

# Predicting Women's and Men's Reactions to Geographic Separation: Relational Interdependence Matters

ERIN E. CROCKETT  
TIMOTHY J. LOVING

*The University of Texas at Austin*

BENJAMIN LE  
MIRIAM S. KORN  
*Haverford College*

---

---

**ABSTRACT.** Participant sex and a theorized correlate of biological sex, relational interdependence, were tested as relative predictors of the extent to which daters 1) missed and 2) used emotional support to cope when geographically separated from their dating partners. One hundred twenty-four daters completed multiple measures of missing and coping during their colleges' winter breaks. Results from regression analyses indicated that levels of missing and seeking emotional support differed as a function of biological sex. Further, relational interdependence was reliably associated with missing and seeking emotional support in theoretically consistent ways. Mediation analyses highlighted the importance of considering relational interdependence or other individual differences that covary with biological sex when studying close relationship phenomena.

Keywords: coping, geographic separation, relational interdependence, sex differences

---

---

**MEN ARE FROM MARS, WOMEN ARE FROM VENUS** (Gray, 1992). This statement, rooted in the different cultures hypothesis, permeates popular opinion and directs empirical research (e.g., Wood, 1997). Despite the pervasiveness of

---

*Portions of this research were funded by a University of Texas research grant to the second author. The research reported in this manuscript was part of the first author's Master's thesis under the supervision of the second author. We would like to thank Ed Anderson, Ted Huston, and Cathy Surra for their helpful comments and suggestions. We also thank Aubri Paxson for her assistance collecting data and Traci Giuliano, Monique Pollmann, and Lisa Steffek for their comments on an earlier version of this manuscript.*

*Address correspondence to Erin E. Crockett, The University of Texas at Austin, Human Development and Family Sciences Program, 1 University Station, Box A2700, Austin, TX 78712, USA; crockete@mail.utexas.edu (e-mail).*

this man vs. woman dichotomy, the majority of researchers agree that there are far more similarities than differences between men and women; the differences that do exist, although statistically significant, are small in magnitude (Hyde, 2005). Unfortunately, because biological sex is easier to assess than other individual differences, whether participants self-select “female” or “male” on surveys is often used as the default construct for testing differences between men and women (yet, results are generally reported as “gender differences”). Consequently, researchers seldom measure correlates of biological sex (e.g., psychological gender) that may be more closely tied to behavior and ultimately underlie any observed sex differences (Vangelisti, 1997). The goal of the current study is to investigate the impact of relational interdependence, an individual difference that correlates with biological sex, on men’s and women’s reactions and coping during geographic separation.

### *What is Relational Interdependence?*

In Western culture, women’s sense of self is more strongly linked to their close relationships compared to men’s identity. This self-construal, likely a result of individuals’ communion motives (Wiggins, 1991), is referred to as *relational interdependence* (e.g., Cross & Madson, 1997; Markus & Kitayama, 1991). Women’s relational identity makes them more likely to identify with a specific individual, such as a best friend, where interactions are characterized by high levels of self-disclosure (Gabriel and Gardner, 1999). Further, relationally interdependent individuals (men or women) are more likely to consider their close friends and family members’ opinions in their decision making process (Cross, Bacon, & Morris, 2000).

Relational interdependence is a powerful regulator of affect, behavior, and cognition (Gabriel & Gardner, 1999). For example, relational interdependence, independent of biological sex, is associated with individuals’ views of their partners such that the relationally-interdependent view their partners more favorably than their partners view themselves (i.e., positive illusions; Gangé & Lydon, 2003). Differences in relational interdependence also predict the salience of emotional experiences; when asked to recall an important memory, the relationally-interdependent typically recall events that involve a specific other (e.g., a family member’s graduation; Gabriel & Gardner, 1999). Finally, relational interdependence affects individuals’ behavior. Relationally-interdependent individuals are more likely to engage in pro-relationship behaviors, including devaluing an attractive alternative partner (Lydon, 1999).

Although relational interdependence is associated with a number of behaviors that benefit relationships, this same self-construal may result in unpleasant experiences when individuals are confronted with relationship stressors. The closer one’s identity is linked to another individual, the more impactful disruptions are to the individual. For example, feeling dependent on others (a construct

closely related to relational interdependence) increases the physiological stress individuals experience during conflict (Laurent & Powers, 2006; Loving, Heffner, Kiecolt-Glaser, Glaser, & Malarkey, 2004). Thus, exploring the effect an individual's relational identity has on reactions to relationship stressors provides insight into the underlying mechanisms that may account for sex differences in close relationships (e.g., Kiecolt-Glaser & Newton, 2001).

