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Receiving Support as a Mixed Blessing: Evidence for Dual Effects of Support on Psychological Outcomes

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Abstract

Although social support is thought to boost feelings of closeness in dyadic relationships, recent findings have suggested that support receipt can increase distress in recipients. The authors investigated these apparently contrary findings in a large daily diary study of couples over 31 days leading up to a major stressor. Results confirm that daily support receipt was associated with greater feelings of closeness and greater negative mood. These average effects, however, masked substantial heterogeneity. In particular, those recipients showing greater benefits on closeness tended to show lesser cost on negative mood, and vice versa. Self-esteem was examined as a possible moderator of support effects, but its role was evident in only a subset of recipients. These results imply that models of dyadic support processes must accord a central role to between-individual heterogeneity.

Keywords

close relationships; daily diaries; social support; reciprocity; multilevel models

Perceived availability of social support (the belief that social support has been available to one in the past and will be in the future) has been linked to a variety of beneficial outcomes (Sara-son, Sarason, & Pierce, 1994). However, the beneficial effects of perceived support stand in contrast to those for concrete acts of support (Lakey & Lutz, 1996). Although a few studies have shown that support receipt is related to some positive outcomes (Feeney & Collins, 2001, 2003), many studies of actual support transactions find that support receipt is associated with negative outcomes and in particular with increased negative mood (Barrera, 1981; Bolger, Zuckerman, & Kessler, 2000; Liang, Krause, & Bennett, 2001; Shrout, Herman, & Bolger, 2006).

Studies of support transactions also have a tendency to focus on individual emotions and well-being and are less likely to measure relationship-level variables such as closeness and felt intimacy. Given that negative affect is inversely associated with relationship satisfaction

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(Bradbury & Fincham, 1989; Edwards, Nazroo, & Brown, 1998; Gottman, 1979; Uebelacker, Courtnage, & Whis-man, 2003) and feelings of closeness and intimacy within relation- ships are positively associated with relationship satisfaction (Reis & Patrick, 1996; Sanderson & Cantor, 1997), it would seem that instances of support receipt could lead to lowered relationship closeness as a secondary outcome.

We review the strength of the evidence that support receipt has adverse effects on individual well-being, then review the possible effects of support receipt on relationship closeness and intimacy, and finally outline the strengths of considering both negative mood and relationship closeness outcomes in a single study of social support receipt.

How Strong Is the Evidence That Support Receipt Can Lead to Increased Distress?

As discussed above, there is an established literature linking generalized perceived support to better outcomes, including reduced distress (e.g., Cohen, 2004), but daily support receipt is frequently linked to negative outcomes. Given the seemingly contradictory nature of these findings, the association between daily support and negative mood has been questioned. Specifically, it has been suggested that the apparent negative effects of support receipt could be due to (a) reverse causation, that is, distress leading to support provision, or (b) a common third cause, such as stress leading to both distress and support, which would create a spurious association

Two kinds of evidence argue against reverse causation. One is the use of lagged variables so that the association of distress on one day is related to support on the previous day (e.g. Bolger et al., 2000; Shrout et al., 2006). In these lagged models, yesterday's negative mood is adjusted for statistically such that the adverse effects of yesterday's support on today's mood cannot be due to simple build-up of negative mood. Bolger et al. (2000; and also Shrout et al., 2006, in a somewhat more elaborate model) found that the negative effects of yesterday's support remain after adjustment. The second source of evidence is from an examination of simulated data that were constructed to conform to a pattern in which distress elicits support (Seidman, Shrout, & Bolger, 2006). Seidman et al. (2006) constructed the fictitious data using a simulation strategy that was first outlined by Abelson (1968) and then analyzed this reverse causation data with Bolger et al.'s analytic approach. They concluded that the effects obtained empirically by Bolger et al. could not have been obtained with data that were constructed under the reverse causation model.

The other alternative model is that of a third variable that leads to both distress and support provision—a spurious association model. An example of this alternative model is the support-seeking–triage model, which posits that the negative outcomes from receiving support are due not to the support itself, but instead to support and psychological distress being simultaneously caused by a precipitating stressful event (Barrera, 1986). According to this model, it is not receiving support that causes distress, but the stressor that simultaneously evokes both psychological distress and increased support from others. Support and negative mood coincide because both are responses to negative events, not because they are causally linked to negative mood.

However, the association between support and negative outcomes typically remains even after adjustment for relevant third variables. Krause (1997), in a nationwide study of 60-year-olds in Great Britain, found that even when adjusting for health status, individuals who received support had an increased mortality risk, and those who had high perceived availability of support had decreased mortality risk. Experimental studies have also demonstrated that support receipt and not just the precipitating stressor can have deleterious

effects on mood. Bolger and Amarel (2007) found that students asked to give an impromptu speech were more anxious when they received explicit, visible support from a confederate than were students who did not receive support. Furthermore, the Seidman et al. (2006) simulation study discussed above also investigated the third-variable explanation. They created fictitious data in which the level of distress today was caused by yesterday's distress, as well as adversity experienced today and yesterday. Similarly, the support transactions today were modeled to be more likely when support was provided yesterday and when adversity was experienced either today or yesterday. Unlike the results of the reverse causation simulation study, Seidman et al. found that when Bolger et al.'s (2000) analysis strategy was used, some spurious association was created by the omitted third variable (adversity). However, the size of the bias was very small, even when the magnitude of the effect of adversity was made to be unrealistically large. Seidman et al. concluded that Bolger et al.'s effect sizes were unlikely to be due to an omitted third variable. Taken together, these findings suggest that the association between psychological distress and support receipt is not spurious.

