

CRITICISM AND SOCIAL SUPPORT IN INTIMATE RELATIONSHIPS

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ABSTRACT

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Previous research has demonstrated the importance of intimate partner support and criticism to health, but less is known about how these behaviors are regulated and expressed in relationships. The present research examines individual differences and social cognitive processes that may shape support and criticism in romantic relationships.

Chapter 1 describes a study designed to test gender differences in intimate partner support. Forty college couples engaged in recorded, laboratory interactions. Using video-recall methods, participants and independent observers rated each partner's behavior at periodic intervals within interactions. Results indicated that, compared to men on average, women sought more support but received the same amount of support. According to participants' ratings, women were also more responsive to partners' varying support needs over the course of an interaction, whereas observers' data indicated no gender differences in partners' responsiveness. Findings are discussed in light of previous research on gender differences and methods for behavior measurement.

Chapter 2 describes two studies designed to test a dual-process model of criticism and social support in young adults' romantic relationships. Evidence indicates that intentions play a limited role in guiding social behavior, particularly for behaviors that are well-practiced in stable contexts. The studies hypothesized that individuals'

behavioral intentions would predict their future criticism and support of romantic partners, but that intentions would be a stronger predictor in newer (versus longer lasting) relationships. Study 1 employed daily diary methods to capture actions in everyday life ($N = 79$ individuals), whereas Study 2 used video recall procedures to measure actions during focused laboratory discussions ($N = 50$ couples). Results were consistent across studies. Individuals' intentions predicted their subsequent behavior, but partners in newer (versus older) relationships were more likely to carry out their support intentions. Although the expected pattern of results was found for support, the intention-behavior relationship for criticism was not moderated by relationship length. Implications for intervention and directions for future research are discussed.

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CHAPTER 1

GENDER DIFFERENCES IN INTIMATE PARTNER

SUPPORT AND RESPONSIVENESS

When adults experience stress in their everyday lives, they often turn to a romantic partner for comfort or aid. A partner's response at these times can affect individual well-being (see Cohen, 2004; Kiecolt-Glaser & Newton, 2001) and relationship health (e.g., Barry, Bunde, Brock, & Lawrence, 2009; Kurdek, 2005; Pasch & Bradbury, 1998). Individuals often identify inadequate partner support as a major reason for relationship dissatisfaction and dissolution (Baxter, 1986), whereas received support (measured by recipients' self-report) is associated with improvements in daily relationship well-being (Gable, Reis, & Downey, 2003). Couples who display high quality support during laboratory interactions are happier (e.g., Dehle, 2007; Julien, Chartrand, Simard, Bouthillier, & Bégin, 2003) and have better long-term outcomes than other couples (Pasch & Bradbury, 1998).

Given social support's central role in romantic relationships, it is important to understand individual differences in the provision and experience of intimate partner support. According to a long-standing view in the field, the support gap hypothesis (Belle, 1982), women provide more support than men do in heterosexual relationships. However, previous studies have revealed few observable differences in men's and women's supportive behaviors (e.g., Pasch, Bradbury, & Davila, 1997; Verhofstadt, Buysee, & Ickes, 2007). Instead recent research suggests an alternative hypothesis: that men and women differ in their tendency to meet their partner's support needs or

preferences (e.g., Cutrona, Shaffer, Wesner, & Gardner, 2007; Neff & Karney, 2007; Xu & Burleson, 2001). The goals of the present study were to test this hypothesis and to examine whether intimate partner support predicted relationship outcomes 12 months later.

Gender Differences in Social Support

In the psychology literature and in popular culture, women are often characterized as superior providers of social support (Belle, 1982; Cutrona, 1996). Belle (1982) hypothesized that within marriages women provide more support than they receive. Men and women are also thought to differ in their supportive styles, with men offering more instrumental support (e.g., information, advice, direct aid) and women offering more emotional support (e.g., empathy, validation, caring) (Barbee, Cunningham, Winstead, Derlega et al., 1993; Kunkel & Burleson, 1999). These differences in turn are thought to contribute to the greater health benefits men receive from marriage compared to women (for a review, see Kiecolt-Glaser & Newton, 2001).

Do men and women differ in the quantity or types of support they provide to partners? Evidence for this hypothesis primarily comes from studies of social support outside of marriage, which suggest that women produce more emotion-focused and feeling-centered supportive messages than men produce (for reviews, see Kunkel & Burleson, 1999; MacGeorge, Gillihan, Samter, & Clark, 2003). Some data also suggest that men and women differ in their global perceptions of spouses' supportiveness. For example, in a study of older couples, Vinokur and Vinokur-Kaplan (1990) found both spouses agreed that the wife was the more supportive partner within the marriage.

Vanfossen (1981) found that husbands rated their spouses as more affectionate, affirming, and reciprocating than did wives.

In contrast to global self-report studies, diary and observational research has yielded results inconsistent with the support gap hypothesis. When individuals provide daily ratings of their partners' behavior, men and women often report that they received similar types and amounts of support from partners (e.g., DeLongis, Capreol, Holtzman, O'Brien, & Campbell, 2004; Neff & Karney, 2005), and in some instances men have reported that they provide more support in the relationship (e.g., Iida, Seidman, Shrout, Fujita, & Bolger, 2008; Kleiboer, Kuijer, Hox, Schreurs, & Bensing, 2006). Laboratory studies similarly have found little evidence that women provide more support in romantic relationships (e.g., Cutrona & Suhr, 1994; Pasch et al., 1997; Pasch & Bradbury, 1998; Verhofstadt, Buysee, Ickes, Clereq, & Peene, 2005). When laboratory studies have found gender differences, gender has explained relatively little of the variance in observed behavior (MacGeorge, Graves, Feng, Gillihan, & Burleson, 2004; Verhofstadt et al., 2007).

Support Responsiveness

What explains the discrepant findings from global self-report and observational studies? One possible answer is that, rather than providing a greater amount of support than men, women provide support that better matches their partners' needs and accordingly are viewed as more supportive. Women may be more likely to meet their partners' overall desired levels of support (support adequacy, Xu & Burleson, 2001) or may be better at timing their aid to meet partners' changing needs over time (support responsiveness, Neff & Karney, 2005). There are reasons to believe that the match

between the provider's behavior and the stressed partner's needs may be more important than the type of support provided (see Cutrona & Russell, 1990; Dehle, Larsen, & Landers, 2001). Provision of responsive support requires not only a willingness to help a partner but also sensitivity to the partner's goals and the ability to respond effectively. Recent evidence indicates that individuals who receive support that matches their needs or preferences are happier in their relationships than other individuals (e.g., Cutrona, 1996; Dehle et al., 2001) and perceive their partners to be more validating, caring, and understanding (Cutrona et al., 2007).

Several recent studies of romantic relationships have yielded findings consistent with the notion that men and women differ in their support adequacy and responsiveness. For example, although men and women appear to receive similar amounts of support from partners, studies suggest that women desire and seek more support from their partners (e.g., Edwards, Nazroo, & Brown, 1998; Verhofstadt et al., 2007; Xu & Burleson, 2001), describe their feelings more often (Cutrona, Suhr, & MacFarlane, 1990), and receive less adequate emotional and esteem support from partners (Xu & Burleson, 2001). Studies of the timing of men's and women's support also suggest gender differences. Bolger and colleagues (1989) found that on days when spouses experienced more work-related stress, wives were more likely than husbands to increase their own workload at home, presumably to lessen burden on their husbands. Using a similar daily diary design, Neff and Karney (2005) found that, compared to husbands, wives provided better (i.e., less negative) support on days when partners experienced more stress. They also found that frequency of wives' support during laboratory discussions was related to the difficulty of the problem discussed by the couple, whereas frequency of men's

support was not. Using observational methods, Cutrona and colleagues (2007) coded spouses' speech turns during support-focused discussions and found that wives were more likely than husbands to provide emotional support after their partners disclosed feelings. Together these findings suggest that women may be more responsive providers of some forms of support than are men.

Overview of the Present Study

The primary goal of the present study was to examine gender differences in intimate partner support and responsiveness during a laboratory-based interaction. Although previous research suggests that women may provide more responsive support than men, observational data regarding such gender differences are scarce (e.g., Cutrona et al., 2007; Neff & Karney, 2005). Self-report studies can tell us whether men and women differ in their perceptions of partners' behavior, but observational research is necessary to verify behavioral differences. In addition, when paired with video-recall procedures, observational methods allow comparison of insider and outsider perspectives of relationship events (for a review, see Welsh & Dickson, 2005). These methods are useful for identifying where cognitive and motivational biases may be influencing individuals' support perceptions (see Lakey & Drew, 1997). To date, no studies have applied video-recall methods to the study of partner support responsiveness.

In the present study, 40 couples completed two videotaped supportive discussions and provided periodic ratings of their support seeking, received emotional support, and received informational support during a video-recall procedure. Using participants' and observers' ratings of support behavior, we compared men's and women's responses to partners' support seeking. Based on the previous literature, we hypothesized that men and

women would provide similar amounts of emotional and informational support, as judged by both observers and recipients, but that women would seek more support and receive less adequate support (i.e., have a greater discrepancy between their overall sought and received support). We also explored whether women were more responsive than men to their partners' changing levels of support seeking within the course of an interaction. Lastly, based on previous research linking wives' observed support to long-term marital outcomes (Pasch & Bradbury, 1998), we tested whether men's and women's support behavior and perceptions predicted relationship status 12 months later.

Method

Participants

Using flyers and in-class announcements, we recruited 40 dating and married couples from a university population for "a study of couple interactions." Participants were awarded research credit for undergraduate psychology courses or entry into a lottery to win a restaurant gift certificate. Couples included undergraduate students and members of the university community who had been together for at least 6 months. Couples were 70% Caucasian, 10% Asian American, and 17.5% interracial and had been together for an average of 1.5 years (range 0.5 – 5.7). Participants' median age was 20 years (range 18-32), and their relationship satisfaction varied ranging from 2.3 (low-to-moderate satisfaction) to 5.9 (high satisfaction). Of the 40 couples who completed the study, 34 provided follow up data at 12 months. Of these, 17 couples (50%) had broken up. A current email address was not available for 3 of the couples who were lost-to-follow-up, and the other 3 couples did not reply to email contact. Follow-up attrition was not associated with relationship duration or satisfaction ($t(38) = 0.60$ and 0.14 , $ps > .6$).

Procedure

Interested couples contacted the experimenter to schedule a laboratory visit. In the laboratory, an experimenter greeted the couples and obtained informed consent. Couples were then brought into a room with a video camera and were left alone for 10 minutes to acclimate to the recording room. When the experimenter returned, she provided the couple with standardized instructions for the first of three digitally recorded, 10-minute interactions. The recorded interactions, which were administered in randomized order, included two support-focused discussions and one problem-solving discussion.