### *Relationship Stress and Geographic Separation*

Although the study of biological sex and gender on reactions to relationship events has primarily focused on conflict, there is mounting evidence that substantively less "extreme" events also function as significant relationship stressors. In particular, geographic separation is a near universal stressor in romantic relationships. Whether the result of a short-term business trip or a long-term commuter marriage, most romantic relationship partners will be geographically separated from one another at some point in their relationships. This geographic separation results in the psychological experience of *missing* (Le et al., 2008), and available evidence clearly indicates these separations are distressing (Fraley & Shaver, 1998). In fact, couples who experience scheduled separations as short as 3–4 days suffer significant adverse psychological, behavioral, and physiological reactions such as increases in cortisol (Diamond, Hicks, & Otter-Henderson, 2008).

In their investigation of the psychological phenomenon of missing, Le and colleagues found that women are more likely than are men to miss their partners (Le et al., 2008). Women's increased likelihood of missing their partners may in part reflect women's greater propensity to adopt a relationally interdependent self-construal. In other words, to the extent that a person's identity is tied to an intimate partner, the interruption of the daily interactions that define close relationships should be particularly distressing (Berscheid, 1983). Thus, relational interdependence, as opposed to biological sex, per se, should predict individuals' responses to the stressor of geographic separation.

*Hypothesis 1a:* Women, compared to men, will miss their partners more during geographic separation.

*Hypothesis 1b:* Relational interdependence will be positively associated with missing.

*Hypothesis 1c:* Relational interdependence will mediate any association between biological sex and missing.

### *Coping With Geographic Separation*

Ultimately, the impact of any stressor is not based solely on the event itself; stress can be amplified or muted depending on the effectiveness of coping

strategies individuals utilize to manage the stressor (Cochrane, 1988; Lazarus & Folkman, 1987). Effective coping strategies should blunt the impact of a stressor whereas ineffective coping strategies should intensify the impact of the stressor. As such, understanding how individuals cope with specific situations can provide valuable insight into the long-term consequences of interpersonal relationships (Hennessy, 1997).

Just as men's and women's responses (i.e., missing) to geographic separation are sex-typed, women are also more likely than men to seek and use *emotional support* from their social networks when coping with relationship stressors (Ptacek, Smith, & Zanas, 1992; Tamres, Janicki, & Helgeson, 2002; Wohlgenuth & Betz, 1991)<sup>1</sup>. Although definitions of networks vary (Loving, Heffner, & Kiecolt-Glaser, 2006), the term social networks in the stress and coping literature generally refers to the set of individuals people believe they can rely on for support during stressful periods. When individuals seek emotional support, they disclose their distress with the intention of receiving validation or sympathy (Carver, Scheier, & Weintraub, 1989). For example, if something negative happens at work, individuals may tell their friends or spouse about the situation solely to vent and be comforted.

In their 2002 meta-analysis of gender differences in coping strategies, Tamres and colleagues divided stressors into four categories: achievement, relationships, personal health, and others' health. Sex differences in emotional support were most pronounced when participants encountered relationship-based stressors. Given the smaller effects in other stress contexts, we suggest that individual differences in how men and women approach relationships may underlie the sex difference in emotional support. Specifically, one of the defining features of relational interdependence is that relationally-interdependent individuals engage in more self-disclosure with specific others (Gardner & Gabriel, 1999). These one-on-one environments increase the likelihood of emotional support transactions. Thus, we hypothesize:

*Hypothesis 2a:* Women, compared to men, will seek emotional support more during geographic separation.

*Hypothesis 2b:* Relational interdependence will be positively associated with seeking emotional support.

*Hypothesis 2c:* Relational interdependence will mediate any association between biological sex and seeking emotional support.

## Method

### Overview

Four separate surveys were administered just before and during the 2006–2007 winter break at two study sites in the United States: a large state

university in the south (Site A), and a small, private liberal arts college in the northeast (Site B). An initial survey was administered prior to participants' separation to assess stable variables of interest: demographics, relationship histories, biological sex, and relational interdependence. An additional survey was administered on three different occasions while participants were separated from their partners; multiple assessments were used to provide a more reliable measure of each construct (Schmitt, 2006). Specifically, each break survey assessed participant's responses to the separation (i.e. how much they missed their partners) as well as how, and to what extent, participants coped (i.e., sought emotional support) with the geographic separation.