Support Receipt and Increased Distress

Equity theory and reciprocity research have also been invoked to explain why the receipt of support can be negative (Uehara, 1995; Walster, Berscheid, & Walster, 1973). Both approaches suggest that people will be most satisfied when they perceive their supportive relationships as being equitable or reciprocal. Equity and reciprocity theories posit that both overbenefit (receiving more support than one has provided) and underbenefit (providing more support than one has received) are psychologically distressing and that individuals are motivated to restore equity either behaviorally by providing or eliciting aid from caregivers or cognitively by psychologically justifying the inequity (Buunk & Schaufeli, 1999; Uehara, 1995; Walster et al., 1973). Buunk and Schaufeli (1999) took an evolutionary approach to reciprocity, suggesting that it is a basic psychological mechanism that developed to maintain social relationships and indicate individuals' importance in their social groups. Research on couples in which one member is seriously ill has shown that both the ill spouse and the caregiving spouse suffer from frustration, anger, depression, and resentment when the relationship is not judged to be reciprocal (Thompson, Medvene, & Freedman, 1995).

From the perspective of reciprocity theory, Uehara (1995) specifically argued that it is being overbenefited—receiving support without returning it—that is particularly psychologically distressing. In this case, recipients are likely to feel obligated to repay what was given to them, and when they cannot, they begin to doubt their status and usefulness in the relationship (see also Roberto & Scott, 1986). In a daily diary study of committed couples, we found that individuals reported increased negative affect and decreased positive affect on days on which they reported receiving support from, but not providing support to, their partners (over-benefit) as compared with days when they only provided support to their partners (underbenefit) or both provided support to and received support from their partner (equitable or reciprocal exchanges; Gleason, Iida, Bolger, & Shrout, 2003).

A different explanation for a tendency for distress to increase with received support is one that focuses on possible effects of support on the recipient's self-esteem. Several studies have reported that being helped is associated with decreased self-esteem and depressed mood in the recipient (Nadler, 1987; Nadler & Fisher, 1976). There is some evidence that this explanation is especially relevant in close relationships (Nadler, Fisher, & Itzhak, 1983). Fisher, Nadler, and Whitcher-Alagna (1982) proposed the threat-to-self-esteem model of aid or support receipt that posits that helping consists of both self-threatening and supportive components. The self-threatening components can undermine the recipients' evaluation of their self-efficacy, competence, and coping abilities, which can in turn lead to increased

psychological distress. On the other hand, Fisher et al. theorized that the supportive components could provide comfort and a sense of being cared for by the support provider.

Social Support as Relationship Enhancer

It is perhaps this potential sense of being cared for by one's partner bolstered by the positivity of the perceived availability of support that gives social support its positive reputation. Reis, Clark, and Holmes (2004) and Cutrona (1996) have related the positive findings associated with perceived availability of social support to a global construct called *perceived responsiveness of the partner to the self*. This perception of partner responsiveness is the central path to the development and maintenance of closeness and intimacy in relationships. Like perceived responsiveness to the self, perceived availability of support seems to be based on both personality characteristics of the perceiver and actual supportive interactions. People who judge themselves as being highly sup- ported are also judged by observers as being more supported, but support recipients who perceived their relationships as more positive also judge the support they receive more positively than observers (Collins & Feeney, 2000).

Given the research indicating that support receipt increases negative mood, it is surprising that it is judged as positive by the recipient at all. One possible explanation for this contradiction is that support receipt makes one feel closer to the provider of that support because it makes one feel cared for or responded to (Reis et al., 2004) even while increasing personal distress. Gable, Gonzago, and Strachman (2006) found that when individuals were supportive when talking with their partners about their partner's successes, the partners (i.e., the support recipients) rated the relationship as more satisfying. Although a positive association between receipt of support and positive relationship variables such as satisfaction, closeness, and intimacy has been found in a few studies (Acitelli & Antonucci, 1994; Hagedoorn et al., 2000), it is unclear whether the support being assessed was actual support received, perceived support, or some combination of both. Regardless, this research on support receipt and relationship variables raises the question of whether support has differential effects on individual-level variables (e.g., personal distress) when compared with relationship-level variables (e.g., relationship closeness).

Understanding Dual Effects of Support on Personal Distress and Relationship Closeness

The idea that support or aid can produce both increased psychological distress and a sense of being cared for by the provider is particularly intriguing. There are at least two possible models of this pattern of effects: an individual differences model and a within-person differential effects model. An individual differences model would mean that support increases personal distress for some people but increases relationship closeness for others. A differential effects model would mean that support receipt leads to both increased personal distress and increased relationship closeness in the same person. Model 1 in Figure 1 shows a representation of an individual differences model of support receipt. In one group (Group A), there is no effect of support on individual distress, but there is a strong and positive effect on relationship closeness. In the other group (Group B), there may be a strong effect of support on individual distress, but no improvement in relationship closeness. If data from these two groups are combined without a formal model of the nature of the moderation (individual differences), then one might conclude from the mixed analysis that couples are likely to experience both relationship exhilaration and individual distress.

An individual differences model of the effects of support receipt is consistent with aspects of the relationship enhancement model of social support (Cutrona, Russell, & Gardner, 2005).

