized regression coefficients yielded by this analysis. The interaction between RS and romantic investment was positive and significant, indicating that the impact of RS on dating violence was moderated by level of romantic investment (see Jaccard, Turrisi, & Wan, 1990). Controlling for participants' age or ethnicity did not alter this result or any of the results reported below.

Figure 2 shows the predicted probability of dating violence for men scoring at the 25th and 75th percentile on RS and on romantic investment. Figure 2 illustrates that participants who were relatively high in both RS and romantic investment showed the highest probability of relationship violence.

Rejection sensitivity and involvement in discretionary intimate relationships

We also tested the prediction that high RS men who were low in intimate investment would report less involvement in discretionary close relationships indexed by lifetime number of serious dating relationships and number of current close friends. First, we regressed lifetime number of serious dating relationships on RS, romantic investment, and the interaction between RS and romantic investment, entering total number of any dating relationships that participants had ever been involved in as a control variable. Results of this regression analysis, presented in Table 1, revealed a significant interaction between RS and romantic investment. Figure 3 shows the predicted number of serious dating relationships in men scoring at the 25th and 75th percentile on RS and on romantic investment. Figure 3 illustrates that, consistent with predictions, men who were high in RS and low in romantic investment reported relatively few serious dating relationships.

Next, we regressed number of current close friends on RS, romantic investment, and the interaction between RS and romantic investment. As can be seen in Table 1, the interaction between RS and romantic investment was significant. Similar to our results with dating relationships, high RS participants who were low in romantic investment reported having relatively fewer close friends. Figure 4 shows the predicted number of close friends in men scoring at the 25th and 75th percentile on RS and on romantic investment.

Rejection sensitivity and social avoidance and distress

Finally, we regressed the social avoidance and distress scale scores on RS, romantic investment, and the interaction between RS and romantic investment. Regression analysis revealed a significant interaction between RS and romantic investment (see Table 1) such that high RS men who were low in romantic investment showed higher

Logistic regression analyses yielded similar results to those found with OLS regression. However, to maintain comparability across analyses that included both continuous and dichotomous dependent variables, we used OLS regression in all analyses.

Table 1. Unstandardized regression coefficients from regression analyses linking dating violence, level of involvement in discretionary relationships, and social avoidance and distress with rejection sensitivity and romantic investment

	Intercept	Total Number of Dating Relationships	Rejection Sensitivity (RS)	Romantic Investment (RI)	RS×RI	dR^2 for Addition of RS \times RI	Total R ²
Dependent Variable Probability of dating	<i>b</i> .53*	<i>p</i>	<i>b</i> 05**	b 18**	b .02**	.046	**90'
violence $(n = 211)$ Number of serious dating	2.71**	.14**	(.10) 25**	(.07)	(.17) .08**	.022	.37**
relationships $(n = 217)$ Number of close friends	6.14**	**(**)**	(10) 50**	(.19)** 99*	(.08) .13**	.087	.13**
(n = 85) Social Avoidance & Distress $(n = 72)$	-11.71**	1	(17) 2.28** (.38)**	(.10) 4.12** (26)**	(04) 54* (02)	.071	.25**

Note: Predicted values given in Figures 2 through 5 are based on these regression equations. The second row of entries for each independent variable reports the zero-order correlations with each of the dependent measures.

* p < .05. ** p < .05. ** p < .01.

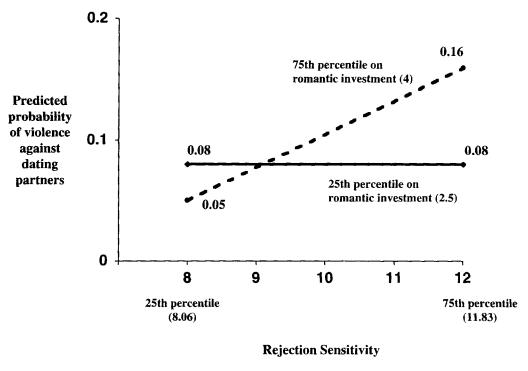


Figure 2. Predicted probability of violence toward a dating partner as a function of rejection sensitivity and romantic investment.