Standardized instructions were provided before each task. For supportive interactions, participants were instructed to identify 2 to 3 personal worries or concerns. They were told, “You may choose something you would like to change about yourself or a problem you are currently facing.” Partners were directed to select “something meaningful to you” and to select a personal concern rather than a problem with their partner. Common topics included concerns about work/school, personal improvement, and other close relationships. Each partner had the opportunity to discuss his or her topic for 10 minutes while the other partner was directed to respond naturally, “as you might respond at home.” Thus, each partner had a turn as the helper and a turn as the helpee. For the problem-solving interactions, couples were given a few moments to select the top 2 to 3 problems facing their relationship. After they had defined several problems in the presence of the experimenter, they were asked to discuss the top problem and to “try to reach a mutually satisfactory resolution.” For both interactions, couples were directed to move on to a second topic if they resolved the first topic. We do not discuss the problem-solving interactions further below, because these were not the focus of the present study.

After completing the interactions, participants were taken to separate rooms where they reviewed and rated the recorded interactions in randomized order. As participants watched each tape, they were instructed to “try to reexperience the interaction and recall what you had been thinking and feeling at the time of the discussion.” A research assistant stopped each recording at 2-minute intervals, and participants completed the self-report measures. After reviewing each interaction, participants rated how similar the interaction was to their discussions at home (0 = *not at all*, 6 = *very much so*). They reported that interactions were quite realistic ($M = 5.5$, $SD = 1.2$). Twelve months after couples completed the laboratory visit, they were contacted to determine their relationship status.

Independent observers later watched the recorded interactions and rated each partner’s support at 2-minute intervals corresponding to participants’ ratings. The order of coding was randomized by participant, such that coding of partners within a couple was conducted at different times (weeks to months apart). The author trained three undergraduate women in the Partner Support Rating System (Dehle, 1999). The PSRS was used to measure the quality and intensity of emotional support and informational support during the interactions. When coders reached adequate reliability on practice tapes, as measured by an intraclass correlation (ρ_I) of .70 or greater, coders moved on to rating the study interactions.

Measures

Relationship quality. The Relationship Assessment Scale (RAS; Hendrick, 1988) is a 7-item unifactorial measure of relationship satisfaction that measures the extent to which the relationship is characterized by love and satisfaction, has problems, and meets

one's needs and expectations. Previous research has found that the RAS has excellent internal reliability and test-retest reliability in diverse couples (Hendrick, Dicke, & Hendrick, 1998). The RAS is highly correlated with other popular self-report measures of relationship satisfaction (Hendrick et al., 1998; Vaughn & Matyastik Baier, 1999) and discriminates between dating couples who remain together and dating couples who break up (Hendrick, 1988). In the present study, the RAS items were rated on 7-point scales and averaged (0 = *very low satisfaction*, 6 = *very high satisfaction*). Internal consistency was very good (Cronbach's $\alpha = .86$).

Received support. Participants rated the amounts of emotional support (ES) and informational support (IS) they received during the interaction in which they were the helpee. These ratings were provided each time the recording was stopped (for 5 intervals). Single items were used to measure ES ("your partner responded to you with empathy, reassurance, and affection") and IS ("your partner attempted to help you solve a problem by offering suggestions or feedback"). Each item was rated on a 7-point scale (0 = *not at all*, 6 = *very much so*). Previous research has demonstrated high levels of recipient-provider agreement with respect to enacted support behaviors (for a review, see Cohen, Lakey, Tiell, & Neeley, 2005).

Support seeking and support adequacy. During the same pass over the recorded interaction in which the participant played the helpee, participants rated their level of support seeking (for 5 intervals). Support seeking was measured using a single item ("You sought support from your partner"), which was rated on a 7-point scale (0 = *not at all*, 6 = *very much so*). Support adequacy was computed for each interval as the difference between the average amount of support (ES and IS) received and the amount

of support sought. These scores were averaged across the 5 time intervals providing a single support adequacy score. Positive scores reflect sufficient levels of support and negative scores reflect insufficient levels of support. Support adequacy varied across individuals and time points ranging from -5.0 to 4.2.

Observed support. Observational ratings of ES and IS were obtained using the Partner Support Rating System (PSRS, Dehle, 1999). In contrast to event-based coding systems, which are designed to measure the frequency of an event or behavior, the PSRS was designed to measure the quality and intensity of support behavior. The system includes codes for five major forms of support (informational, tangible, emotional, esteem, network) and for undermining behavior. The support behaviors are rated on 5-point Likert scales, ranging from *no support* (0) to *frequent, high quality support* (4). Previous research indicates that the different behaviors can be rated reliably using the PSRS (Dehle, 2007) and that PSRS ratings of ES and IS uniquely contribute to the prediction of marital satisfaction.

In the present study, three undergraduate women were trained in the PSRS and used the system to code each partner's IS (behaviors offered to provide guidance, information, and problem-solving assistance) and ES (behaviors provided to comfort or console including expressions of empathy, showing physical affection, and offering reassurance). For each participant and interaction interval, the judges' ratings were averaged yielding an observed ES score and an observed IS score. Interrater reliability for ES and IS scores averaged across raters was excellent across the interaction segments, $\rho_{1[3,3]} = .80 - .90$, (Shrout & Fleiss, 1979),

Relationship outcome. Participants were contacted by e-mail 12 months after they completed the study and were asked to report their relationship status (*together* versus *separated*).

Results

Table 1 presents descriptive statistics on men's and women's interaction support as judged by recipients (*received support*) and independent observers (*observed support*). Recipients reported moderate levels of partners' emotional and informational support ($M_s = 3.40 - 3.83$; scale range = 0 – 6); recipients' ES and IS ratings were strongly correlated ($r = .60$). Using the Partner Support Rating Scale (range 0 – 4), observers judged low levels of ES and IS ($M_s = 0.44 - 0.83$). Consistent with previous findings regarding the PSRS (Dehle, 2007), observers' ratings of ES and IS were not correlated ($r = -.02$).¹

Did Men and Women Differ in the Amounts of Support They Provided during Interactions?

Gender differences in received and observed support were tested with repeated measures ANOVA. Power to detect a medium effect size of $f = .25$ at an α level of .05 was lower than desirable at a mean value of 64%. Accordingly, to reduce the likelihood of Type II error, we maintained an α level of .05 despite conducting multiple tests. As shown in Table 1, gender differences in support provision were not statistically significant and were small in size, according to Cohen's (1988) thresholds for small, medium, and large effects (η^2_p values of .01, .10, and .25). Thus, support recipients and observers judged male and female partners to provide similar levels of support.

Did Men and Women Differ in the Amounts of Support They Sought or in the Adequacy of Their Support?

As can be seen in Table 1, recipients sought moderate levels of support (*sought support*), with women seeking more than men. When we examined the discrepancy between individuals' received support and sought support (*support adequacy*), we found that men and women on average received adequate support (scores ≥ 0). Gender differences were found in support adequacy, such that, compared to women, men's received support tended to exceed their sought support to a greater degree (see Table 1). However, this finding did not reach the threshold for statistical significance ($p = .07$). Gender differences in support adequacy and sought support were small to medium in size. Note that individuals who sought more support on average (than others) also tended to receive more support ($r = 0.63$), which may account for the relatively small gender difference in support adequacy.

Multilevel Model Specification for Analyses of Gender Differences in Support Responsiveness

On average, men and women in our sample received adequate support. Did they provide support that was similarly responsive to their partners' changing needs over time? To answer this question, we used participants' sought support to predict partners' ES and IS. We then tested whether men and women differed in their tendency to respond to their partners' support seeking. Our data conformed to a multilevel structure, in which repeated measures of support from male and female partners were nested within 40 couples and crossed with 5 time intervals. Because of the data's structure, we estimated multilevel models (Raudenbush & Bryk, 2002) using the MIXED procedure of SAS

(SAS Institute, 2001). Specifically, we adapted Bolger and Shrout's (2007) Dyadic Process Model, which was developed to analyze repeated-measures data on dyads (see also, Kenny, Kashy, & Cook, 2006; Laurenceau & Bolger, 2005). This model is an ideal choice for these data, because it allows one to control for nonindependence of members within the couple and nonindependence of time points within a dyad member.

The models included within- and between-persons levels, Levels 1 and 2, respectively. Level 1 measures of support and support seeking were collected at 5 time points during each interaction, yielding 10 records per couple. To control for nonindependence of data within individuals, we assumed an autoregressive pattern in which Level 1 residuals from adjacent time intervals were modeled as more similar than residuals from more distal intervals. We also controlled for data dependency within each couple by allowing partners' errors and intercepts (mean outcomes) to be correlated within a couple.¹ A separate model was estimated for each outcome variable (*received ES*, *received IS*, *partners' observed ES*, and *partners' observed IS*). The generic Level 1 equation is presented below:

$$\begin{aligned} Outcome_{ict} = & (woman)_{ict} [\pi_{0wc} + \pi_{1wc} (sought\ support)_{wct}] \\ & + (man)_{ict} [\pi_{0mc} + \pi_{1mc} (sought\ support)_{mct}] + e_{ict}, \end{aligned}$$

where $Outcome_{ict}$ is the support score for recipient i ($w =$ woman, $m =$ man) in couple c ($c = 1 - 40$) at time t ($t = 1 - 5$); $(woman)_{ict}$ is a dummy variable coded 1 for female support recipients and 0 for male support recipients; $(man)_{ict}$ is a dummy variable coded 1 for male recipients and 0 for female recipients; π_{0wc} and π_{0mc} are the mean outcomes (across time) for each recipient in couple c when sought support was the person's mean level; π_{1wc} and π_{1mc} are the man's and the woman's slope coefficients for sought support

in couple c ; and e_{ict} is the within-persons error component, which is assumed to be normally distributed and autocorrelated over time. Note we group-mean centered the *sought support* variable around each individual's mean, which allowed us to examine whether a person's change from his or her average level of support seeking was associated with changes in the outcome variable (see Raudenbush & Bryk, 2002, p. 134-149). Thus, analyses were conducted entirely within persons and couples.

Each Level 1 coefficient had a corresponding Level 2 model, which allowed variation in Level 1 intercepts and slopes to be explained by between-persons variables. Because group mean centering sought support at Level 1 removes information about individuals' means, recipients' mean sought support (across time) was added as a predictor of the intercepts at Level 2. *Mean sought support* was centered around the sample mean, so that the intercepts could be interpreted as the average outcomes. Level 2 equations were:

$$\pi_{0wc} = \gamma_{00w} + \gamma_{01w}(\text{mean sought support})_{wc} + r_{0wc}$$

$$\pi_{0mc} = \gamma_{00m} + \gamma_{01m}(\text{mean sought support})_{mc} + r_{0mc}$$

$$\pi_{1wc} = \gamma_{10w}$$

$$\pi_{1mc} = \gamma_{10m}$$

where γ_{00w} and γ_{00m} are the average outcomes for female support recipients and male support recipients, respectively; γ_{01w} and γ_{01m} are the (between-persons) slope coefficients for recipients' mean sought support; γ_{10w} and γ_{10m} are the (within-persons) slope coefficients for recipients' sought support; and r_{0wc} and r_{0mc} are the errors associated with the female recipient and the male recipient in couple c .²

For each pair of coefficients (e.g., γ_{00w} and γ_{00m} ; γ_{01w} and γ_{01m} ; γ_{10w} and γ_{10m}), gender differences were tested. Results of multilevel modeling analyses are presented in Table 2. In the table, separate coefficients are shown for men and women only where their coefficients differed significantly ($p < .05$).³

Did Men and Women Differ in Responsiveness to Partners' Support Seeking?