This model explains the association between actual support receipt, perceived availability of support, relationship satisfaction, and health. It suggests that the perceived availability of support is directly related to instances of received support, particularly when the provider is seen as a caring and committed partner, and that this process is cyclical: People who receive consistent beneficial support will trust their partners, and people who trust their partners will benefit from support. Perhaps the negative effects of the receipt of support can be explained by individual differences:

Specifically, people who trust their partners may benefit from support (Group A in Figure 1), whereas people who lack that trust may experience costs that have been described above (Group B in Figure 1).

In contrast to the individual differences model, Model 2 in Figure 1 represents a differential effects model, whereby a single support event leads to improved relationship closeness and increased individual distress. We might imagine a stressed worker who comes home to a well-intending partner who attempts to provide him or her with a break. The worker might appreciate the good intentions and feel closer to his or her partner but be distressed by the loss of an evening of productivity. If this were the typical pattern of support provision in the couple, then one would witness simultaneous positive and negative effects of support acts.

Although the individual differences model and the differential effects model appear to be discrete alternatives, they can actually be viewed as examples of a range of processes that might vary from couple to couple. For some pairs of partners, support events could lead to closeness but not to distress; for other partners, support events could lead to distress but no closeness; and for still others, there could be dual effects. In the population, some patterns of these relations might be more common than others.

Only three studies that we know of have reported on these two processes in the same samples of partners. The Bolger and Amarel (2007) study cited earlier did find evidence for mixed effects of support receipt. Students who received visible support experienced larger increases in negative emotion than those in the nonsupport condition, and they also felt that their partners were more concerned, considerate, and supportive than those in the invisible support condition. However, this study had only a single support event and was not designed to examine individual differences in response to support events. Gable, Reis, and Downey (2003) were able to study repeated support events among dating couples. They found that support events that were reported by both partners and recipients (called “hits”) were related to both relationship well-being and recipient distress. Even though the data were based on diary reports that allow the study of individual differences, the authors did not include these individual differences (which are called *random effects* in the multilevel statistics literature) in their statistical model.

Gleason, Iida, Bolger, and Shrout (2003) examined the effect of imbalance in support provision and receipt on recipients' negative mood, and Gleason (2005) analyzed data from the same daily diary study with a focus on relationship closeness outcomes. In both of these analyses (i.e., for both outcomes), Gleason and her colleagues found evidence that the effects of unreciprocated support events varied from couple to couple, but on average unreciprocated support was associated with an increase in negative mood and in a separate analysis with an increase in relationship closeness. However, it was not possible to determine from these two analyses how often the pattern in Model 2 (differential effects model) occurred in the sample.

The Current Study

To tease apart the effects of support receipt on negative mood and relationship closeness, we analyzed data from a large daily diary study of nearly 300 cohabitating couples in which one partner was approaching a stressful event, the bar examination (a difficult-to-pass licensing examination for lawyers that they must pass to practice). Using a dataset in which one member of the couple is approaching a significant stressor allowed us to investigate whether responses to support receipt are affected by overall stress level and ensured that we captured couples at a time when support exchanges should have occurred frequently.

A typical analysis would involve estimating and interpreting only the fixed or average effects. Although the fixed effects give valuable information about the predominant pattern of the data, fixed effects alone are unable to distinguish between models like those discussed above. Estimating the random effects of the receipt of support on negative mood and relationship closeness will provide evidence as to whether the effects of receipt of support on the outcomes differ between individuals. If receipt of support increased negative mood on average (a significant fixed effect) and there was significant variation around it (a significant random effect), we would know that individuals' negative mood was differentially affected by receipt of support. Furthermore, we could obtain estimates of each individual's receipt of support effect, which would reveal whether for some people receipt of support decreased negative mood despite the average effect being an increase in negative mood or whether receipt of support increased negative mood in all individuals but to lesser and greater degrees.

In the current study, we took such an analysis one step further and built a model in which we simultaneously modeled the effects of support receipt on negative mood and relationship closeness. This special multilevel model is what Raudenbush and Bryk (2002, pp. 185–199) called a multivariate repeated measures model. The model and the large sample size allowed us to estimate the random effects of support receipt on both negative mood and closeness and then estimate the correlation between them. A significant correlation between the random effects of support receipt on negative mood and relationship closeness would suggest that the effects are systematically linked across individuals, whereas a null correlation would suggest that the association between the effects of support receipt on negative mood and relationship closeness vary by individual but are not linked. This analysis is particularly powerful for two reasons: (a) It allowed us to model the effects of receipt of support on negative mood and closeness simultaneously, thereby allowing us to investigate how these effects are associated within individuals, and (b) it allowed us to see whether and how people systematically differ in their reactions to support receipt without having to identify an explanatory moderator.

This second strength is particularly important. Conceptually, we tend to think about the heterogeneity of the responses to support events as possible moderation, as illustrated in Model 1 of Figure 1, but, as stated above, in practice the multilevel models do not require that we specify the variables that distinguish Group A from Group B. Given the difficulty of measuring all possible moderators and the fact that moderation is often difficult to find, it is particularly useful that we can identify systematic variation without having to identify its specific source.

In the current study, we first determined the average response to support receipt, then whether there was reliable variation in those responses; as a third step, we attempted to identify the variables that can account for such variation. The literature suggests two important candidates for moderating variables that we could examine. One is derived from the Cutrona et al. (2005) theory that suggests that support receivers who are in more trusting

and satisfying relationships will find support to be more effective in reducing personal distress. Another is the proposition by Fisher et al. (1982) that support can be a threat to self-esteem—persons who have compromised self-esteem might be more vulnerable to a threat associated with support acts.