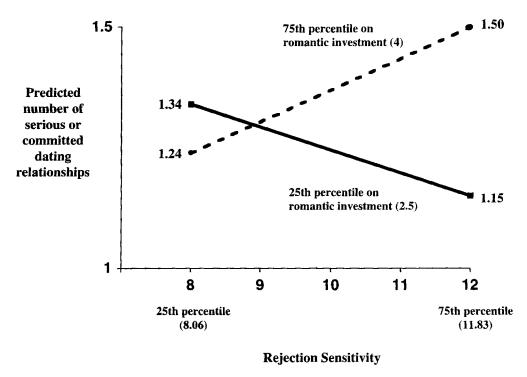


Figure 3. Predicted number of serious or committed dating relationships as a function of rejection sensitivity and romantic investment.

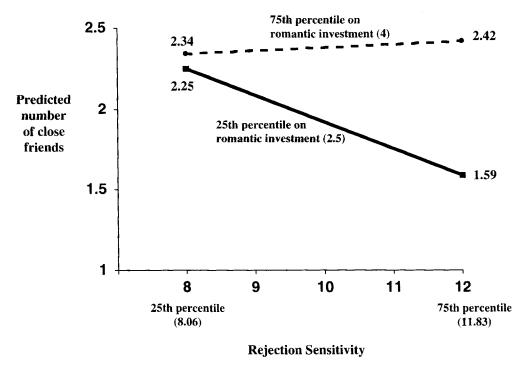


Figure 4. Predicted number of close friends as a function of rejection sensitivity and romantic investment.

social avoidance and distress scores. Figure 5 shows the predicted social avoidance and distress scores for men scoring at the 25th and 75th percentile on RS and on romantic investment.

Discussion

Our findings show that among college men who report relatively high investment in romantic relationships anxious expectations of rejection predict dating violence. Among men who report relatively low investment in romantic relationships, anxious expectations of rejection predict reduced involvement in discretionary close relationships with friends and romantic partners and, more generally, increased distress in and avoidance of social situations. This pattern of results is consistent with the model depicted in Figure 1, which outlines two maladaptive approaches to relationships that men who anxiously expect rejection can adopt to avoid rejection.

In documenting a link between rejection expectations and intimate violence, our findings extend prior empirical and clinical evidence (e.g., Dutton & Browning, 1988; Dutton, 1994; Dutton et al., 1994; Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Stuart, 1994; Walker, 1984) depicting maritally violent men as excessively concerned about the possibility of rejection to the dating relationships of an unselected, nonclinical sample of young adult males. However, in indicating that among college men the association between anxious expectations of rejection and dating violence is limited to those who are invested in romantic relationships, our study appears to contradict the findings of Dutton et al. (1994) that, among married male batterers, the fearful attachment style was related to violence to an even greater extent than the preoccupied attachment style. As noted in the introduction, the fearful attachment style resembles our conceptualization of intimacy-avoidant high RS, and the preoccu-

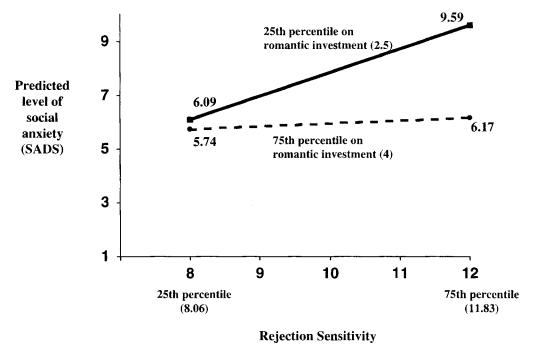


Figure 5. Predicted level of social anxiety as a function of rejection sensitivity and romantic investment.

pied style resembles intimacy-seeking high RS.