Procedures were similar at each study site with two exceptions. First, half of the participants from Site A completed the initial survey in the lab as part of a larger investigation (the details of which are not pertinent to the current analysis). For the remainder of the Site A sample and the entire Site B sample, the initial survey was administered online. Second, all participants from Site A completed the first break survey within the first few days of being separated from their partners (average number of days elapsed since separation = 2.27). The second, or middle, survey was completed at the half-way point of the separation (average number of days elapsed since separation = 9.26). The final survey was completed within 2 days of being reunited with their romantic partner (average number of days before reuniting with their partners = 1.85). In contrast, participants from Site B completed the first break survey five days after the start of winter break. The second break survey was completed half-way through the winter break (average number of days elapsed since first break survey = 11.37). The final survey was completed two days before the conclusion of winter break (at which point all participants from this site were to be reunited with their partners; average time elapsed since second break survey = 10.89 days). Because the timing of the surveys was slightly different across participants, we took a conservative approach and controlled for the number of days participants had been separated from their partners in all analyses.

### *Participants*

One hundred forty-three individuals (39 men, 104 women;  $n_{\text{Site A}} = 41$ ;  $n_{\text{Site B}} = 102$ ) involved in a dating relationship initially participated in the study. Individuals were recruited via internet advertisements and flyers posted at the respective campuses. A convenience sample of students was deemed appropriate for this specific investigation for two reasons. First, the scheduled winter breaks insured ample opportunity to assess coping while participants were separated from their partners. Second, individuals at this stage of adolescence are at an important developmental stage of life and still developing strategies for separation from romantic partners (Schulenberg, Sameroff, & Cicchetti, 2004).

Participants from each campus were recruited using similar inclusion criteria: individuals must have a) been involved in a dating relationship and b) planned to be separated from their partners at some point during winter break. The only differences in inclusion criteria were that Site A included long-distance daters ( $n = 20$ ) and had a minimum break separation requirement of two weeks. Because long-distance status affects reports of missing a partner (Le et al., 2008), we included long-distance status as a potential covariate in all analyses.

Of the 143 participants, 109 completed the first break survey, 99 completed the second break survey, and 101 completed the third break survey. Nineteen of the participants did not complete any of the break surveys. Once deleting those participants who did not complete any of the break surveys ( $n = 19$ ), the final sample included 124 participants (30 men, 94 women). A total of 75 participants completed all three surveys, 35 participants completed two of the three surveys, and 14 participants completed one survey.

The sample of 124 participants ranged in age from 17 to 25 years ( $M = 19.76$ ;  $SD = 1.39$ ). The majority of the sample self-identified as White (69.2%; 0.8 % Black or African American, 15.4 % Asian American, 5.4% Latino, and 9.2 % "other"). Of the 124 participants, 4% were "casually dating" and 95% were "seriously dating". No participants were married, but one participant was engaged. Participants' relationships ranged in length from 2 weeks to 5 years, with an average relationship duration of 10.33 months ( $SD = 11.01$  months).

### *Procedure*

*Initial survey.* For eligible participants at Site A ( $n = 24$ ), the first part of the study required individuals to come to the laboratory. The evening prior to their participation, participants were directed to a secure website to complete their first set of measures, including participant sex, relationship histories, and other variables not pertinent to the current analyses. Upon arrival to the laboratory, an experimenter provided participants with an overview of the study and collected informed consent. Participants were then asked to complete an additional questionnaire that assessed basic demographic information and relational interdependence. Following completion of the lab study, a research assistant ascertained the dates participants planned to be separated from their partners during the winter break. The dates of separation determined when participants completed the break surveys (see *Overview*).

For all other Site A participants who were not part of the lab study ( $n = 17$ ), as well as all Site B participants ( $n = 83$ ) the same information (i.e., relationship history, sex, relational interdependence, and background demographics) was collected via an online survey prior to participants' separations from their partners. In addition, individuals from Site A were asked to indicate the dates they would be separated from their partners. As noted above, the dates of the Site B survey administration were predetermined by the winter break schedule.

*Break surveys.* During winter break, participants from both locations were asked to complete three identical online surveys, including measures of missing, contact with their partners, and coping. Reminder emails were sent to all participants several days prior to the scheduled completion date for each break survey. Each survey took approximately 30 minutes to complete.

*Participant compensation.* Participants from Site A were compensated \$20 for completing the laboratory component of the study. Participants from Site B were compensated \$5 for completion of the initial survey. Upon their return from winter break, all participants reported to the lab to collect payment for their completed break surveys. Five dollars was given for each break survey completed with an additional \$5 bonus for completing all three surveys.

### *Materials*

*Relational interdependence.* To assess relational interdependence, participants completed Cross and colleagues' Relationship-Interdependent Self Construal Scale (RISCS;  $\alpha = .88$ ; Cross, Bacon, & Morris, 2000). The RISCS consists of 10 items that assess how important relationships are to individuals' identities, including how much pride individuals take in their relationships and the degree to which relationships contribute to individuals' senses of self worth (e.g., "My sense of pride comes from knowing who I have as close friends").