Method

Design and Participants

The data were collected in the summers of 2001, 2002, and 2003 by contacting more than 100 law schools in the continental United States. In 2001, 14 schools agreed to participate by allowing their graduating students to be contacted; in 2002, 27 schools participated; and in 2003, 30 schools participated. Because access to students' marital or cohabitation status was unavailable before recruitment, the school representatives were asked to distribute either a letter or an e-mail to their entire graduating class. Across the 3 years, more than 15,000 students were contacted. To be eligible for participation, couples had to be married or cohabiting for at least 6 months at the time of the recruitment, and only 1 member of the couple could be planning on taking the July bar exam. There were 765 eligible couples who contacted us to participate, and of those 552 were assigned to the diary condition.[1] Of those, 472 couples agreed to participate, resulting in an 86% agreement rate.

The average age of the examinee was 28.9 years *(SD* = 6.4), and the average age of the partner was 28.4 *(SD* = 7.8). Of the examinees, 46% were male. Sixty-four percent of the participants were married, and the average length of cohabitation was 4.2 years *(SD* = 4.9). The composition of the sample was 76.8% White, 7.1% Asian, 4.4% Latino, 2.1% Black, 0.6% American Indian, 5.1% other, and 3.9% not specified for examinees; 78.8% White, 5.2% Asian, 4.8% Latino, 3.8% Black, 0.9% American Indian, 3.0% other, and 3.5% not specified for partners. Couples overwhelmingly agreed on how long they had been romantically involved (mean difference between estimates = 0.03 years), with the average length of relationship being 6.5 years *(SD* = 5.5), the minimum 8 months, and the maximum 48.8 years. This is a highly educated sample, and therefore is not representative of the population as a whole.

Couples were paid $150 for participation, and each couple was given a chance to win $1,000 on the completion of the study. Couples received an initial payment of $10, two consent forms, two background questionnaires, and two return envelopes when they agreed to participate in the study. They returned the completed background questionnaires an average of 3 weeks before the start of the diary period. The diary period consisted of the 5 weeks before the bar exam, the 2 days on which the exam took place, and the week after the exam. Between 1 and 2 weeks before the start of the diary period, both members of each couple received an initial packet containing a batch of daily diary questionnaires, a return envelope, and instructions regarding the diary questionnaires. Packets were mailed to each participant on a weekly basis (six packets over the 6 weeks of the study). Each batch consisted of seven identically structured daily diaries with the exception of the last batch, which consisted of nine daily diaries. The diary form included questions regarding mood, relationship closeness, daily troubles or difficulties, relationship conflicts, and support transactions. Participants were asked to complete the questionnaires separately and not to share or discuss their answers with their partners. Participants were also asked to complete the diaries on the days assigned and to indicate whether each diary had been completed on the correct day.

[1]Because this sample is part of a larger study that focused on methodology, interested couples were randomly assigned to different conditions. Only 72% of interested couples were assigned to the diary design, and our analyses use only those couples.

Only entries that indicated that they had been completed on the correct day were included in the analyses (88% of completed diaries).

Of those who agreed to participate, 89% returned their background questionnaire (372 couples in which both members returned the background and 16 in which only one member did). Two hundred eighteen couples returned all materials (476 participants[2]). The final sample consisted of 293 examinees and 290 partners who completed at least 1 week of the daily diaries.

Measures: Dependent Variables

Closeness—Each evening, participants indicated separately how emotionally close and how physically intimate they were with their partner on a scale ranging from 0 to 4 with midpoints. High numbers indicated more emotional closeness and increased physical closeness, and low numbers indicated emotional distance and lack of physical closeness. Cronbach's alphas for the two items were .71 for examinees and .68 for partners.[3] Items were averaged to create the closeness scale (examinee: $M = 2.27$, $SD = 1.07$; partner: $M = 2.25$, $SD = 1.06$). We adjusted for yesterday's relationship closeness by including lagged relationship closeness as a predictor in the model. Controlling for lagged closeness results in the outcome variable being residualized change in relationship closeness (today's relationship closeness adjusting for yesterday's relationship closeness). This strengthens the claim that any change in relationship closeness is due to the events of the day in question rather than lingering effects from the day before.

Negative mood—Anger, depressed mood, and anxiety were measured using items from the Profile of Mood States (Lorr & McNair, 1971). For each mood, at least three high-loading items from a factor analysis conducted by Lorr and McNair (1971) were used. Anger and anxiety consisted of three items, and depressed mood consisted of four items. For each of these items, participants rated how they felt “right now” on a 5-point scale ranging from 1 *(not at all)* to 5 *(extremely).* The scores were rescaled to a 0–4 interval, and a mean for each mood was obtained by averaging the rescaled values of the relevant items. Anger, depressed mood, and anxiety were highly related (between-person reliability estimate = .60; within-person reliability estimate = .62[4]) and were therefore averaged to form a single negative mood scale that was then centered on the respective overall means (partners: $M = 0.31$ before centering, $SD = 0.52$; examinees: $M = 0.72$ before centering, $SD = 0.74$). It can be seen that on average, examinees as compared with partners reported more than twice as much negative mood. Negative mood was measured twice each day, once in the morning and once at night. Therefore, we adjusted for morning negative mood, and again our outcome variable was residualized change in negative mood, again strengthening the claim that any change in negative mood was due to events of the day in question rather than lingering effects from the day before.[5]

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[2]In some couples, only 1 member returned materials, so the participant numbers reflect how many individual participants returned the materials, and couple numbers reflect the number of couples in which both members returned the materials.