We examined gender differences in partner support responsiveness using support ratings from recipients (to assess *perceived responsiveness*) and observers (to assess *observed responsiveness*). Results for perceived responsiveness are presented in the first 2 columns of coefficients in Table 2. Looking at the slope coefficient for mean sought support, we can see that the individuals who sought more support (compared to other participants) received more ES and more IS, and this effect was not moderated by gender (interaction coefficients: ES $\gamma = 0.03$, $SE = 0.10$, $t(76) = 0.29$, $p > .3$; IS $\gamma = 0.08$, $SE = 0.09$, $t(71) = 0.92$, $p > .3$). The slope coefficient for sought support tells us whether people tended to receive more support than was typical for them when they deviated above their mean level of sought support. This coefficient differed by gender for ES (interaction $\gamma = -0.16$, $SE = 0.06$, $t(307) = -2.66$, $p < .01$) and for IS (interaction $\gamma = -0.14$, $SE = 0.07$, $t(289) = -2.16$, $p < .05$). The interactions are plotted in Figure 1. When a man sought more support than was typical for him, he tended to receive more ES and more IS than usual. When a woman sought more support than was typical for her, she tended to receive more IS, but not more ES, than usual. Furthermore, the amount of IS she received for each unit increase in her sought support was less than the amount of IS men received for a similar increase. In sum, men and women were similar in receiving more support (than others) when they sought more support (than others). However,

women were perceived to be more responsive to their partners' varying levels of support seeking over the course of the interaction.

We next examined whether observers' ratings similarly suggested that men were less responsive than women were during the interactions. Results of these analyses are presented in the third and fourth columns of γ coefficients in Table 2. Looking at the slope coefficient for mean sought support, the amount of support recipients sought was unrelated to the amount of observer-rated partner support. These effects were not moderated by gender (interactions, ES $\gamma = -0.02$, $SE = 0.06$, $t(54) = -0.43$, $p > .3$; IS $\gamma = 0.07$, $SE = 0.04$, $t(58) = 1.57$, $p > .1$). Within individuals, deviations from a person's mean sought support was not associated with an increase in the partner's observed ES or observed IS. Again no gender interactions were found (interactions, ES $\gamma = -0.003$, $SE = 0.04$, $t(313) = -0.10$, $p > .3$; IS $\gamma = 0.02$, $SE = 0.04$, $t(285) = 0.55$, $p > .3$). In short, observational data were inconsistent with gender differences in responsiveness and, indeed, suggested that men and women were similarly non-responsive with respect to both emotional and informational support.

Did Men and Women Differ in Their Tendency to Notice Their Partners' Support Seeking?

Another way to test gender differences in support responsiveness is to look at individuals' perceptiveness in detecting partners' support seeking. If the responsiveness hypothesis were true, we might expect that women would be more perceptive of partners' support seeking. To answer this question, we used a multilevel model similar to the previous models. The predictor variables included recipients' sought support (for each time interval) and mean sought support (across intervals); the outcome variable was

partner-rated sought support. Results of these analyses indicated that men and women were similarly perceptive with respect to partners' support seeking. Partners judged participants who sought more support (than others) to seek more support (than others) (see Table 2); gender did not moderate this effect (interaction $\gamma = -0.11$, $SE = 0.09$, $t(48) = -1.28$, $p > .2$). However, neither men nor women detected when their partners' deviated from their typical level of support seeking within an interaction (interaction $\gamma = 0.02$, $SE = 0.05$, $t(299) = 0.45$, $p > .6$). Thus, results were inconsistent with the notion that men and women differ in tendency to notice their partners' support seeking.

Did Intimate Partner Support Predict Relationship Status at 12 Months?

A final question was whether men's and women's support was related to couples' relationship outcomes 12 months later. Follow-up data were available for 34 couples, of whom 17 were still together (coded 0) and 17 had broken up (coded 1). Simple correlations between support variables and relationship satisfaction and outcome are presented in Table 3. Given our sample size, power to detect a correlation of 0.30 was 42%, and we maintained an α level of .05 in all tests. Correlations were small to medium in size. Women's received ES, women's provision of ES, and participants' relationship satisfaction were associated with fewer break-ups. Although the associations between relationship satisfaction and support variables were not statistically significant, the direction of effects suggested that higher levels of support characterized happier relationships.

To test whether participants' support variables predicted outcomes above and beyond the effects of relationship satisfaction, we used hierarchical logistic regression analysis. Couples' mean RAS was entered into the model as the first block, and men's

and women's support variables were added as a second block. Because model fit was poor when all variables were included in the model, post-hoc analyses were conducted to test whether variables that were moderately correlated with outcome, including women's received ES and women's observed ES (see Table 3), predicted outcomes after controlling for relationship satisfaction. Variables again were entered in two blocks, and results are shown in Table 4. We found that women's received support uniquely contributed to the prediction of outcome beyond couples' initial relationship satisfaction. Thus, the relationship was more likely to endure when women received more support and when observers judged women to provide more emotional support, although the latter finding failed to meet the .05 criterion of significance.

Discussion

The primary goal of the present study was to test gender differences in intimate partner support and responsiveness. Consistent with previous research (e.g., Neff & Karney, 2005; Verhofstadt et al., 2007), we found that the quality of support men and women provided differed little, both as judged by the recipients and by independent observers. Although men and women received similar types and amounts of support, women reported seeking more support during discussions. Past findings also have indicated that women desire more support (e.g., Dehle et al., 2001; Xu & Burleson, 2001) and attempt to solicit more help from partners (e.g., Cutrona et al., 1990; Pasch et al., 1997; Verhofstadt et al., 2007). In sum, our results were inconsistent with the traditional support gap hypothesis and suggest instead that, to the extent men and women experience support differently in heterosexual relationships, this may be due more to the mismatch

between the recipient's needs and the partner's behavior than to the quality of support provided (see also, Xu & Burleson, 2001).

We also tested the responsiveness hypothesis, the notion that men and women differ in the timing of their support. Evidence for this hypothesis was mixed. We found that when self-report measures were examined, men appeared to be less responsive than women to their partners' changing support needs. In particular, the amount of emotional support women received was unrelated to the amount of support they sought within a given interaction interval. These findings are consistent with results from daily diary research, which similarly relied upon self-report (Bolger, et al., 1989; Neff & Karney, 2005). However, our observational findings indicated no observable differences in the timing of men's and women's support. Indeed, observers' ratings of partner support were unrelated to participants' self-reported support seeking. Furthermore, men and women were similarly perceptive of their partners' efforts to obtain help.

Why did results from participants and observers differ? One possible explanation is differences between the measures' operationalization of emotional and informational support. Observers' ratings also differed from participants' ratings in that observers anchored their judgments based on coding many couples, whereas participants' judgments were probably based on comparisons to partners' typical behavior. Participants were also likely to be influenced by cognitive and motivational biases, such as positive illusions (Murray, Holmes, & Griffin, 1996), that would not affect outside observers. Such biases may account for why observers coded support less frequently and distinguished more finely between different types of support.

If there were no observable differences in their responsiveness, what accounts for men's and women's differing perceptions of one another's supportiveness? It is possible that men's and women's judgments are based on their differing experiences of their partners' responsiveness outside of the laboratory. Within the laboratory, individuals are more or less forced to make time to listen to one another, and in this context, men and women may similarly notice their partners' desires for support. If men, however, are less likely to listen to their partners' concerns in everyday life, women may be biased to perceive their partners as less responsive. Data regarding gender differences in responsiveness in couples' everyday lives have relied solely upon support recipients' self-reports (e.g., Bolger et al., 1989; Neff & Karney, 2005). It would be interesting to see whether daily diary reports from support providers produce similar results.

Our observational findings are inconsistent with results from Cutrona and colleagues (2007), who found that husbands and wives differed in their responsiveness to partners' support seeking. Specifically, they found that wives were more likely to provide emotional support after a partner's feeling statement and to respond negatively after a partner's information request. Thus, women appeared to be more responsive providers of some types of support and less effective providers of other types. The present study differs from theirs in several ways. First, Cutrona and colleagues used a microanalytic observational coding system, which allowed them to examine turn-by-turn sequences of specific support seeking behaviors and responses. Our study is limited in using a general self-report measure of support seeking and in lacking a measure of negative behavior. Given that the match between specific support-seeking behaviors and responses appears

to be important to relationship wellbeing (e.g., Cutrona et al., 2007), distinguishing between these behaviors will be important for future research.

A final goal of our study was to test whether men's and women's support predicted future relationship outcomes. Although we lacked power to examine all of the variables measured, post-hoc analyses revealed that women's received support predicted outcome at 12-month follow-up after variance related to couples' initial relationship satisfaction was statistically controlled. Women's observed support also marginally contributed to this prediction, paralleling Pasch and Bradbury's (1998) finding that observed support from wives (but not from husbands) predicted long-term marital outcomes. Several studies have similarly found that women's measures are more strongly linked to dyadic functioning than are men's measures, leading some to argue that women are the barometers of relationship health (e.g., Acitelli & Antonucci, 1994; Barry et al., 2009; Floyd & Markman, 1983; Julien & Markman, 1991). It is notable that women's received emotional support emerged as the strongest predictor of outcomes in the current study, given that other studies have identified emotional support as an important predictor of relationship health (e.g., Barry et al., 2009; Dehle, 2007; Xu & Burleson, 2004). Received emotional support may be a particularly salient form to women, in that women are more likely than men to report inadequate emotional support in intimate relationships (Xu & Burleson, 2004).

Conclusion and Future Directions

Although the social support literature has focused primarily on individuals' provision of support, our findings highlight the importance of studying the intersection between the recipient's support needs and the partner's response. Men and women may

differ in their goals and preferences, which may contribute to differing experiences of intimate partner support. A strength of the present study was the use of an observational, video-recall design which allowed us to compare insider and outsider perspectives of couples' support behaviors. Given that gender differences were found in perceived (but not observed) responsiveness, our results call into question whether men actually provide less responsive support than women provide, or whether women simply perceive men to be less responsive. Measuring support and support seeking from multiple perspectives will be important to future research in this area.