This apparent contradiction is probably an artifact of the different research designs and samples used in the two studies. The study by Dutton et al. (1994) differed from our study in two pertinent respects. First, their sample was selected on the outcome variable of interest to us, intimate violence. Their participants consisted of clinically referred male batterers who had enacted serious violence against their partners. Second, their participants had been in marital relationships that were presumably serious and committed. By contrast, our participants were college students who were unselected for either the occurrence of violence in their relationships or the nature or quality of their relationships. We found that whereas intimacy-avoidant high RS men resembled intimacy-seeking high RS men in the overall number of romantic relationships in which they had been involved, intimacy-avoidant high RS men were less

likely than intimacy-seeking high RS men to become involved in serious relationships. Given that we have hypothesized that sensitivity to rejection by a significant other increases the risk of intimate aggression, it follows that the rejection expectations-dating violence link should be strongest in serious, committed relationships. Once in valued, committed relationships, such as those studied by Dutton et al. (1994), there is no reason why intimacy-avoidant high RS men should be less likely than intimacy-seeking high RS men to overreact with violent outbursts when they perceive rejection from their significant other. In fact, given the reluctance and fear that intimacy-avoidant high RS men must overcome to invest in and commit to a serious relationship, it would not be surprising if they showed a heightened reactivity to perceived rejection when in such relationships, putting them at even greater risk than intimacy-seeking high RS men for violence against a romantic partner.

Mediators of the link between rejection expectations and dating violence

Although we have demonstrated an association between anxious expectations of rejection and intimate violence, the task of establishing evidence for the intermediary mechanisms hypothesized in the introduction is not yet completed. As described earlier, findings from our previous research provide support for the hypothesized mediational process. Specifically, we have shown that anxious expectations of rejection prompt a readiness to attribute rejecting intent to the source of an ambiguously intentioned rejection and a tendency to overreact with angry thoughts, feelings, and action plans in response to perceived rejection.

Research on the social-cognitive characteristics of aggressive individuals provides additional support for the hypothesized process. Especially pertinent is the evidence that maritally violent men attribute more hostile behavioral intentions to their wives than do nonviolent men, particularly in scenarios involving rejection by the wife (Holtzworth-Munroe & Anglin, 1991; Holtzworth-Munroe and Hutchinson, 1993; see Holtzworth-Munroe, 1992, for a review). Evidence of a specific link between rejection expectations and a readiness to make hostile attributions in aggressive individuals is provided by Dodge and Somberg's (1987) study of aggressive boys. When aggressive boys, who are known to chronically expect rejection (Dodge, 1980), were induced by a prospective playmate's comment to expect rejection in a specific situation, they responded with an increase in hostile attributions to hypothetical negative or ambiguous situations. The prospective playmate's comment did not evoke an increase in hostile attributions among nonaggressive boys.

In sum, both our research on the implications of RS for intimate relationships and research on the social-cognitive antecedents of aggression provide support for the account of the link between anxious expectations of rejection and dating violence outlined in Figure 1. Clearly, the intermediary steps in this process need to be tested in future research.

Moderators of the processes linking rejection expectations and dating violence

Links among the intermediary steps outlined in Figure 1 are undoubtedly moderated in ways that can reduce the probability that anxious expectations of rejection will lead to violence. In this article we have offered evidence that investment in romantic relationships is one such moderator. We have suggested that reduced investment in relationships reduces the likelihood that high RS men will enact intimate violence, because intimacy-avoidant high RS men are less likely to be in situations that activate anxious expectations of rejection from a significant other, prompting a tendency to perceive and overreact to rejection.

But, even among intimacy-seeking high RS men, the perception of rejection may not always elicit an angry overreaction. Some high RS men may respond to perceived rejection with dejection and depression rather than anger. The predominant reaction experienced following a perceived rejection may depend on whether they blame themselves or the other person for the rejection. Even when men do experience intensely angry thoughts and feelings following a perceived rejection, the likelihood that these thoughts and feelings will be expressed in physical aggression may depend on their self-regulatory competencies, the ways in which they have learned to express their anger in their families, and the prevailing social norms about violence against women.

In sum, whereas we have proposed that rejection expectations are a risk factor for dating violence, the link between these two variables is viewed as neither simple nor direct. It is not surprising, therefore, that rejection expectations and relationship investment together explain relatively low amounts of the variance in college men's violence toward romantic partners.

Two types of violence: Reflexive or reflective?