[3]In an effort to lessen the burden of taking the daily diaries, we shortened a closeness scale used in previous studies by one item. We chose to eliminate an item that asked how connected one felt to their partner that day because it appeared redundant with the emotional closeness item (Cronbach's $\alpha = .92$). By doing so, we lowered the alpha of the scale, but this is to be expected because Cronbach's alpha underestimates reliability when items tap different aspects of a construct (Raykov, 1998).

[4]The between-person reliability is interpreted as the between-person reliability of the average of the measures taken on the same day; the within-person reliability is interpreted as the reliability of change within person throughout the study (see Cranford et al., 2006).

[5]Positive mood was also measured using the Profile of Mood States (Lorr & McNair, 1971), but as positive and negative mood have been shown to operate independently of each other we did not condense them into one scale. We did conduct separate analyses looking at positive mood and the effect of receipt of support and found that in both partners and examinees positive mood was not negatively affected by support receipt and was positively affected by giving support. Gleason, Iida, et al. (2003), on the other hand, found that positive and negative mood behaved similarly (support-only days resulted in an increase in negative mood and a decrease in positive mood).

Measures: Predictor Variables

Support provision and receipt—Participants' provision of emotional support to their partner and receipt of emotional support from their partner was assessed in the evening each day. Each measure consisted of a single item in which participants reported whether they had provided emotional support to their partner and, separately, whether they had received emotional support from their partner. Specifically, participants were asked to indicate, by circling yes or no, whether they had received (provided) any help from (to) their partner for a worry, problem, or difficulty in the past 24 hr. Examples of support such as listening and comforting were given to clarify the question. Support receipt was coded 1 and a lack of receipt was coded 0; similarly, support provision was coded 1 and a lack of provision was coded 0.[6]

Covariates

Time—Temporal effects of being in the study were adjusted for by including time in the study as a predictor of both outcomes. It has been shown that the first 3 days of diary studies generally have elevated levels of negative reports, but not of positive reports (Gleason, Bolger, & Shrout, 2003). Given this potentially bias-inducing tendency in our analyses, we eliminated the first 3 days of data, but analyses including these days did not differ from the findings presented. The 4th day of the study was also dropped to account for the use of lagged variables (relationship closeness). The variable representing duration of time in the study was created such that Day 5 was coded 0, Day 6 was coded 1, and so on up to Day 35 (coded 31), resulting in values from 0 to 31 being included in the analyses. Hereinafter, we refer to the days by their code number. Day 31 was the day before the bar examination. We did not include the days of or the days following the examination in the study to limit the sample to persons approaching a stressor. However, additional analyses revealed that the days following the bar examination did not differentiate in important or dramatic ways from the data reported below.

Weekend—We have found closeness to be systematically higher on weekends than on weekdays, and we therefore adjusted for the effects of the weekend. We represented weekend with a variable that was coded 1 for Saturday and Sunday and 0 for Monday through Friday.

Daily stressors—As discussed above, the support-seeking-triage model has suggested that negative effects of support receipt are due to the fact that stress and support co-occur (stress-eliciting support), and therefore when distress increases after support, it is not because of the support, but because of the stressor that prompted that support. This same potential confound exists for relationship closeness and stressors, given that stressful life events are associated with declines in relationship satisfaction (Tesser & Beach, 1998) and an increase in social support. To rule out these alternative hypotheses, a count of participants' daily stressors was included in the model. Each day, participants were asked to indicate whether any of 21 possible stressful events had occurred and to indicate any stressful event that occurred that did not correspond to one on the list. The number of events indicated was summed and centered on the grand mean (partner M = 1.61 before centering, SD = 1.55; examinee M = 1.76 before centering, SD = 1.65).

[6]Practical support was also measured and behaved very similarly to emotional support (smaller beta coefficients, but in the same direction) in both bar examinees and their partners; however, when both emotional and practical support were entered into the models, practical support no longer had any explanatory power, but the results for emotional support remained. Given this pattern, we report only the effects of emotional support.

Gender—Gender (coded –.5 for men and .5 for women) was originally included as a covariate, but because it did not affect the variables of interest (receiving and providing support) and to simplify the model presented, it was not included in the analyses reported below.

Moderating Variables

Both potential moderating variables were measured in the background questionnaire, which both members of the couple completed approximately 3 weeks before starting the diary portion of the study (see above for more details about the background questionnaire administration).

Relationship satisfaction—Overall relationship satisfaction was measured with one item taken from the Dyadic Adjustment Scale (Spanier, 1976), on which 0 = *extremely unhappy*, 3 = *happy*, and 6 = *perfectly happy*. Relationship satisfaction was generally high among these couples (examinees: $M = 4.45$, $SD = 1.04$; partners: $M = 4.56$, $SD = 1.03$).

Self-esteem—Self-esteem was measured using the Rosenberg Self-Esteem scale (Rosenberg, 1965), a 7-item Likert scale ranging from 0 *(low self-esteem)* to 4 *(high self-esteem;* examinees: $M = 3.17$, $SD = 0.59$; partners: $M = 3.16$, $SD = 0.60$). Alpha reliability was .86 for examinees and .88 for partners.