*Missing (break surveys).* In order to assess how much individuals missed their partners, the Missing during Interpersonal Separation Scale (MISS; Le et al., 2008) was administered at each break survey. The MISS is a prototype-based measure of missing a romantic partner consisting of 20 statements that are central to the experience of romantic missing (e.g., "I wanted to talk to my partner"). Participants responded to each item using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). The MISS demonstrated excellent internal reliability at each break assessment (break survey 1  $\alpha = .95$ ; break survey 2  $\alpha = .93$ ; break survey 3  $\alpha = .95$ ). The average correlation between missing measures across time was .71. Consistent with this high association, results from preliminary HLM analyses indicated that the majority of variance in missing was between participants, not within (between participant variance = 60.1%). Therefore, we collapsed across each measurement to create one global measure of missing across the three time points ( $M = 116.67$ ,  $SD = 22.86$ ).

*Contact with partner (break surveys).* To insure participants were separated from their partners at all three assessments, participants were asked how many days it had been since they had last seen their partners. A "0" indicated that partners were in proximity to one another at the time of the survey. Any surveys participants

completed while their partners were in town were dropped ( $n = 21$ ). Additionally, participants were asked whether or not they saw their partners during the time elapsed between surveys. Because whether participants had face-to-face contact with their partners between measurement occasion could reasonably alter their reports of missing and seeking emotional support, responses were dummy coded using 1 (*yes*) and 0 (*no*) and also included as a possible covariate in all analyses.

*Emotional support (break surveys).* To assess how, and how much, individuals sought emotional support the 4-item emotional support subscale of Carver et al.'s (1989) COPE scale was administered at each break survey (average  $\alpha = .92$ ; e.g., "I talk to someone about how I feel"). To insure we were assessing situational coping (Sigmon, Stanton, & Snyder, 1995), participants were asked to "indicate the extent to which you agree the following statements accurately describe how you are coping with being separated from your partner" on a 0 (*do not at all agree*) to 8 (*agree completely*) scale. By selecting '0' participants were able to indicate that they were not using emotional support. Again, the average correlation across measures of emotional support was high ( $r = .72$ ), and results from preliminary HLM analyses indicated that the majority of variance in emotional support was between participants, not within (between participant variance = 71.3%). Therefore, we collapsed across each measurement to create one global measure of emotional support across the three time points ( $M = 13.43$ ,  $SD = 8.70$ ).

## Results

### Primary Analysis

Descriptive characteristics and correlations between all study variables at all three measurement occasions are displayed in Table 1. As can be seen, within-construct correlations were significant across measurement occasion. Missing was also highly correlated with emotional support. It is worth noting that mean scores on emotional support fell around the midpoint of the response scale's range, suggesting that the geographic separation was moderately stressful for individuals (i.e., it did require coping). Relational interdependence was associated with missing and emotional support at two or more time points (a total of five out of six possible associations). Finally, and consistent with past work, biological sex was associated with relational interdependence, such that women were more relationally interdependent than were men ( $M_{men} = 45.59$ ,  $M_{women} = 50.91$ ,  $t(1,150) = 5.57$ ,  $p = .02$ ).

*Analytic technique.* The primary goal of the present study was to analyze how the between-subject variables of participant sex and interdependence type explained the within person outcome variables of missing and emotional support. As such,

**TABLE 1. Correlations Between Study Variables (*N* = 124)**

Variables	1	2	3	4	5	6	7	8
1. ES(1)	–							
2. ES(2)	.69**	–						
3. ES(3)	.70**	.76**	–					
4. M(1)	.41**	.26*	.51**	–				
5. M(2)	.17	.31**	.31**	.65**	–			
6. M(3)	.36**	.28**	.46**	.72**	.75**	–		
7. RI	.25**	.20	.30**	.31**	.25**	.54**	–	
8. Sex <sup>a</sup>	–.33**	–.11	–.23	–.28**	–.12	–.16	–.31**	–
<i>M</i>	13.36	14.54	14.00	115.90	121.50	119.22	49.40	40.43
<i>SD</i>	8.51	8.48	8.43	32.82	19.56	25.20	12.88	14.80
Range	0–32	0–32	0–32	38–160	81–160	49–160	11–76	0–77

Note. <sup>a</sup>Sex: 1 = Woman, 2 = Man; ES = Emotional support, M = Missing, RI = Relational interdependence.