The account that we have proposed of the processes linking rejection expectations with intimate violence presumes the aggressive act to be reactive. It is also possible that some men who expect and are concerned about rejection may use violence or threats of violence proactively so as to coerce a partner whose commitment they doubt into remaining in the relationship. In their work with aggressive boys, Dodge and his colleagues (Dodge, Lochman, Harnish, Bates, & Pettit, 1997) identified subtypes of reactively and proactively aggressive boys. For the reactive subtype, aggression results from a "reflexive" loss of control in the face of perceived provocation. Conversely, for the proactive subtype, aggression is "reflective" behavior enacted to achieve an instrumental goal. There may be similar subtypes among men who behave aggressively toward their romantic partners; unfortunately, with the current data set it is not possible to examine whether these subtypes exist, and, if so, whether both types are characterized by rejection expectations (cf. Holtzworth-Munroe & Stuart, 1994).

Links between exposure to family violence and adult intimate violence

In an earlier study (Feldman & Downey, 1994), we found heightened levels of RS in young adults exposed to family violence during childhood. In combination with findings reported in this article, this finding suggests that RS may mediate the link between exposure to family violence and violence in adult intimate relationships. The modest association consistently observed between exposure to family violence during childhood and enactment of violence in adult relationships (e.g., Huesman, Eron, Lefkowitz, & Walder, 1984; Kalmuss, 1984; Malamuth, Sockloskie, Koss, & Tanaka, 1991; Straus et al., 1980; Widom, 1989) indicates considerable discontinuity as well as continuity across generations. Thus, adequate mediational models must posit processes with the potential either to facilitate or inhibit intergenerational transmission of aggression (Dodge, Bates, & Pettit, 1990; Downey & Walker, 1989). The mediational process implied by our data permits two alternative interpersonal responses to childhood exposure to violence. The intimacy-seeking approach to RS should facilitate intergenerational continuity in violence whereas the intimacy-avoidant approach to RS should inhibit continuity.

The question of why some high RS individuals pursue intimate relationships whereas others avoid them is still unresolved. Attachment theorists have hypothesized that consistent rejection prompts avoidance of relationships, whereas intermittent rejection prompts an ambivalent preoccupation with relationships; however, empirical support for this suggestion is mixed (Downey, Bonica, & Rincon, in press). It may be that similar rejection experiences can prompt distinct reactions depending on temperamental or personality characteristics. For example, a child high in behavioral inhibition may be more likely to respond to rejection with avoidance, whereas a child low in behavioral inhibition may be more likely to become preoccupied with securing acceptance.

Caveats and Conclusions

Whereas the findings reported in this article provide evidence consistent with our model of the role of RS in intimate violence, the data are limited in a number of ways. First, because the data are cross-sectional, we cannot draw unambiguous conclusions about the causal direction of the relationship between RS and violence. Similarly, our results with respect to relationship investment and actual involvement in discretionary relationships cannot rule out the alternative explanation that intimacy-avoidant high RS men reported less investment in relationships because they have had fewer friends and romantic partners. Future work will need to test these causal links with longitudinal data.

A second potential limitation of our study is the reliance on self-reports. The social proscription against male violence toward women on college campuses may have led our participants to underreport the violence they perpetrated against dating partners. Finally, our investigation focused on a college student sample, in which the typical act of violence is mild, involving shoving or slapping. The advantage of this sample is that it allowed us to investigate the psychological processes underlying violence in a nonclinical sample for whom the particular exigencies of marriage, parenthood, and economic dependence are not operating. Nonetheless, it remains to be established whether RS is associated with more severe violence.

These caveats notwithstanding, our results add to the growing evidence for the centrality of individual differences in expectations and concerns about rejection in generating individual differences in people's functioning in intimate adult relationships. The specific finding that rejection expectations are associated with the use of violence in romantic relationships in men who are highly invested in romantic relationship should be viewed as a first step in testing our model of the role of RS in men's violence toward romantic partners.