Analytic Approach

The goal of the current analysis was to examine the effects of receiving support from and providing support to one's partner on both an individual's evaluation of the degree of closeness in the relationship and simultaneously on an individual's level of negative mood. We used a multilevel statistical model to investigate these relationships separately for partners (less stressed) and examinees (highly stressed). The models had two levels: a within-individual level (over time) and a between-individuals level. The model also took into account the fact that outcomes, negative mood and closeness, were clustered within individuals.[7] Using the multivariate approach described by Raudenbush and Bryk (2002), we included both closeness and negative mood in a single multilevel analysis. The multivariate approach allowed us to estimate the correlation between the random effects for negative mood and closeness and to examine the frequencies of participants showing a moderated pattern (see Figure 1, Model 1) and a differential effects pattern (see Figure 1, Model 2). All analyses were conducted using the MIXED procedure in SAS (SAS Institute, 2003).

The within-individual level of the analysis allowed each individual's relationship closeness and negative mood to be modeled as a function of receipt of support. We predicted a given day's closeness and negative mood for a particular individual; we adjusted for either yesterday's closeness or same-day morning negative mood, respectively; number of days in the study; and weekend effects. Given that support transactions may be more likely to take place on days when an individual experiences stressful events, a count of daily stressors was included to adjust for the effects of stressful events as a third variable. The equation was as follows:

[7]Kenny, Kashy, and Bolger (1998) provided a general description of multilevel statistical models. Raudenbush and Bryk (2002) showed that these models can be influenced by both within- and between-individuals variation. When within-person and between-person effects are predicted to be the same, the multilevel analysis that combines the effects is recommended.

$$\begin{aligned} Y_{ijk} = (N_{ijk}) * [b_{0ni} + b_{1n}Y_{ijk-1} + b_{2n}D_{ik} + b_{3n}W_{ik} + b_{4n}S_{ik} \\ + b_{5n}G_{ik} + b_{6ni}R_{ik} + b_{7n}(G_{ik} \times R_{ik}) + e_{ijk}] \\ + (C_{ijk}) * [b_{0ci} + b_{1c}Y_{ijk-1} + b_{2c}D_{ik} + b_{3c}W_{ik} + b_{4c}S_{ik} \\ + b_{5c}G_{ik} + b_{6ci}R_{ik} + b_{7c}(G_{ik} \times R_{ik}) + e_{ijk}]. \end{aligned} \quad (1)$$

The dependent variable, Y_{ijk}, is the outcome for participant *i* for outcome *j* (when *j* = 1 it is negative mood; when *j* = 2 it is closeness) on day *k*. Thus, there were two records for each day within participant, so the maximum number of records that a participant contributed was 62. When the outcome is negative mood, N_{ijk} = 1 and C_{ijk} = 0, and the first part of the model is selected and all of the *b* coefficients have the subscript *n*. When the outcome is closeness, N_{ijk} = 0 and C_{ijk} = 1, and the second part of the model is selected and each of the *b* coefficients have a subscript *c*. Y_{ijk-1} is morning negative mood for individual *i* when *j* is equal to 1; Y_{ijk-1} is yesterday's closeness for the same individual *i* when *j* is equal to 2; D_{ik} is the number of days in the study; W_{ik} indicates whether it is a weekend day or not; S_{ik} adjusts for the number of stressors experienced; G_{ik} is the individual's report of providing (giving) support; R_{ik} is the individual's report of receiving support; $G_{ik} \times R_{ik}$ is the interaction term for providing and receiving support, and the residual components are represented by e_{ijk} The coefficient b_{0ni} is the regression intercept for negative mood for individual *i* and represents negative mood on the first weekday of the study when the individual has neither given nor received support and all other variables are at their projected average level (as morning mood and daily stressors are grand mean centered). The coefficient b_{0ci} is the regression intercept for closeness for individual *i* and represents closeness on the first weekday of the study when the individual has neither given nor received support and all other variables are at their projected average level (as yesterday's closeness and daily stressors are grand mean centered).

As Bolger and Shrout (2007) discussed, the mixed-model approach can be specified to acknowledge that the residuals on adjacent days are likely to be correlated, and we used this specification in the analysis we report here. This specification allowed us to account for dependency between outcomes in individuals and within individuals across time.

The between-individual level of the analysis allows us to model possible individual differences in the coefficients specified in Equation 1. We fit a model that considered intercepts for both closeness and negative mood to be random (i.e., to vary across persons) and the effect of support receipt on each of the two outcomes. The formal specification of these models involves the inclusion of random effects in the Level 2 equation. These have a mean of zero but variance that is assumed to be nonzero. For example, the between-individuals level of the model for the intercepts involves the sum of overall means (γ) and random effects *(u)*. Our analytic model also allowed the random effects for the intercepts and the support receipt effects to be correlated across both effect type and outcome variable. For those interested in the details of this analysis, the syntax used is available from Marci E. J. Gleason. The Level 2 equations were

$$\begin{aligned} b_{0ni} &= \gamma_{0n} + u_{0ni} \\ b_{0ci} &= \gamma_{0c} + u_{0ci} \\ b_{6ni} &= \gamma_{6n} + u_{6ni} \\ b_{6ci} &= \gamma_{6c} + u_{6ci}. \end{aligned} \quad (2)$$

In addition, we tested the moderation hypothesis in two separate multivariate, multilevel analyses. The same Level 1 equation described in Equation 1 was used for each analysis. The Level 2 equations were modified when testing for moderation to include the moderators

(self-esteem or relationship satisfaction), resulting in an additional predictor in each of the four equations. We did not alter the specifications of the random effects for the moderation tests.