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

the ideal analytic strategy would be to employ Hierarchical Linear Modeling (HLM; version 6) to account for the nonindependence of the data (i.e., the multiple assessments of missing and emotional support; Raudenbush & Bryk, 2002) and to subsequently employ mediation analyses appropriate for multilevel models (Bauer, Preacher, & Gil, 2006). As noted above, however, there was not sufficient variance in our Level-1 predictors to take advantage of these techniques (i.e., a constancy problem). Thus, to determine the impact of biological sex and relational interdependence on aggregated totals of missing and emotional support, we used ordinary least squares regression. We then followed the requirements for mediation outlined by Baron and Kenny (1986) to test our hypotheses. Specifically, mediation occurs when (1) variable A (i.e., biological sex) is associated with variable C (i.e., missing or emotional support), (2) the hypothesized mediator (i.e., relational interdependence), variable B, is significantly associated with C controlling for A, and (3) the association between A and C is reduced when B is added to the model.<sup>2</sup>

*Testing Hypothesis 1.* To test the first set of hypotheses concerning participants' experiences of missing during the separation, regressions for missing were run (see Table 2). As a conservative test, we first assessed for significance of several possible control variables (i.e., whether or not participants were separated for the entire break, days since participants last saw their partners, long-distance status, length of the relationship). Consistent with Le et al. (2008), long-distance status was a significant predictor of missing, and thus retained in subsequent regression models ( $\beta = .38, p < .001$ ). To test Hypothesis 1a, participant sex was next added to the regression model. Consistent with Hypothesis 1a, women were more

likely to miss their partners than were men ( $\beta = -.22, p = .02$ ). To determine whether relational interdependence was related to missing (Hypothesis 1b), relational interdependence was added to the model without biological sex. Consistent with Hypothesis 1b, relational interdependence was positively associated with increased missing ( $\beta = .39, p < .001$ ).

Because both sex and relational interdependence independently predicted missing, and sex was associated with relational interdependence (see Table 1), we followed Baron and Kenny's (1986) method for testing mediation (Hypothesis 1c). Specifically, we added relational interdependence and biological sex to the same regression model (see Table 2). Participant sex no longer significantly predicted missing ( $\beta = -.11, p = .22$ ), whereas relational interdependence remained significant ( $\beta = 0.35, p < .001$ ). Consistent with Hypothesis 1c, a Sobel test indicated that relational interdependence fully mediated the association between biological sex and missing ( $z = -2.44, p = .01$ ).

**TABLE 2. Regression Models Predicting Missing and Emotional Support**

	Missing		Emotional support	
	$\beta$	$R^2$	$\beta$	$R^2$
<i>Model 1: Control variables</i>				
Long-distance status/relationship length	.38**	.14	.21*	.04
<i>Model 2: Biological sex</i>				
Long-distance status/relationship length	.34**	.18	.20*	.12
Participant sex <sup>a</sup>	-.22*		-.28**	
<i>Model 3: Relational interdependence</i>				
Long-distance status/relationship length	.35**	.28	.20*	.12
RI	.39**		.28**	
<i>Model 4: Relational interdependence &amp; biological sex</i>				
Long-distance status/relationship length	.34**	.29	.19*	.13
Participant sex <sup>a</sup>	-.11		-.22*	
RI	.35**		.21*	

Note. <sup>a</sup>Participant sex: 1 = Woman, 2 = Man. RI = Relational interdependence.

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

*Testing Hypothesis 2.* To test the second set of hypotheses, regression models for emotional support were run (see Table 2). Again, the control variables were first added to the model; length of the relationship was significantly associated with seeking emotional support and retained in all subsequent regression models ( $\beta = .21, p = .03$ ). To test Hypothesis 2a, participant sex was entered as a predictor of emotional support. Consistent with Hypothesis 2a, women were more likely to seek emotional support than were men ( $\beta = -.28, p < .01$ ). Next, relational interdependence was added as a predictor of emotional support without biological sex. Consistent with Hypothesis 2b, individuals were more likely to seek emotional support to the extent that they were relationally interdependent ( $\beta = .28, p < .01$ ).

Because both sex and relational interdependence independently predicted seeking emotional support, and sex was associated with relational interdependence (see Table 1), we followed Baron and Kenny's (1986) suggestions for testing mediation (Hypothesis 2c). Specifically, we added relational interdependence to the regression model including biological sex (see Table 2). Although the association between participant sex and seeking emotional support was reduced, both participant sex ( $\beta = -.22, p = .02$ ) and relational interdependence ( $\beta = .21, p = .03$ ) continued to significantly predict seeking emotional support. Thus, given the reduction in strength of the association between participant sex and seeking emotional support, we conducted a Sobel test which indicated that relational interdependence partially mediated, albeit marginally, the effect of biological sex on seeking emotional support ( $z = -1.82, p = .07$ ).