References

- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Erlbaum.
- Ayduk, O., & Downey, G. (1999). [Interpersonal anger to hypothetical partner rejection scenarios in rejection sensitive men]. Unpublished raw data.
- Bandura, A. (1986). Social foundations of thought and action. Englewood Cliffs, NJ: Prentice-Hall.
- Barnard, G. W., Vera, H., Vera, M., & Newman, G. (1982). Till death do us part: A study of spouse murder. Bulletin of the American Academy of Psychiatry & the Law, 10, 271-280.
- Bartholomew, K., & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Social and Personality Psychology*, 61, 147–178.
- Bonica, C., & Downey, G. (1999). Rejection expectations: Causes and consequences for internalizing difficulties.
- Browne, A. (1988). Family homicide: When victimized women kill. In V. B. Van Hasslet, R. L. Morrison, A. S. Bellack, & M. Hersen (Eds.), Handbook of family violence (pp. 271–289). New York: Plenum Press.
- Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. New York: Basic Books.
- Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation. New York: Basic Books.
- Bowlby, J. (1980). Attachment and loss: Vol. 3. Loss, sadness, and depression. New York: Basic Books.
- Cohen, S. (1991). Social supports and physical health: Symptoms, health behaviors, and infectious diseases. In A. L. Greene, E.M. Cummings, & K.H. Harraker (Eds.), Life-span developmental psychology: Perspectives on stress and coping (pp. 213–234). Hillsdale, NJ: Erlbaum.
- Dodge, K. (1980). Social cognition and children's aggressive behavior. *Child Development*, 51, 162–170.
- Dodge, K., & Somberg, D. (1987). Hostile attributional biases among aggressive boys are exacerbated under conditions of threat to self. *Child Development*, 58, 213–224.

- Dodge, K., Bates, J. E., & Pettit, G. S. (1990). Mechanisms in the cycle of violence. *Science*, 250, 1678–1683.
- Dodge, K., Lochman, J. E., Harnish, J. D., Bates, J. E., & Pettit, G. S. (1997). Reactive and proactive aggression in school children and psychiatrically-impaired chronically assaultive youth. *Journal of Ab*normal Psychology, 106, 37-51.
- Downey, G. (1997). [Rejection sensitivity]. Unpublished raw data.
- Downey, G., Bonica, C., & Rincon, C. (1999). Rejection sensitivity and conflict in adolescent romantic relationships. In W. Furman, B. Brown, & C. Feiring (Eds.), The development of adolescent romantic relationships (pp. 148–174). New York: Cambridge University Press.
- Downey, G., & Feldman, S. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Social and Personality Psychology*, 70, 1327-1343.
- Downey, G., & Walker, E. (1989). Social cognition and adjustment in children at risk for psychopathology. Developmental Psychology, 25, 835-845.
- Downey, G., Khouri, H., & Feldman, S. (1997). Early interpersonal trauma and adult adjustment: The mediational role of rejection sensitivity. In D. Cicchetti & S. Toth (Eds.), Rochester Symposium on Developmental Psychopathology: Vol. VIII. The effects of trauma on the developmental process (pp. 85-114). Rochester, NY: University of Rochester Press.
- Downey, G., Lebolt, A., Rincon, C., & Freitas, A. (1998). Rejection sensitivity and children's interpersonal difficulties. *Child Development*, 69, 1074-1091.
- Dutton, D.G. (1994). Behavioral and affective correlates of borderline personality organization in wife assaulters. *International Journal of Law and Psychiatry*, 17, 265–277.
- Dutton, D.G. (1995). Male abusiveness in intimate relationships. *Clinical Psychology Review*, 15, 567–581.