Results

Support Patterns

Examinees reported receiving support on 50% of days, whereas partners reported receiving support on only 40% of days. Examinees reported giving support on 37% of days, whereas partners reported giving support on 53% of days. Examinees' support receipt increased over time *(r* = .09, $p < .01$), and their reports of giving support decreased *(r* = –.03, $p < .01$). The opposite pattern is observed for partners, that is, partners received less and provided more support as the bar exam approached (receiving, $r = -.03$, $p < .05$; giving, $r = .11$, $p < .01$).

Fixed Effects

Table 1 presents the fixed-effect results for both outcomes for partners and examinees. Only the variables of interest are reported here. The main effect of support receipt was significant for both negative mood, partners: $b_{6n} = 0.075$, $t(289) = 3.54$, $p < .001$; examinees: $b_{6n} = 0.037$, $t(292) = 2.04$, $p < .05$, and closeness, partners: $b_{6c} = 0.248$, $t(289) = 6.37$, $p < .001$; examinees: $b_{6c} = 0.411$, $t(292) = 12.19$,$p < .001$. The main effect of giving support on negative mood was significant for examinees, but not for partners, partners: $b_{5n} = –0.001$, $t(289) = –0.10$, *ns;* examinees: $b_{5n} = –0.048$, $t(292) = –2.24$,$p < .05$. The main effect for giving support was significant for both partners and examinees on closeness, partners: $b_{5c} = 0.245$, $t(289) = 8.73$,$p < .001$; examinees: $b_{5c} = 0.319$, $t(292) = 8.63$, $p < .001$. For negative mood, these effects have to be interpreted in the context of a significant interaction between receipt and provision (see Table 1). When one takes the interaction into account, the current findings replicate those of Gleason, Iida, et al. (2003), in which it was found that supportive equity days (days in which support is both received and provided) are associated with the lowest levels of negative mood and that receipt-only days are associated with the highest levels of negative mood (see Figure 2). As the figure shows, the receipt of support is detrimental to negative mood, but only on days in which the recipient of support did not also provide support to his or her partner.

Figure 3 shows the results for closeness. Support receipt's positive effects on closeness were evident despite its also being associated with an increase in negative mood. Although there was a marginal interaction between receipt and provision on closeness for partners, suggesting that supportive equity days were particularly positive for partners, the interaction does not diminish the beneficial effects of support receipt on closeness.

Partners' effects of receiving and giving support on relationship closeness did not differ (difference between estimates = 0.002), $t(289) = 0.10$, *ns.* However, examinees' effect of receiving support was greater than the effect of giving support (difference between estimates = 0.09), $t(292) = 2.09$, $p < .05$. Days on which support was received and not given were significantly more negative when compared with the other three types of days for both partners (difference between estimates = 0.08), $t(289) = 4.45$, $p < .001$, and examinees (difference between estimates = 0.08), $t(292) = 5.19$, $p < .001$.

Random Effects

The random effects covariance matrix for both partners and examinees is displayed in Table 2. The model generated random effects for the intercepts of closeness and negative mood both between and within level. The within-level random effects provide information about what is occurring in individuals' lives that affects their levels of negative mood and

closeness that was not captured by our models. As can be seen, the variances for both the intercept for negative mood and closeness are significant, suggesting that the model does not account for all the variation in these variables. In addition, the evidence for a negative covariance between these intercepts suggests that whatever is causing that within-level daily variation affects closeness and negative mood in opposite ways. On a given day, when negative mood is increased, closeness is decreased and vice versa.

The between-person random effects for the intercepts of closeness and negative mood provide information about how negative mood and closeness behave across individuals. By generating random effects, we were able to obtain estimates of each individual's intercepts for negative mood and closeness. If the random effects are positively correlated, it suggests that individuals who have generally higher levels of closeness also have higher levels of negative mood; if the correlation between them is negative, it suggests that individuals who have generally higher levels of closeness have lower levels of negative mood and vice versa. There are also between-person random effects for the slopes (the effect of receipt on both negative mood and closeness for each individual), and their correlation will give us information as to whether these effects are systematically linked across individuals.

Using the random effects variances and covariances, we calculated the correlations between the intercepts for negative mood and closeness and the effects of receipt on negative mood and closeness (the slopes) at the within level. As can be seen in Table 2, partners' covariance between the random effect for the intercept of negative mood (τ_{0n} = .035) and the intercept for closeness (τ_{0c} = .212) is –0.027. This results in a correlation of –.31 ($p < .05$) for partners, and similarly the correlation for examinees is –.25 ($p < .05$). These correlations suggest that people who are higher in negative mood tend to be lower in closeness. The correlation between the random effects of support receipt on both outcomes is – .36 ($p < .05$) for partners and –.31 ($p < .05$) for examinees, suggesting systematic differences across individuals.

A representation of these negative correlations of the slopes can be found in Figure 4. Each point on the scatterplots represents the estimated random effect of receipt on negative mood (*x*-axis) and on closeness (*y*-axis) for a single individual—in other words, each point represents how support receipt typically affects a particular individual's negative mood and feelings of closeness. As can be seen, there are individuals in three of the four quadrants of the scatterplots. Most individuals fall in the upper right quadrant (examinees = 209 individuals; partners = 245 individuals); members in this quadrant experience something akin to the fixed effects: an increase in both closeness and negative mood. However, a sizable portion of individuals also fall into the upper left quadrant (examinees = 80; partners = 40); support receipt is only positive for members of this quadrant: It decreases negative mood and increases closeness. Finally, a few individuals fall into the lower right quadrant (examinees = 4; partners = 5); support receipt is only negative for members of this quadrant: It increases negative mood and decreases closeness.