### *Secondary Analysis*

To test whether the study site and procedures may have impacted any of the results, comparative analyses were run using location (i.e., study site) as a control. Because very few men in our sample came from Site A, we would have been unable to test for sex differences in emotional support if study site were included as a variable in the primary analyses. The pattern of results for relational interdependence remained the same after controlling for location, suggesting any differences in the two samples used for these analyses had no systematic effect on the results.

## **Discussion**

We investigated whether a correlate of biological sex, relational interdependence, mediated men's and women's sex-typed reactions during a brief geographic separation. A sample of college students completed three assessments of missing and seeking emotional support while separated from their dating partners. We hypothesized that any association between biological sex and each of

these reactions would be mediated by relational interdependence. The results from the current study support these hypotheses.

Consistent with extant work (Le et al., 2008), women reported missing their romantic partners more than did men. Further, individuals high in relational interdependence were more likely to miss their partners than were individuals low in relational interdependence. Considering the importance of relationships to relationally-interdependent individuals (Gabriel & Gardner, 1999), this finding is not surprising. To the extent that close relationships are an important part of individuals' self-schemas, the absence of their partners would be more challenging and threatening, significantly impacting their normal daily routines (Berscheid, 1983). Importantly, relational interdependence fully mediated the link between biological sex and missing, suggesting that the reason women are more likely to miss their partners than are men is because of their relational self-construals.

We also expected the use of emotional support to be positively associated with relational interdependence. Results were again consistent with this hypothesis. Individuals who defined their identity to a greater extent by their close relationships with a specific other were more likely to seek emotional support. Given the role of self-disclosure in the development and maintenance of one-on-one relationships (Aron, Milenat, Aron, & Vallone, 1997), we suspect a more relationally-interdependent orientation is both a predictor and an outcome of emotional support seeking. Further, it is possible that a preference for, or orientation towards, one-on-one relationships creates an environment more conducive to discussing personal matters. In light of the connection between seeking emotional social support and mental and physical health outcomes (e.g., depression, immune function; Penninx et al., 1998; Levy, Herberman, Whiteside, & Sanzo, 1990), our results suggest it may be possible to identify those individuals most at risk for adverse long-term health outcomes (i.e., the less relationally-interdependent).

Emotional support was also predicted by biological sex, such that women in our study were more likely than men to seek emotional support in response to geographic separation (it should be noted, however, that men also sought emotional support). This sex difference was not significantly mediated by relational interdependence, although we did find some evidence of partial mediation. We are hesitant to draw firm conclusions about this effect given its marginal significance, but our results suggest that relational interdependence may provide some insight into why women seek emotional support more than do men.

Further, numerous other unmeasured individual differences that covary with sex could account for the obtained sex difference in seeking emotional support. For example, men face normative pressures to not seek emotional support (Burlson, Holmstrom, & Gilstrap, 2005) and women display a greater tendency to express emotions than do men (Burlson & Gilstrap, 2002). Each of these outcomes of socialization pressures no doubt contribute to sex differences in seeking emotional support and are third variables deserving of further scrutiny.

Differences in seeking emotional support could also be based in biological differences between men and women, such that differences in the male and female hormone response systems may promote greater support seeking in women relative to men (Taylor et al., 2000). Ultimately, given growing evidence of the bidirectional association between physiological and social processes, we suspect both biological and psychological factors contribute to emotional support seeking. Thus, it is likely that psychological variables that covary with biological sex will not fully account for the link between biological sex and emotional support.

### *Strengths and Limitations*

One notable strength of the current study is the context in which geographic separation occurred. Participants in the sample were college students separated from their partners over winter break. During that time, partners were going to their hometowns, where they would both have access to familiar emotional support providers in the absence of their partners (e.g., family members or friends). Also unique to this late adolescent sample is that individuals during this time of life are forming attitudes and an understanding of others that affect how they view and behave in later romantic relationships (e.g., Nieder & Seiffge-Krenke, 2001). These experiences set the tone for how individuals approach the future, making the skills individuals develop as adolescents a particularly important line of inquiry (Schulenberg et al., 2004). Thus, our convenience sample of college students is in many ways an ideal group to study when looking at how individuals learn to manage relationship stressors. Caution should be taken, however, in terms of generalizing the findings to a larger population.