This study has a number of limitations including only measuring partners' supportive responses (and not their negative responses) and using a non-specific measure of support seeking. Another limitation of the present study was the use of only female raters. It is possible that men view supportive interactions differently than do women and, accordingly, inclusion of male raters may have affected our observational measurement. In addition, the study sample was comprised of well-educated, relatively happy young couples, most who were in dating relationships. Given the cross-cultural differences in individuals' support behavior and preferences (e.g., Taylor et al., 2004; Taylor, Welch, Kim, & Sherman, 2007), it will be important to replicate these findings in other populations.

Endnotes

¹ For further description of this covariance structure and its implementation in SAS, see Bolger and Shrout (2007).

²Note that slopes (γ_{10w} and γ_{10m}) were not modeled as random, because inclusion of the slopes' variances and covariances with the intercepts did not improve model fit.

Accordingly, random effects were specified only for the intercepts and Level 1 residuals.

³We constructed additional models that controlled for initial relationship satisfaction and the order of interactions (i.e., supportive versus problem-solving interactions). We also tested models in which the predictor variables were not centered. Findings were similar across models. We did not examine marital status due to the small number of married couples.

CHAPTER 2

HOW INTENTIONS SHAPE CRITICISM AND SUPPORT

IN INTIMATE RELATIONSHIPS

In their everyday lives, intimate partners enact routine behaviors, such as criticism or social support, that have implications for their physical and psychological health (Cohen, 2004; Kiecolt-Glaser & Newton, 2001) and relationship wellbeing (Bradbury, Fincham, & Beach, 2000). According to lay models, partners' specific actions are assumed to flow from behavioral intentions. Adults report intentions to pursue a wide range of interaction goals within close relationships (e.g., Fitzsimmons & Bargh, 2003; Locke, 2008; MacGeorge, 2001; Waldinger & Schultz, 2006) and often view their own and significant others' behavior as deliberate (Barrowclough & Hooley, 2003; Bradbury & Fincham, 1990). Based on similar assumptions, couples and family therapists may provide partners with information and instruction to help them modify their responses to one another (e.g., Epstein & Baucom, 2002; Stanley, Blumberg, & Markman, 1999; Dixon et al., 2001; Miklowitz & Goldstein, 1997).

Despite lay beliefs regarding the intentionality of behavior in close relationships, research suggests that intentions play a limited role in shaping human behavior (e.g., Strack & Deutsch, 2004; Wood & Neal, 2007). Recent dual-process models (e.g., Metcalfe & Mischel, 1999; Smith & DeCoster, 2000; Strack & Deutsch, 2004) posit that human action is controlled jointly by reflective and impulsive information-processing systems. Whereas reflective processing allows individuals to plan behavior, the impulsive

system allows individuals to respond rapidly and relatively effortlessly to cues that co-occurred with the behavior in the past (Neal, Wood, & Quinn, 2006), as well as to biologically significant stimuli (Strack & Deutsch, 2004). With repetition, actions, such as an intimate partner's kiss hello, are thought become increasingly automated (impulsive) over time. Understanding how intentional and impulsive processes interact to shape intimates' behavior is important, because the underlying mechanism of a behavior has implications for understanding and changing the behavior (e.g., Neal et al., 2006; Verplanken & Wood, 2006).

The goal of the present study was to examine the role of intentions in guiding two clinically relevant behaviors in couple relationships: criticism and social support. Using daily diary methods and observational video-recall methods, we examined whether young adults' intentions predicted their criticism and support of romantic partners and whether intentions were a weaker predictor of behavior in longer-term relationships than in newer relationships. In the sections to follow, we begin by reviewing the literature on social cognitive models of behavior and then present findings from two studies.

Interpersonal Intentions

Personality and social psychologists have long emphasized the central role of intentions in guiding behavior (Allport, 1937; Ajzen & Fishbein, 1980; Murray, 1938). Intentions have been conceptualized as the product of a larger motivation system, reflecting the integration of an individual's goal-related beliefs and values (Ajzen, 1987; Gollwitzer, 1999). Intentions may be formed through effortful deliberation or superficial processing and are thought to be consciously accessible when individuals have the time and the motivation to reflect. According to traditional social cognitive theories, intentions

mediate all but simple motor responses (Ajzen & Fishbein, 2000). Behavioral prediction research has provided abundant support for these models (for reviews, see Armitage & Conner, 2001; Randall & Wolff, 1994; Sheppard, Hartwick, & Warshaw, 1988).

Intentions are strong predictors of a wide range of actions, including interpersonal behaviors that rely on another person's needs or actions, such as talking to a friend or having sex (for a review, see Agnew, 1995).

Of course individuals do not always act as they had intended or in accordance with their values. According to traditional models (e.g., Ajzen, 1991), this occurs because individuals' intentions are based on imperfect knowledge about the behavior's context and consequences. Ignorance of possible barriers to action (e.g., insufficient resources or inopportunity to act) can lead individuals to form unrealistic intentions, which subsequently cannot be carried out. Ignorance regarding the effects of one's behavior (e.g., others' reactions) can lead a person to act in ways that undermine his or her goals. Thus, to the extent that individuals' expectations regarding potential obstacles and outcomes are accurate, individuals should act in ways that reflect their interests.

Dual-Process Models of Social Behavior

In attempting to explain why individuals fail to act on their intentions, other traditions in psychology have emphasized the role of habits or drives (Hull, 1943; Metcalfe & Mischel, 1999), which are thought to guide behavior more intuitively and automatically. The belief that human behavior is guided by more than one underlying process has led to the development of a number of dual-process theories (for a review, see Smith & DeCoster, 2000). Evidence for these models includes findings that behavior can be shaped, without mediation of conscious intentions, by primed stereotypes and

norms (Aarts & Dijksterhuis, 2003; Bargh, Chen, & Burrows, 1996), motivational orientation toward approach or avoidance (Strack & Deutsch, 2004), and contextual cues associated with past behavior performance (Wood & Neal, 2007).

Although dual-process models differ in terminology and focus, models are similar in distinguishing between a rule-based processing system, which operates by logic and language, and an associative processing system, which operates by similarity and contiguity (Smith & DeCoster, 2000). The rule-based system corresponds to an intended pathway to judgments and behavior. This system operates only when motivation and information processing capacity are sufficient, and it also allows for rapid adaptation to new information and vicarious learning (Strack, Deutsch, & Krieglmeyer, 2008). The associative system corresponds to an automatic pathway to behavior. Within this system, drives, affect, cognitions, and response tendencies are directly in memory, reflecting a person's learning over many experiences. The system allows one to respond rapidly, efficiently, and with minimal effort to the environment. However, because this system is resistant to change, it also can also make behavior change difficult. In many dual-process models, the systems operate in parallel and interact to select a response (e.g., Strack & Deutsch, 2004; Metcalfe & Mischel, 1999). When they select different responses, they compete for behavioral control.

Dual-process theories make unique predictions regarding the conditions under which intentions fail to predict behavior. Whereas traditional social cognitive models attribute such failures to unforeseen environmental barriers, dual-process models imply that strong habits or impulses also play a role. Impulsive information processing can undermine a person's intentions in at least two ways. First, the impulsive system may

inhibit or override an intended response by directly activating an incompatible response (Strack & Deutsch, 2004). This is thought to occur when familiar contextual cues trigger unintended habitual responses (e.g., Wood & Neal, 2007), such as when, for example, a spouse habitually cleans up after his partner, despite having resolved to no longer do so. Second, by facilitating retrieval of specific mental concepts, procedures, or goals (Aarts & Dijksterhuis, 2000; Strack & Deutsch, 2004), the impulsive system influences the intentions a person forms in a specific context. Thus, a person's global intentions may be undermined when that person encounters a situation that activates incompatible goals or intentions. For example, a man may withdraw from his partner during an argument despite his global intentions to be a better listener. Evidence for a dual-process view of behavior includes findings that individuals often repeat well-practiced behaviors, even when they report intentions to do otherwise (e.g., Ji & Wood, 2007; Verplanken, Aarts, & Moonen, 1998). Similarly, Ouellette and Wood (1998) found in a meta-analytic review that intentions were weaker predictors of habitual behaviors (i.e., behaviors practiced frequently and in stable contexts) than of non-habitual behaviors.

Implications for Couple Relationships

There are several reasons to believe that dual-process theories have relevance for key relationship behaviors, such as criticism and social support. Experience sampling data show that nearly half of social interactions tend to be repeated each day in the same location (Wood, Quinn, & Kashy, 2002) making it likely that habits form in this domain. Psychologists have suggested that interaction behaviors are particularly likely to be shaped by automatic information processing, given the high frequency of interactions and the salience of interpersonal goals (e.g., intimacy, belonging) (e.g., Baldwin, 1992; Bargh

& Williams, 2006; Fitzsimmons & Bargh, 2003). As partners date and form habits in their relationships, we might expect the impulsive system to increasingly shape their behavior, whereas intentions should have a waning influence on behavior over time.

The Present Research

The goal of the present studies was to examine the role of intentions in guiding criticism and social support in young adults' romantic relationships. Based on the hypothesis that partners' behavior is under intentional control early in relationships and is more impulsive or habitual later in relationships, we predicted that intentions would be a stronger predictor of criticism and support in newer (versus longer-lasting) relationships. We chose to study criticism and support, because these constructs are widely studied in the close relationship literature and are linked to important health outcomes (e.g., Cohen, 2004; Wearden, TARRIER, Barrowclough, Zastowny, & Rahill, 2000). Criticism, identified by Gottman (1994) as one of marriage's "Four Horsemen of the Apocalypse," predicts higher rates of long-term relationship distress and dissolution (Gottman, 1994; Gottman & Levenson, 2000). Criticism also predicts worse health outcomes for patients with a variety of psychiatric and physical illnesses (for a review, see Wearden et al., 2000). In contrast, intimate partner support predicts greater satisfaction (e.g., Barry, Bunde, Brock, & Lawrence, 2009; Kurdek, 2005) and better outcomes in romantic relationships (Pasch & Bradbury, 1998; Simmons, Chambless, & Sayers, 2010). Criticism and social support are also key types of behaviors to study in relation to intentions, because they are targets of change in marital therapy (e.g., Epstein & Baucom, 2002), divorce prevention programs (e.g., Stanley et al., 1999; Schilling, Baucom, Burnett, Allen, & Ragland, 2003), and family/couples interventions for psychiatric illnesses (e.g., Dixon et al., 2001;

Miklowitz & Goldstein, 1997). In the present studies, we conceptualized criticism as the expression of disapproval of the specific actions or global traits of one's partner (e.g., Hahlweg & Conrad, 1983) and social support as an active attempt to help one's partner manage stress (Thoits, 1986). We distinguished between two major classes of support that are thought to help individuals cope with distinct stressors: emotional support (communication of caring) and instrumental support (problem-solving assistance) (Cutrona & Russell, 1990, Cutrona, Schaffer, Wesner, & Gardner, 2007).