- Dutton, D.G., & Browning, J.J. (1988). Concern for power, fear of intimacy, and aversive stimuli for wife assault. In G. Hotaling, D. Finkelhor, J.T. Kirkpatrick, & M.A. Straus (Eds.), Family abuse and its consequences: New directions in research (pp. 130–175). Newbury Park, CA: Sage.
- Dutton, D.G., Saunders, K., Staromski, A., & Bartholomew, K. (1994). Intimacy anger and insecure attachment as precursors of abuse in intimate relationships. *Journal of Applied Social Psychol*ogy, 24, 145–156.
- Feldman, S., & Downey, G. (1994). Rejection sensitivity as a mediator of the impact of childhood exposure to family violence on adult attachment behavior. Development and Psychopathology, 6, 231–247.
- Harter, S. (1982). The perceived competence scale for children. *Child Development*, 53, 87-97.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Heider, F. (1958). The psychology of interpersonal relations. New York: Wiley.
- Holtzworth-Munroe, A. (1992). Social skill deficits in maritally violent men: Interpreting the data using a social information processing model. Clinical Psychology Review, 12, 605–617.
- Holtzworth-Munroe, A., & Anglin, K. (1991). The competency of responses given by maritally violent versus nonviolent men to problematic marital situations. Violence & Victims, 6, 257–269.
- Holtzworth-Munroe, A., & Hutchinson, G. (1993). Attributing negative intent to wife behavior: The attributions of maritally violent versus nonviolent men. *Journal of Abnormal Psychology*, 102, 206–211.
- Holtzworth-Munroe, A., & Stuart, G. (1994). Typologies of male batterers: Three subtypes and the differences among them. Psychological Bulletin, 116, 476-497
- Holtzworth-Munroe, A., Stuart, G., & Hutchinson, G. (1996). Violent versus nonviolent husbands: Differences in attachment patterns, dependency, and jealousy. Unpublished manuscript.
- Horney, K. (1937). The neurotic personality of our time. New York: Norton.
- Huesman, L.R., Eron, L., Lefkowitz, M., & Walder, L. (1984). Stability of aggression over time and generations. Developmental Psychology, 20, 1120-1134.
- Jaccard, J., Turrisi, R., & Wan, C. K. (1990). Interaction effects in multiple regression. Quantitative applications in the social sciences. Newbury Park, CA: Sage.
- Kalmuss, D. (1984). The intergenerational transmission of marital aggression. *Journal of Marriage and the Family*, 46, 11–19.
- Kelley, H. (1979). Personal relationships: Their structure and processes. Hillsdale, NJ: Erlbaum.

- Levy, M. B., & Davis, K. (1988). Lovestyles and attachment styles compared: Their relations to each other and to various relationship characteristics. *Journal of Social and Personal Relationships*, 5, 439–471.
- Malamuth, N.M., Sockloskie, R.J., Koss, M.P., & Tanaka, J.S. (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting* and Clinical Psychology, 59, 670-681.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structures. *Psychological Review*, 102, 246–268.
- Neeman, K., & Harter, S. (1984). The self-perception profile for college students. Unpublished manuscript, University of Denver.
- O'Leary, K.D., & Arias, I. (1988). Assessing agreement of reports of spouse abuse. In G.T. Hotaling, D. Finkelhor, J.T. Kilpatrick, & M.A. Straus (Eds.), New directions in family violence research (pp. 218–227). Newbury Park, CA: Sage.
- O'Leary, K.D., Barling, J., Arias, I., Rosenbaum, A., Malone, J., & Tyree, A. (1989). Prevalence and stability of physical aggression between spouses: A longitudinal analysis. *Journal of Consulting and Clinical Psychology*, 57, 263–268.
- Sroufe, L. A. (1990). Considering normal and abnormal together: The essence of developmental psychopathology. *Development and Psychopathology*, 2, 335–347.
- Straus, M. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scale. *Journal* of Marriage and the Family, 41, 75–88.
- Straus, M. (1990). The Conflict Tactics Scale and its critics: An evaluation and new data on validity and reliability. In M.A. Straus & R.J. Gelles (Eds.), Physical violence in American families: Risk factors and adaptations to violence in 8,145 families (pp. 49-74). New Brunswick, NJ:Transaction Publishers
- Straus, M., Gelles, R., & Steinmetz, S. (1980). *Behind closed doors: Violence in the American family*. New York: Anchor.
- Walker, L.E. (1979). *The battered woman*. New York: Harper & Row.
- Walker, L. E. (1984). The battered woman syndrome. New York: Springer.
- Watson, P., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33, 448-457.
- White, J., & Koss, M.P. (1991). Courtship violence: Incidence in a national sample of higher education students. Violence and Victims, 6, 247–256.
- Widom, C. S. (1989). Child abuse, neglect, and adult behavior: Research design and findings on criminality, violence, and child abuse. *American Journal* of Orthopsychiatry, 59, 355–367.