Despite the strengths of the study, two caveats are worth noting. First, all participants in the sample knew they would see their partners again at the end of winter break. Individuals are likely to have different experiences when they are separated for longer periods of time or when the separation is less predictable. For example, in situations where reunification is less certain, such as military deployments, individuals' coping strategies while geographically separated could be altered. Despite the possibility that coping strategies may differ depending on context, it is unlikely that the association between biological sex and missing or emotional support or relational interdependence and missing or emotional support would be drastically altered, but this remains an empirical question ripe for study. Second, consistent with many studies employing samples of undergraduates involved in close relationships, we had a difficult time recruiting men into our study. As a result, our sample consisted of a disproportionate number of women. That said, our results are generally consistent with past work that has utilized much larger samples, suggesting that we had a sufficient number of men to reliably estimate levels of missing, emotional support, and relational interdependence for our analyses.

### *Theoretical Implications*

Our findings provide additional empirical support for the significant role relational interdependence plays in relationship outcomes and offer further evidence of the need for relationship researchers to broaden their assessments of individual differences that may covary with biological sex. Using biological sex as the default construct for explaining differences between men and women is limiting. Emphasizing biological sex perpetuates a “different cultures” mentality that exaggerates the differences between men and women; it is now clear that there are more differences within men and women than between them (e.g., Burleson, 1997). As long as researchers build models around sex as opposed to individual differences that correlate with biological sex, these stereotypes will continue to be perpetuated and our knowledge of *why* there might be differences will remain inadequate (Vangelisti, 1997). Assuming that differences between men and women are solely the result of biological sex limits future research (Vangelisti, 1997).

Overall, the current findings provide evidence for the significant role relational interdependence, independent of participant sex, might play in men’s and women’s day-to-day relationship experiences. To our knowledge, this is the first study to explore how a correlate of biological sex (i.e., relational interdependence) impacts missing and seeking emotional support during a relationship-based stressor. These findings highlight the importance of considering individual differences that covary with biological sex when studying close relationships phenomena.

### NOTES

1. Differences between men and women in the use of emotional support are small, and men and women value emotional support equally in their close relationships (Burleson, 1997); however, the effect size for sex differences in seeking emotional support are larger than for any other coping strategy (Burleson, 2003; Tamres et al., 2002).

2. Analyses were also conducted in HLM and the pattern of results remained the same; biological sex and relational interdependence both predicted missing and emotional support. Further, mediation analyses employing a Sobel test with the HLM coefficients also revealed the same mediation pattern found with the OLS approach.

### AUTHOR NOTES

**Eric E. Crockett** received her PhD in human development and family sciences from The University of Texas at Austin in 2010 and is currently a Visiting Assistant Professor in the Psychology Department at Southwestern University. **Timothy J. Loving** received his PhD in social psychology from Purdue University in 2001 and is currently an Associate Professor at The University of Texas at Austin’s Department of Human Development and Family Sciences. **Benjamin Le** received his PhD in social psychology from Purdue University in 2003 and is currently an Associate Professor at Haverford College

in the Department of Psychology. **Miriam S. Korn** received her BA in psychology from Haverford College and is currently an Advanced Doctoral Student of clinical psychology at The George Washington University.

## REFERENCES

- Aron, A., Melinat, E., Aron, E. N., & Vallone, R. D. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, *23*, 363–377.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, *11*, 142–163.
- Berscheid, E. (1983). Emotion. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E., et al. (Eds.), *Close relationships* (pp. 110–168). New York, NY: Freeman.
- Burleson, B. R. (1997). Second response: A different voice on different cultures: Illusion and reality in the study of sex differences in personal relationships. *Personal Relationships*, *4*, 229–241.
- Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion and interpersonal communication. *Personal Relationships*, *10*, 1–23.
- Burleson, B. R., & Gilstrap, C. M. (2002). Explaining sex differences in interaction goals in support situations: Some mediating effects of expressivity and instrumentality. *Communication Reports*, *15*, 43–55.
- Burleson, B. R., Holmstrom, A. J., & Gilstrap, C. M. (2005). “Guys can’t say that to guys”: Four experiments assessing the normative motivation account for deficiencies in the emotional support provided by men. *Communication Monographs*, *72*, 468–501.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267–283.
- Cochrane, R. (1988). Marriage, separation and divorce. In S. Fisher & J. Reason (Eds.), *Handbook of life stress, cognition and health* (pp. 137–160). Oxford, UK: John Wiley & Sons.
- Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology*, *78*, 791–808.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, *122*, 5–37.
- Diamond, L. M., Hicks, A. M., & Otter-Henderson, K. D. (2008). Every time you go away: Changes in affect, behavior, and physiology associated with travel-related separations from romantic partners. *Journal of Personality and Social Psychology*, *95*, 385–403.
- Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. *Journal of Personality and Social Psychology*, *75*, 1198–1212.
- Gabriel, S., & Gardner, W. L. (1999). Are there “his” and “hers” types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, *77*, 642–655.