We conducted two studies of young adults' criticism and support of romantic partners. In Study 1, we used diary methods to examine partners' tendencies to carry out their daily criticism and support intentions. In Study 2, we used video-recall procedures to examine participants' tendencies to act on their intentions during focused, laboratory-based interactions with their partners. Both study samples were relatively homogeneous and included well-educated adults in relationships lasting 6 months to a few years. We assumed during this early phase of the relationship, individuals were still establishing patterns of criticism and support. We also assumed that partners in longer-lasting relationships had more strongly established behavior patterns (i.e., stronger habits) than partners in newer relationships. We hypothesized (a) that individuals' intentions would predict their criticism and support of partners and (b) that participants in longer-term relationships would be less likely to carry out their criticism and support intentions than participants in newer relationships.

Study 1

Method

Participants and Procedure

We recruited college students in dating relationships lasting at least 6 months for a “study of dating relationships.” Only one member of a couple participated, and this partner was awarded course research credit. Participants completed an online questionnaire (Day 0) and 14 daily diary entries (Day 1-14). Forms were completed online at www.surveymonkey.com. Diary entries were time-stamped to verify compliance, and entries completed too early (before 8 pm) or too late (after 10 am) were considered unreliable and therefore were excluded from analyses (241 entries; 15.2%). In addition, only participants who completed 10 or more valid entries were included in analyses. Thus, of the 135 participants who began the study, 43 women and 36 men (59%) comprised the final sample. Study completers did not differ significantly from non-completers in sex, age, race, relationship duration, or relationship satisfaction ($ps > .05$).

Participants in the final sample ranged in age from 19 to 39 (median 20). In terms of race and ethnicity, 75% were Caucasian, 15% Asian American, and 8% African American. Two male participants (2.5%) were in same-sex relationships. Sixteen individuals (20%) were in long distance relationships (i.e., did not live in the same state or region), and, of these, 14 communicated exclusively by phone and Internet over the 2-week study period. The mean relationship length was 1.61 years ($SD = 1.04$; range 0.5 – 6.0), and relationship satisfaction varied from 2.4 (low-to-moderate satisfaction) to 6.0 (very high satisfaction) on the Relationship Assessment Scale ($M = 4.6$, $SD = 0.9$).

Measures

Relationship quality. Relationship satisfaction was measured using the Relationship Assessment Scale (RAS; Hendrick, 1988). This 7-item scale measures the extent to which a relationship is characterized by love and satisfaction, meets one's needs and expectations, and has problems. The RAS has excellent internal reliability and test-retest reliability in diverse couples (Hendrick, Dicke, & Hendrick, 1998) and is strongly correlated with other popular self-report measures of relationship satisfaction (Hendrick et al., 1998; Vaughn & Matyastik Baier, 1999). Hendrick (1998) found that the RAS discriminates between dating couples who remain together and those who break up. The RAS items were rated on 7-point scales and were averaged (0 = *very low satisfaction*, 6 = *very high satisfaction*). In the present sample internal reliability was very good (Cronbach's $\alpha = .89$), and test-retest reliability, measured using RAS scores from Day 0 (the initial survey) and Day 14, was excellent ($r = .78, p < .001$).

Daily criticism and support. Each evening participants rated the extent to which they criticized or supported their partner that day. Single items were used to measure criticism ("you expressed disapproval of your partner or your partner's behavior"), emotional support (ES, "you responded to your partner with empathy, reassurance, and affection"), and informational support (IS, "you attempted to help your partner solve a problem by offering suggestions or feedback"). Behavior definitions were based on commonly used observational measures of criticism (e.g., Hahlweg & Conrad, 1983) and social support (e.g., Cutrona & Suhr, 1992; Dehle, 2007). Items were rated on 9-point scales (0 = *not at all*, 8 = *very much so*). Because ES and IS were strongly correlated ($r = 0.62$), these scores were averaged to create a single measure of social support. Diary

measures of intimate partners' behavior have yielded high levels of recipient-provider agreement in previous research (for a review, see Cohen, Lakey, Tiell, & Neeley, 2005).

Daily intentions. Each evening participants rated their criticism, ES, and IS intentions for the following day. A single item was used for each (e.g., criticism intentions: "You intend to express disapproval of your partner or your partner's behavior tomorrow"). In accordance with Ajzen and Fishbein's (1980) guidelines on construct measurement for the Theory of Reasoned Action, the behavioral intentions measures were designed to correspond to the behavior measures in action (e.g., "express disapproval"), target (e.g., "of your partner or your partner's behavior"), frequency (at least once), and context (tomorrow). Items were rated on 9-point scales (0 = *not at all*, 8 = *very much so*). The ES and IS intentions measures were highly correlated ($r = 0.80$) and were averaged to yield a single support intentions score

Additional diary measures. Participants also provided daily information about the amount of time they spent with their partners, the type of contact they had with their partner that day (in person versus only by phone/email), and their mood that day. Mood items were developed by Emmons (1991) and included "happy," "pleased," "joyful," "had fun", "worried/anxious," "angry/hostile," "depressed," "frustrated," and "unhappy." Items were rated on 9-point scales (0 = *not at all*, 8 = *very much so*) and were averaged to form a positive affect scale ($\alpha = 0.95$) and a negative affect scale ($\alpha = 0.80$). The affect scales were moderately correlated ($r = -0.42$).

Results

Did participants form daily intentions to criticize or support their partners?

Descriptive statistics are presented in Table 5. On average, participants reported low levels of criticism and criticism intentions and moderate levels of support and support intentions. On average, criticism also occurred less frequently than did support (43% vs. 77% of days).

Multilevel model specification for predicting daily behavioral outcomes

To test whether participants' daily intentions predicted their subsequent behavior and whether relationship length moderated this association, we used multilevel modeling (Raudenbush & Bryk, 2002; Kenny, Kashy, & Cook, 2006). We estimated a two-level model in which days were nested within persons using the MIXED procedure of SAS (SAS Institute, 2001). The first level of the model describes the person's daily behavioral outcome as a function of the previous day's intentions. The daily intentions variables were group-mean centered (i.e., centered around each individual's mean), which allowed us to examine whether a person's change from his or her average level of intentions was associated with changes in the outcome variable. Separate analyses were conducted for each outcome (criticism and support). The generic Level 1 equation was:

$$Outcome_{i(t+1)} = \pi_{0i} + \pi_{1i} (daily\ intentions)_{it} + e_{it},$$

where $Outcome_{i(t+1)}$ is the outcome for person i ($i = 1 - 79$) on day $t + 1$ ($t = 1 - 13$), π_{0i} is the intercept or the mean outcome for person i when the person's intentions were at his or her mean level, π_{1i} is the intentions slope coefficient for person i , and e_{it} is the within-persons error component. Level 1 errors were assumed to be normally distributed and to

have an autoregressive pattern, meaning that a person's residuals from adjacent time intervals are modeled as more similar than residuals from more distal intervals.

The Level 1 intercept and slope coefficients had corresponding Level 2 models, which were used to explain between-persons variation in the coefficients. We tested whether a person's mean outcome depended on the person's *mean intentions* and *years dating*. We also tested whether a person's tendency to carry out his or her intentions depended on a couple's relationship length. Level 2 variables were centered around the grand mean, so that the intercept could be interpreted as the outcome for the average person. The generic Level 2 equations were:

$$\begin{aligned}\pi_{0i} &= \gamma_{00} + \gamma_{01}(\text{mean intentions})_i + \gamma_{02}(\text{years dating})_i \\ &\quad + \gamma_{03}(\text{mean intentions})_i * (\text{years dating})_i + r_{0i} \\ \pi_{1i} &= \gamma_{10} + r_{1i}.\end{aligned}$$

where γ_{00} is the mean outcome for the average participant; γ_{01} and γ_{02} are the (between-persons) slope coefficients for mean intentions and years dating; γ_{10} is the (within-persons) slope coefficient for intentions; γ_{03} tests whether relationship length moderates the mean intentions-behavior relationship; r_{0i} is the intercept error for individual i ; and r_{1i} is the slope error for individual i .¹

Did intentions predict daily criticism and support, and did relationship length moderate the intention-behavior relationships?

Results of the multilevel analyses are presented in Table 6. Participants' daily intentions and mean intentions predicted their daily criticism and support. Looking at the coefficients for daily intentions, we can see that on days when a participant intended to criticize (or support) their partners more than was typical for him or her, the participant

tended to perform more of that behavior the next day. Looking at the coefficient for mean intentions, we similarly see that participants who reported stronger intentions than other participants engaged in more of the behavior. Relationship length did not moderate the mean intentions-behavior association for criticism but did play a moderating role in predicting support (see Table 6). The significant interaction was probed as described by Aiken and West (1991) and plotted in Figure 2. For participants in shorter-term relationships (1 *SD* below the mean, 0.6 years), mean intentions were a strong predictor of their support ($\gamma = 0.78$, $SE = 0.08$, $t = 10.81$, $r = 0.78$; $p < .001$). For participants in longer term relationships (1 *SD* above the mean, 2.7 years), mean intentions were a weaker, but still significant, predictor of their support ($\gamma = 0.39$, $SE = 0.08$, $t = 4.62$, $r = 0.47$; $p < .001$). Thus, participants in newer relationships (vs. longer-term relationships), on average, behave more consistently with their intentions.

Other individual differences were tested as possible confounding variables that could explain the pattern of results. For example, participants in longer-term relationships may have spent less time with partners, and consequently, may have had fewer opportunities to carry out their intentions. We assessed the following possible third variables: participants' sex, relationship satisfaction, average time spent with partner, average daily positive and negative affect, and type of contact with partner during the study period (in person versus only by phone/Internet). To rule out the possibility that one of these variables accounted for our findings, we ran additional models that included each third variable and a term for its interaction with mean intentions. The pattern of results did not change. Relationship length significantly moderated the mean support

intentions-behavior association in all models, whereas none of the third variables moderated this association.

Study 1 Discussion

Results of Study 1 show that, while young adults' intentions predict key behaviors in their intimate relationships, the extent to which intentions predict behavior can depend on the length of a person's relationship. Participants in Study 1 generally carried out their daily criticism and support intentions. However, individuals in newer relationships on average (compared to those in longer-term relationships) were more likely to behave in accordance with their support intentions. These results provide initial evidence for a dual-process model of close relationship behaviors. According to this view, as patterns are established in a person's relationship over time, a person's intentions have a waning influence on his or her everyday behavior. Thus, early in relationships, behavior is under intentional control, whereas later in relationships, behavior is controlled primarily by impulsive information processing. Although our results for social support were consistent with the dual-process view, we found no evidence that participants' tendency to carry out their criticism intentions depended on relationship length.

Study 2

Although the diary methods used in Study 1 have several strengths, including allowing measurement of everyday events and experiences (see Bolger, Davis, & Rafaeli, 2003), they are limited by reliance on subjects' self-report. This introduces problems related to potential reporting biases (e.g., participants' efforts to present a consistent image) and shared method variance, which could inflate the observed association between intentions and behavior. Study 2 was designed to address some of the limitations

of Study 1 and to examine how intentions guide young adults' criticism and support of partners during focused, laboratory-based interactions. Participants engaged in recorded problem-solving discussions and support-focused interactions with partners, and afterwards rated their intentions while viewing the recorded interactions. Study 2 improves upon the first study in a few important ways. First, we used a video-recall procedure that places less demands on participants' memory and, thus, reduces error associated with retrospective reporting. Second, in using standardized interaction tasks, we eliminated some of the potential third variables that could not be controlled in the diary study (e.g., time spent together, type of interaction, and mode of communication). Lastly, we measured intentions and behavior from different sources. Intentions were measured by self-report, and behaviors were coded by outside observers.

Method

Participants

Using flyers and in-class announcements, we recruited 50 heterosexual couples (49 dating, 1 newlywed) from a university campus for a "study of couple interactions." Participants were awarded research credit for undergraduate psychology courses or entry into a lottery to win a restaurant gift certificate. Couples included students and members of the community who had been together for at least 6 months. Participants' median age was 20 years (range 18-32). Couples were Caucasian (66%), Asian American (10%), and interracial (20%) and had been together for an average of 1.5 years ($SD = 1.0$, range 0.5 – 5.7). Couples' relationship satisfaction ranged from 2.3 (low-to-moderate satisfaction) to 5.9 (high satisfaction) on the RAS ($M = 4.7$, $SD = 0.8$).

Procedure

Interested couples contacted the author to schedule an appointment. When couples arrived in the laboratory, a female experimenter brought the couple into a room with a camera. After informed consent was obtained, the couple was left alone for 10 minutes to acclimate to the setting. When the experimenter returned, couples completed three 10-minute recorded interactions in a randomized order; these included a problem-solving discussion and two supportive discussions. Afterwards, participants reviewed the recordings (again in randomized order) and provided ratings of their intentions at 2-minute intervals (for a review of video-recall procedures, see Welsh & Dickson, 2005).

For each interaction, the experimenter provided standardized instructions. In problem-solving discussions, the couple was asked to select the top 2 to 3 problems facing their relationship. The experimenter helped frame each topic as a mutual disagreement rather than an individual complaint (e.g., “We disagree about standards of cleanliness” rather than “You are too messy”). She then told the couple to discuss the top problem and to “try to reach a mutually satisfactory resolution.” If they resolved this problem, they were told to move on to the second problem. Common topics included disagreements about spending time together, communication, and differing values/standards. For supportive interactions, partners were instructed to identify 2 to 3 “things you would like to change about yourself or problems you are currently facing.” They were asked to select a personal concern rather than a problem with the relationship. Each partner had the opportunity to discuss his or her topic for 10 minutes while the other partner was directed to “respond naturally, as you might at home.” Thus, each partner had

turns playing the roles of the helper and the helpee. Common topics included worries about work/school, personal improvement, and other close relationships.

After partners completed the interactions, research assistants took them to separate rooms to watch and rate the recorded interactions. During the video-recall procedure, participants were instructed to “try to reexperience the interaction and recall what you had been thinking and feeling at the time of the discussion.” At 2-minute intervals the research assistant stopped the recording, and the participant completed measures, yielding measures for 5 time intervals. Afterwards participants rated how similar each interaction was to their discussions at home (0 = *not at all*, 6 = *very much so*). These ratings revealed that partners generally perceived interactions to be quite realistic ($M = 5.5$, $SD = 1.2$).

Independent raters later coded the recorded interactions at 2-minute intervals corresponding to participants' ratings. A team of 3 women coded criticism in the problem-solving interactions using Zinbarg and colleagues' (2007) criticism coding system, and a team of 3 different women coded emotional and informational support in the other interactions using Dehle's (1999) Partner Support Rating System. The order of coding was randomized by participant, such that partners within a couple were rated at different times. The author trained the teams in the observational coding systems. When coders reached adequate reliability on practice tapes, as measured by an intraclass correlation coefficient of .70 or greater (Shrout & Fleiss, 1979, $\rho_{[3,3]}$), coders moved on to rating the study recordings.

Measures

Relationship quality. As in Study 1, relationship satisfaction was measured using the averaged item score on the RAS (Hendrick, 1988). Internal consistency in the present sample was very good (Cronbach's $\alpha = .86$).

Observed criticism. Three female judges rated partners' interaction criticism using Zinbarg and colleagues' (2007) adaptation of the criticism code from the *Kategoriensystem für Partnerschaftliche Interaktion* (KPI; Hahlweg & Conrad, 1983). Zinbarg and colleagues' (2007) system measures the intensity (rather than the frequency) of criticism and includes two codes: specific criticism (expressions of disapproval of the partner's behavior, either delivered with a negative tone (*CRS-*) or a positive/neutral tone (*CRS+*)) and devaluation (remarks that devalue the partner in the form of global accusations or insults (*CRD*)). Behaviors are rated on a 5-point scale (0 = *none*, 4 = *a lot*). In the present study, only the *CRS+* and *CRS-* codes were used, because these paralleled our operationalization of criticism. *CRS+* and *CRS-* were summed and then averaged across judges, yielding a single *CRS* criticism score for each participant at each 2-minute time interval. Interrater reliability for *CRS* was excellent across time intervals ($\rho_{1[3,3]} = .87-.90$).

Observed support. Three female judges used the Partner Support Rating System (PSRS, Dehle, 1999) to rate participants' behavior during couples' supportive interactions. The PSRS was designed to measure the quality and intensity of five major forms of support (including informational, emotional, tangible, esteem, and network) and undermining behavior. The emotional support code (ES) and the informational support code (IS) were used in the present study, because these tap the two major classes of

support: communication of caring and problem-assistance (e.g., Cutrona & Russell, 1990). In addition, previous research has found that ES and IS occur frequently during laboratory-based couple interactions (Dehle, 2007) and contribute uniquely to prediction of relationship quality (Barry et al., 1999; Dehle, 2007). IS is defined as behavior offered to provide guidance, information, and problem-solving assistance, whereas ES includes behaviors provided to comfort or console including expressions of empathy, showing physical affection, and offering reassurance. Behaviors are rated on 5-point Likert scale, ranging from 0 (*no support*) to 4 (*high quality, frequent support*). Previous research supports the reliability and the convergent validity the PSRS ES and IS codes (Dehle, 2007). In the present study, judges' scores were averaged yielding an *observed ES* score and an *observed IS* score for each person and for each 2-minute time period. The ES and IS scores were weakly correlated with one another and with criticism ($r_s = -0.03 - 0.06$), and, thus, were analyzed separately. Interrater reliability was excellent for ES and IS ($\rho_{I[3,3]} = .80 - .90$).

Interaction intentions. A single item was used to measure behavioral intentions at each 2-minute time interval: "When the tape stopped, to what extent did you intend to *[perform the behavior]*, going forward?". Behavioral definitions of criticism, ES, and IS were identical to Study 1. Items were rated on 7-point scales (0 = *not at all*, 6 = *very much so*). ES and IS intentions were moderately associated ($r = 0.42$) but were weakly related to criticism intentions ($r_s = -0.05 - 0.01$).

Interaction emotion. Participants also rated their emotions at 2-min intervals using the items from Study 1. Items were summed to form separate positive affect ($\alpha = 0.87$)

and negative affect ($\alpha = 0.70$) scales. The affect scales were moderately correlated in problem discussions ($r = -0.43$) and in supportive discussions ($r = -0.27$).

Results

Interactions and frequency of events

Table 7 presents descriptive statistics. On average, participants reported moderate levels of criticism and support intentions, whereas observers coded low levels of all three behaviors. Participants frequently endorsed ES, IS, or criticism intentions (71-75% of intervals), but observers identified those behaviors less often (criticism, 65%; ES, 25%; IS, 26%).

Multilevel model specification for predicting behavioral outcomes during interactions

Similar to Study 1, we used multilevel modeling to test our main hypotheses. However, analyses were modified to take into account that partners ($n = 100$) were nested within couples ($n = 50$), which in turn were crossed with 5 time intervals. We adapted Bolger and Shrout's (2007) Dyadic Process Model, which was developed to analyze repeated-measures data on dyads. Data are modeled using two levels including a within-dyads level (Level 1) and a between-dyads level (Level 2). Male and female partner outcomes for each couple are conceptualized as a pair of multivariate outcomes at Level 1 (see also Laurenceau & Bolger, 2005). The model controls for nonindependence of members within the couple by allowing the partners' errors and intercepts (mean outcomes) to covary. It also controls for nonindependence of time points within a dyad member by allowing within-persons errors to be modeled in an autoregressive pattern.

We began by fitting Bolger and Shrout's full model to our data. As in Study 1, the Level 1 predictor (*interval intentions*) was group-mean centered, and the Level 2

predictors (*years dating* and *mean intentions*) were grand-mean centered. For each pair of coefficients (men's and women's intercepts and slopes), gender differences were tested. Because no gender differences were found in the fixed effects and model fit was not improved by modeling separate intercept variances, men's and women's coefficients were set to equal. Random effects in the final model included the intercept and men's and women's Level 1 residuals.² Results of these analyses are presented in Table 2.

Did intentions predict interaction criticism and support, and were these effects moderated by relationship length?

Results of the multilevel analyses for the interaction study are presented in Table 8. We found that participants' mean intentions predicted their behavior, whereas a person's intentions to perform more or less of a behavior than was typical for him or her did not predict the person's subsequent behavior. Thus, intentions predicted behavior between individuals but not within individuals. Consistent with findings in Study 1 relationship length did not moderate the mean intention-behavior association for criticism but did moderate this association for social support. The latter finding was significant for IS but failed to meet the criterion for statistical significance for ES ($p \sim .09$). The support interactions are plotted in Figure 3. Probing the interactions revealed that for participants in shorter-term relationships (1 *SD* below the mean, 0.5 years), mean intentions predicted ES ($\gamma = 0.23$, $SE = 0.06$, $t = 3.76$, $r = 0.33$, $p < .001$) and IS ($\gamma = 0.26$, $SE = 0.06$, $t = 4.38$, $r = 0.37$, $p < .001$). For participants in longer term relationships (1 *SD* above the mean, 1.5 years), mean intentions did not significantly predict ES ($\gamma = 0.10$, $SE = 0.05$, $t = 1.95$, $r = 0.18$, $p < .06$) or IS ($\gamma = 0.08$, $SE = 0.05$, $t = 1.65$, $r = 0.15$, $p < .2$).