- Gangé, F. M., & Lydon, J. E. (2003). Identification and the commitment shift: Accounting for gender differences in relationship illusions. *Society for Personality and Social Psychology*, 29, 907–919.
- Gray, J. (1992). *Men are from Mars, women are from Venus: A practical guide for improving communication and getting what you want in your relationships*. New York, NY: Harper Collins.
- Hennessy, M. B. (1997). Hypothalamic-pituitary-adrenal responses to brief social separation. *Neuroscience & Biobehavioral Reviews*, 21, 11–29.
- Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist*, 60, 581–592.
- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, 127, 472–503.
- Laurent, H. K., & Powers, S. I. Social-cognitive predictors of hypothalamic-pituitary-adrenal reactivity to interpersonal conflict in emerging adult couples. *Journal of Social and Personal Relationships*, 23, 703–720.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1, 141–169.
- Le, B., Loving, T. J., Lewandowski, G. W., Feinberg, E. G., Johnson, K. C., Fiorentino, R., & Ing, J. (2008). Missing a romantic partner: A prototype analysis. *Personal Relationships*, 15, 511–532.
- Levy, S. M., Herberman, R. B., Whiteside, T., & Sanzo, K. (1990). Perceived social support and tumor estrogen/progesterone receptor status as predictors of natural killer cell activity in breast cancer patients. *Psychosomatic Medicine*, 52(1), 73–85.
- Loving, T. J., Heffner, K. L., & Kiecolt-Glaser, J. K. (2006). I've got you under my skin: physiology and interpersonal relationships. In A. Vangelisti & D. Perlman (Eds.), *Cambridge handbook of personal relationships* (pp. 385–405). New York, NY: Cambridge University Press.
- Loving, T. J., Heffner, K. L., Kiecolt-Glaser, J. K., Glaser, R., & Malarkey, W. B. (2004). Stress hormone changes and marital conflict: Spouses' relative power makes a difference. *Journal of Marriage and Family*, 66, 594–611.
- Lydon, J. E. (1999). Commitment and adversity: A reciprocal relation. In W. H. Jones & J. M. Adams (Eds.), *Handbook of interpersonal commitment and relationship stability* (pp. 193–203). New York, NY: Plenum Press.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Nieder, T., & Seiffge-Krenke, I. (2001). Coping with stress in different phases of romantic development. *Journal of Adolescence*, 24, 297–311.
- Penninx, B. W. J. H., van Tilburg, T., Boeke, A. J. P., Deeg, D. J. H., Kriegsman, D. M. W., & van Eijk, J. T. M. (1998). Effects of social support and personal coping resources on depressive symptoms: Different for various chronic diseases? *Health Psychology*, 17, 551–558.
- Ptacek, J. T., Smith, R. E., & Zanas, J. (1992). Gender, appraisal, and coping: A longitudinal analysis. *Journal of Personality*, 60, 747–770.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Schmitt, M. (2006). Conceptual, theoretical, and historical foundations of multimethod assessment. In M. Eid & E. Diener (Eds.), *Handbook of multimethod measurement in psychology* (pp. 9–25). Washington, DC: American Psychological Association.
- Schulenberg, J. E., Sameroff, A. J., & Cicchetti, D. (2004). The transition to adulthood as a critical juncture in the course of psychopathology and mental health. *Development and Psychopathology*, 16, 799–806.

- Sigmon, S. T., Stanton, A. L., & Snyder, C. R. (1995). Gender differences in coping: A further test of socialization and role constraint theories. *Sex Roles, 33*, 565–587.
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review, 6*, 2–30.
- Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A. R., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review, 107*, 411–429.
- Vangelisti, A. L. (1997). Gender differences, similarities, and interdependencies: Some problems with the different cultures perspective. *Personal Relationships, 4*, 243–253.
- Wiggins, J. S. (1991). Agency and communion as conceptual coordinates for the understanding and measurement of interpersonal behavior. In D. Cicchetti & W. Grove (Eds.), *Thinking clearly in psychology: Essays in honor of Paul Everett Meehl* (pp. 89–113). Minneapolis, MN: University of Minnesota Press.
- Wohlgemuth, E., & Betz, N. E. (1991). Gender as a moderator of the relationships of stress and social support to physical health in college students. *Journal of Counseling Psychology, 38*, 367–374.
- Wood, J. T. (1997). Different views of different cultures: Clarifying the issues. *Personal Relationships, 4*, 221–228.

*Received October 21, 2009*

*Accepted August 19, 2010*