We assessed possible confounding variables including relationship satisfaction, positive and negative affect, and the quality of interactions (i.e., the extent to which discussions were stressful, conflictual, and resembled discussions at home). When we ran separate models that included each variable and each variable's interaction with mean intentions, we found a similar pattern of results. Years dating moderated the IS intentions-behavior relationship in all models but was significant in only some of the ES models. As in Study 1, none of the third variables moderated the mean support intentions-behavior relationships.

Study 2 Discussion

Using very different methods, Study 2 conceptually replicated the findings of Study 1. We found that young adults' intentions during focused laboratory discussions predicted their observed criticism and support of partners. Thus, participants who generally intended more of a behavior than others were observed engaging in more of that behavior than others, whether the behavior was criticism, emotional support, or informational support. We did not find that, within an individual, a person's immediate intentions predicted their behavior in the subsequent 2-minute interval. However, this may have been due to the relative brevity of time window for behavior performance or due to differences in the wording of the Study 2 intentions measure (i.e., participants reported on their intentions "going forward" rather than "in the next 2-minutes"). Consistent with Study 1 findings, those in longer-lasting relationships were less likely, on average, to behave in accordance with their support intentions than individuals in newer relationships. This interaction reached statistical significance for informational but not emotional support. Also consistent with findings in Study 1, participants were similarly

likely to act on their criticism intentions, irrespective of the length of their relationships. Study 2 findings provide additional evidence for a dual-process model of behavior in romantic relationships.

General Discussion

In the study of human behavior, there is a long tradition emphasizing the role of reason and deliberation. Laypersons and psychologists alike often assume that complex social behaviors, such as criticism and support, flow from behavioral intentions, reflecting a person's beliefs about the likely consequences of an action. Research shows that attributing behavior to personal and controllable factors can be destructive in close relationships, particularly when a person is attempting to explain a significant other's negative behaviors or experiences (Barrowclough & Hooley, 2003; Bradbury & Fincham, 1990). The present research implies, however, that some important behaviors in close relationships are not fully under intentional control, and this may be particularly true of individuals' behavior in longer-lasting relationships. In two studies using diary and video-recall methods, we found that the extent to which young adults' support intentions predicted their actual support of partners depended on relationship length. People in longer-lasting relationships were less likely than others to act in accordance with their support intentions. These findings are consistent with a dual-process view of close relationship behaviors, in which reflective and impulsive processes shape human behavior. To our knowledge, the present studies are the first to provide evidence that relationship experiences may influence a person's ability to carry out specific intentions toward a romantic partner.

In both studies, we found that relationship length moderated the intention-behavior association for social support but not for criticism. Thus, individuals were similarly likely to carry out their criticism intentions, irrespective of the length of a person's relationship. Why did results differ for criticism and support? There are at least three possible explanations for these results. First, previous research has demonstrated that tests of moderation have low power unless one has jointly extreme values of both interaction variables (McClelland & Judd, 1993). Although the support intentions measures had good distributions (particularly for Study 1), the criticism intentions measures had restricted range, which probably reduced the power of the criticism interaction test. Alternatively, the differing findings for criticism and support may be explained within the dual-process model framework. According to participants' own report in the daily diary study, they criticized their partners relatively infrequently in their everyday lives. It is possible then that in the present sample, few if any individuals had formed habits in this domain, and accordingly, criticism was under intentional control throughout the sample.

A third explanation concerns our use of relationship length as a proxy for individuals' experience with a behavior. We assume that those in longer-lasting relationships generally have more experience (and presumably stronger habits) than other individuals. It is possible that this assumption is not warranted for criticism in this population. For example, some partners may have a great deal of experience handling conflict whereas others do not, and this experience may have more to do with characteristics of the partners (e.g., personality) or the dyad (e.g., partners' similarity to one another) than with the relationship's length. Future research could address these

questions by examining different populations of couples, including couples with higher base rates of criticism, as well as distressed couples. In addition, impulsive influences on behavior may be directly assessed by measuring subjective experiences of loss of control or amount of thought required for performance of the behavior (Wood et al., 2002).

The intentions measures were designed to capture absolute intentions to perform a behavior, ranging from no intentions to strong intentions. We did not ask participants to indicate whether they intended to up-regulate or down-regulate their behavior (i.e., to perform more or less of a behavior than usual). Although these constructs are distinct (for example, a person could intend to perform a behavior but to do so less than usual), it is possible that participants conflated these questions. Those who intended to engage in less of a behavior than usual may have indicated “no intentions.” If so, it is unclear whether, compared to others, participants in newer relationships were more likely to carry out their intentions to support partners versus more likely to carry out their intentions to refrain from supporting partners. Intuitively, it seems unlikely that participants formed intentions to inhibit support, making the initial interpretation more probable. Distinguishing between two types of intentions will be important in future research. Given that couples may often form intentions to down-regulate negative behaviors, measuring inhibitory intentions may provide useful information about intimate partners’ ability to regulate negative behaviors over time.

Study Implications

This research has several implications for future research on criticism and support processes within relationships. First, although romantic partners’ behavioral intentions are infrequently studied, with a few exceptions (e.g., Waldinger & Schultz, 2006), our

findings suggest that future investigations in this area may enhance our understanding of intimate relationships. Second, these studies also highlight the importance of attending to the context in which relationship events and behaviors occur. Although previous research has provided valuable information about couples of various types (e.g., married couples, distressed couples, adolescent couples), studies generally have not examined how relationship patterns are established over time within populations of couples. There are a number of interesting questions to be addressed: Are relationship behaviors more malleable at some times (or under some circumstances) than others? If intentions are an important influence on criticism and support, what are the beliefs and values that inform these intentions?

Research in this area may also have implications for clinicians working with couples and families. Recent work in habit and action automaticity (e.g., Neal et al., 2006; Verplanken & Wood, 2006) suggests that different behavioral change strategies are indicated depending on whether a behavior is under habitual or intentional control. Verplanken and Wood (2006) argue that although educational interventions are appropriate for intentional behaviors, persuasion will be insufficient for behaviors that are practiced frequently and in stable contexts. In support of this view, Webb and Sheeran's (2005) meta-analytic review found that informational interventions were effective for changing behaviors that were not easily repeated into habits (e.g., getting a flu shot) but were ineffective for changing habitual behaviors (e.g., eating a healthy diet). In an observational study, Wood, Tam, and Guerrero Witt (2005) found that individuals succeeded at changing everyday habits, such as reading the newspaper, only when relevant features of the performance context (e.g., the presence of other people) changed.

Thus, the mechanism underlying relationship behaviors, such as criticism and support, has implications for clinical intervention and the prognosis for change. Future research in this area may suggest distinct interventions for couples in different stages of development or from different populations.

Strengths, Limitations, and Future Research

Several strengths of the study design increase our confidence in our finding that relationship duration moderates the association between support intentions and behavior. Among these was the use of both observational and self-report methods to assess criticism and support behaviors, which allows us to rule out the possibility that our results are contingent on a specific methodology. In addition, our data collection from a relatively homogeneous sample of couples reduces the likelihood that our results stem from uncontrolled differences in participants' relationship satisfaction, age, cultural background, or education.

Despite these strengths, results should be interpreted with additional limitations in mind. First, the correlational study designs preclude causal inferences. Although we statistically controlled for numerous possible confounding variables, we cannot rule out the possibility of a third variable explanation. Related to this, we did a cross-sectional comparison of individuals in relationships of varying relationship lengths. Accordingly, it is possible that some other systematic difference between individuals (other than relationship experience) explains our results. For example, it is possible that individuals in newer relationships had a greater desire to exhibit positive behaviors and, for that reason, were more likely to carry out their support intentions than were others. Alternatively, those in longer-term relationships may have been less prompt about

carrying out their intentions or may have had fewer opportunities to do so. If so, a traditional reasoned action model could adequately explain our results. Future research could address this problem by examining how individuals change over time. Although also a strength of the study, our investigation of individuals' typical or natural behavior is also a limitation. Because participants were not necessarily dissatisfied with their behavior (and, thus, probably were not trying to act against their impulses for the most part), the present study provides a conservative test of our hypotheses. Examining the regulation of criticism and social support in individuals who are actively trying to change these behaviors may yield a stronger test of the model.

Endnotes

¹ We also tested whether *years dating* predicted the *daily intentions* slope (π_{1i}) at Level 2. This interaction term was not significant in any of the models, indicating that relationship length did not moderate the within-persons association between daily intentions and behavior. Following Snijders and Bosker's (1999) recommendations that variables be removed from models when they do not explain variation in outcomes, we dropped this term from analyses. The final model had five fixed effects (γ_{00} , γ_{01} , γ_{02} , γ_{03} , and γ_{10}) and three random effects (for the within-persons residuals, the intercept, and the slope).

² As in Study 1, we also tested whether *years dating* interacted with *interval intentions* in predicting outcomes and, again, found this term did not contribute to the model's prediction.

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Table 1

Means and standard deviations of men's and women's support variables

	Women		Men		Gender differences		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i> (1, 39)		η^2_p
Received ES	3.82	1.59	3.40	1.56	1.44		0.04
Received IS	3.64	1.45	3.50	1.35	0.30		0.01
Sought support	3.42	1.45	2.60	1.57	7.24	*	0.16
Support adequacy	0.31	1.24	0.86	1.28	3.08	†	0.07
Observed ES	0.54	0.84	0.64	0.98	0.47		0.01
Observed IS	0.62	0.64	0.44	0.66	1.97		0.05

Note: Above are the participants' mean ratings of partners' support (i.e., received emotional support (ES) and informational support (IS)), participants' own support seeking (sought support), and the difference between received and sought support (support adequacy). Observed ES and IS are independent judges' mean ratings of participants' support of partners during interactions. $N = 40$ couples.

† $p < .1$, * $p < .05$.

Table 2

Summary of fixed effects for multilevel models predicting partners' support behavior and perceptions

Effect	Outcomes									
	Partner's ES Received		Partner's IS Received		Partner's ES Observed		Partner's IS Observed		Partner's rating of sought support	
	γ	SE	γ	SE	γ	SE	γ	SE	γ	SE
Recipient's intercept	3.55***	0.21	3.37***	0.19	0.59***	0.16	0.39***	0.11	2.77***	0.24
$\gamma_{00w}(\gamma_{00m})$	-	-	-	-	-	-	-	-	-	-
Sought support	0.09	0.08	0.31 ***	0.08	0.05	0.06	0.09	0.05	0.13	0.07
$\gamma_{10w}(\gamma_{10m})$	(0.41***)	(0.09)	(0.60***)	(0.10)	-	-	-	-	-	-
Mean sought support	0.66***	0.14	0.59***	0.13	0.13	0.10	0.11	0.07	0.55***	0.12
$\gamma_{01w}(\gamma_{01m})$	-	-	-	-	-	-	-	-	-	\

Note. Raw coefficients (γ) are shown above for female support recipients. Male recipients' coefficients are shown in parentheses where men's and women's coefficients differed significantly. $N = 40$ couples. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Pearson correlations between support variables, relationship satisfaction, and relationship outcome at 12 months

	RAS		Outcome	
	Women	Men	Women	Men
RAS			0.50 **	0.63 *
Received ES	0.20	0.22	0.35 *	-0.03
Received IS	0.34	0.31	0.24	0.12
Support adequacy	0.20	-0.12	-0.11	-0.15
Observed ES	0.30	-0.11	0.44 **	0.21
Observed IS	0.30	0.27	-0.16	0.12

Note. Relationship outcomes were *together* (1) versus *separated* (0). $N = 34$ couples.

* $p < .05$, ** $p < .01$.

Table 4

Results of hierarchical logistic regression analysis predicting relationship outcome at 12 months

	OR	95% CI	χ^2
Set 1: Relationship variables			12.89***
Couples' RAS	0.65	0.44 - 0.97	*
Set 2: Support variables			11.88**
Men's ES Received	0.44	0.20 - 0.99	*
Women's ES Observed	0.04	0.01 - 1.15	†

RAS = Relationship Assessment Scale. $N = 34$ couples.

† $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5

Main variables for daily diary study

	<i>M</i>	<i>SD</i>	% days present
<i>Daily intentions</i>			
Criticism	0.8	1.1	30%
Support	4.2	2.2	85%
<i>Daily behavior</i>			
Criticism	1.5	1.3	43%
Support	3.3	1.8	77%

Note: Means, standard deviations, and percent of days intentions/behaviors were present (i.e., score > 0) are reported across persons and days. $N = 79$.

Table 6

Summary of fixed effects for multilevel models predicting daily behavior

	Today's outcome							
	Criticism				Support			
	γ	<i>SE</i>	<i>t</i> ratio	<i>p</i>	γ	<i>SE</i>	<i>t</i> ratio	<i>p</i>
Intercept (γ_{00})	1.46	0.11	13.6	<.001	3.20	0.12	27.01	<.001
Yesterday's INT (γ_{10})	0.18	0.06	2.85	.005	0.25	0.05	5.15	<.001
Mean INT (γ_{01})	0.79	0.09	8.36	<.001	0.62	0.05	11.51	<.001
YRS (γ_{02})	0.07	0.11	0.64	.525	-0.33	0.12	-2.83	.006
Mean INT*YRS (γ_{03})	0.08	0.13	0.58	.565	-0.22	0.06	-3.81	<.001

Note: Variables were participants' years dating (YRS), mean intentions over the 2-week study (Mean INT), and deviation from the person's mean intentions (Yesterday's INT).

N = 79.

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

Table 7

Main variables for the interaction study

	<i>M</i>	<i>SD</i>	% of intervals present
<i>Self-reported intentions</i>			
Criticism	2.3	1.6	71%
Emotional support	3.7	1.4	74%
Informational support	3.7	1.6	75%
<i>Observed behavior</i>			
Criticism	0.7	0.5	65%
Emotional support	0.6	0.9	25%
Informational support	0.5	0.6	26%

Note: Descriptive data across persons and time are presented above, including the percent of interaction intervals in which “some” intentions or behavior (score > 0) were reported.

N = 50 couples.

Table 8

Summary of fixed effects for multilevel models predicting criticism and support in couple interactions

	Interaction Interval's Outcome											
	Criticism				Emotional support				Informational support			
	γ	<i>SE</i>	<i>t ratio</i>	<i>p</i>	γ	<i>SE</i>	<i>t ratio</i>	<i>p</i>	γ	<i>SE</i>	<i>t ratio</i>	<i>p</i>
Intercept (γ_{00})	0.66	0.05	12.85	<.001	0.54	0.10	5.23	<.001	0.56	0.07	8.56	<.001
Prior INT (γ_{10})	-0.01	0.02	-0.23	.820	0.01	0.04	0.18	.856	0.01	0.04	0.36	.718
Mean INT (γ_{01})	0.15	0.03	5.80	<.001	0.17	0.04	3.81	<.001	0.17	0.04	4.06	<.001
YRS (γ_{02})	0.06	0.05	1.10	.274	-0.01	0.10	-0.07	.946	-0.04	0.06	-0.72	.472
Mean INT*YRS (γ_{03})	-0.004	0.02	-0.19	.852	-0.06	0.04	-1.71	.090	-0.09	0.04	-2.50	.014

Note: Variables were participants' years dating (YRS), average intentions across interaction intervals (Mean INT), and deviations from the person's typical intentions in the preceding 2-min interval (Prior INT). $N = 50$ couples.

† $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$.

FIGURE CAPTIONS

Figure 1. Gender differences in perceived responsiveness to partners' support seeking

Figure 2. Relationship length moderates the intention-behavior relation for daily support.

Figure 3. Relationship length moderates the intention-behavior relation for observed support

Figure 1

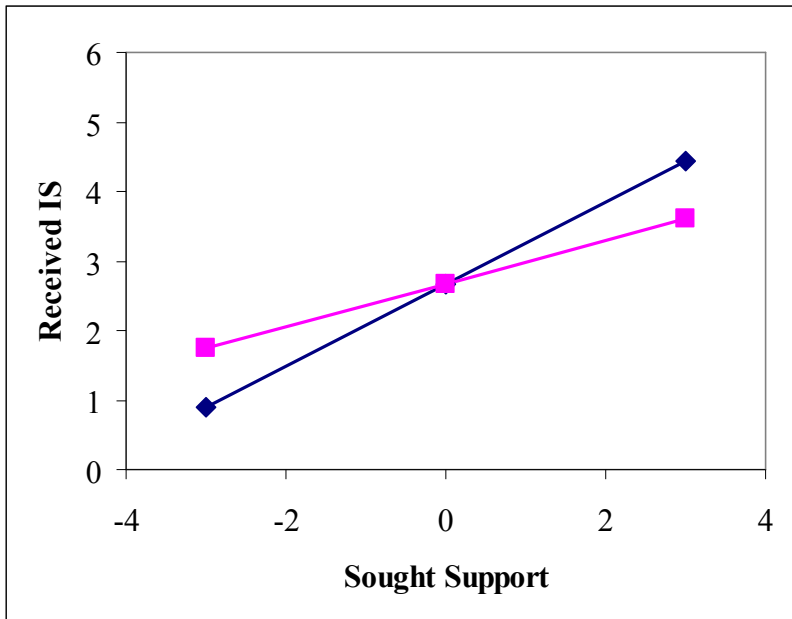
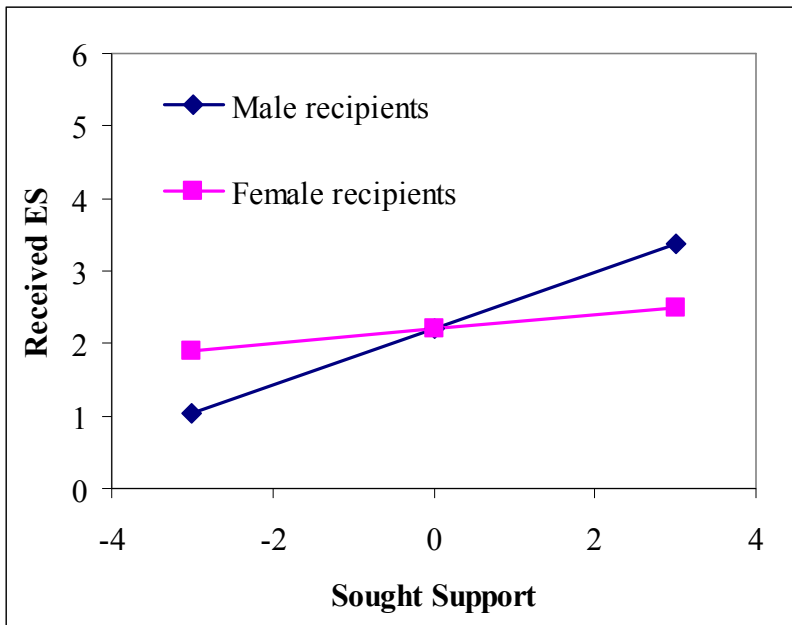


Figure 2

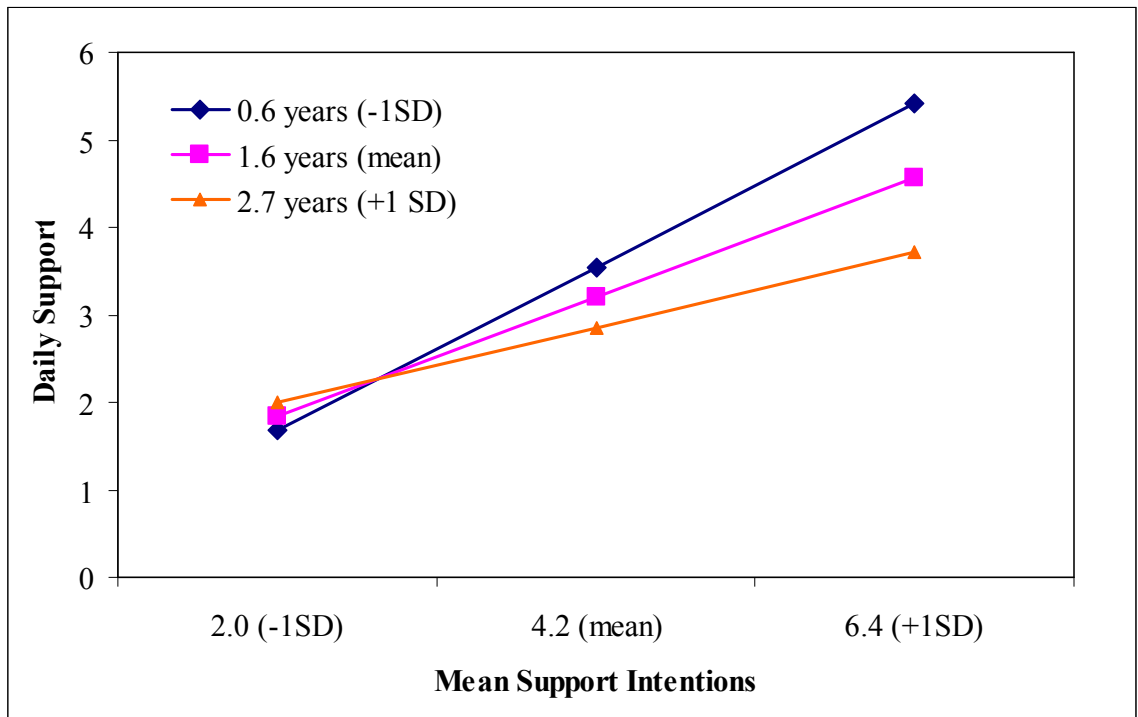


Figure 3