Selecting individuals at both the positive and the negative ends of the scatterplots and plotting their individual data allows us to see how support differentially affects different people. Figure 5 displays the data for 2 partners and 2 examinees. The top two graphs display data for a partner and examinee for whom the receipt of support is negative. Notice that on days on which they receive support, their closeness ratings are low and their negative mood ratings are high. The bottom two graphs show a strikingly different pattern—these are of individuals who are positively affected by the receipt of support. Notice that on days on which they receive support, their closeness ratings are high and their negative mood ratings are low. These “extreme” individuals are good examples of how people differentially react to the receipt of support, but it is important to note that most individuals fall in the middle of

the distribution and experience something more akin to the fixed effects results when they receive support: an increase in negative mood and an increase in feelings of closeness.

Moderation

The moderators included in the analyses did not explain why individuals react differently to support receipt. Relationship satisfaction failed to moderate the effects of support receipt on negative mood and closeness for both examinees and partners. Self-esteem did not moderate the receipt of support for examinees on either negative mood *(b_n = .024, SE = .027, ns)* or closeness *(b_c = – .056, SE = .049, ns).* It did moderate the effect of support receipt on negative mood for partners *(b_n = –0.067, SE = .026), t*(289) = – 2.58, $p < .05$, but not the effect of support receipt on closeness for partners *(b_c = –.005, SE = .045, ns).* These results suggest that when one is not approaching a large stressor, the negative effects of support receipt may be tempered for those with above-average self-esteem (self-esteem was group-mean centered). However, given that the effect of receipt of support on negative mood is b_n = .075 and there are no participants who are more than 0.90 units above the mean in self-esteem (the mean self-esteem for partners was 3.16 and the maximum score was 4.0), this moderation makes receipt of support less detrimental to negative mood, but not on average positive, for those high in self-esteem.

Discussion

The results support Model 2 (differential effects) from Figure 1 in that receiving support simultaneously increased relationship closeness and negative mood. However, this was only true on days when support was not provided (22% of days for partners and 21% of days for examinees). On days when support was both received and provided—supportive equity days (31% of days for partners, 29% of days for examinees)—support receipt increased relationship closeness and decreased negative mood. This was true for individuals who were approaching a major stressor (examinees) and for their less stressed partners. The varying stress level did not substantially affect the influence of support receipt or provision on relationship closeness and negative mood.

Although this pattern is evident on average, it is not the whole story. Evidence from the random effects analysis suggests that support also differentially affects individuals, and this is in line with Model 1 (individual differences) from Figure 1. Namely, the negative correlations between the random effects of receipt on negative mood and on closeness suggest that individuals who experience a larger increase in negative mood when they receive support experience less of an increase in closeness; conversely, individuals who experience a larger increase in closeness when they receive support experience less of an increase in negative mood. Although this does not eliminate support receipt's average effect on outcomes across people, it does indicate that the duality observed for an average individual is limited. The majority of participants were in the middle of the spectrum of support reactivity and reported experiencing increases in both outcomes following support receipt, whereas those on the ends of the spectrum either benefited from support or suffered from support. It seems that support not only differentially affects closeness and negative mood, but also operates differently across individuals.

Several possible explanations for the overall finding that support increases both negative mood and relationship closeness seem likely, including characteristics of the recipient, characteristics of the provider, and characteristics of the relationship. The characteristics of the recipients that we tested here, self-esteem and relationship satisfaction, did not explain our pattern of findings. However, there are many other individual difference constructs, such as attachment style, that are plausible moderators but were not included in this study. An intriguing candidate for moderation, which has intuitive ties to Nadler and colleagues' work

on self-esteem (Fisher et al, 1982; Nadler, 1987; Nadler & Fisher, 1976), is perceived respect from one's partner or the extent to which one feels respected and self-efficacious in one's relationship. This construct may be more directly implicated than self-esteem when considering support exchanges between partners. For instance, work on self-efficacy has demonstrated that judging oneself as being inefficacious can impair coping and goal achievement (Bandura, 1982), and the receipt of support may lead some individuals to doubt their ability to accomplish goals on their own. Although we were not able to test this idea in the current study, it is bolstered by the current findings that providing support is beneficial, particularly when one has received support. Demonstrating one's efficacy through the provision of support may allow one to accept support from one's partner without experiencing efficacy declines. Should this be the case, we would then want to determine why receiving support signals lack of efficacy for some individuals but not others.

A second explanation for the differential effect documented in this study could be characteristics of the provider. Characteristics such as being a high self-monitor might result in an individual's being a particularly skilled support provider (Flynn, Reagans, Amanatullah, & Ames, 2006), one whose support may be less detrimental to recipients' moods and feelings of efficacy. Work by Lakey, Lutz, and Scoboria (2004; Lakey & Scoboria, 2005) on perceived support suggests that the benefits of perceived social support may be derived not only through personality characteristics of the perceiver, but also through relationship factors such as the perceived similarity of the provider to the recipient. Perhaps the same is true in actual support transactions—the more a recipient feels similar to a provider, the more positive the support given by that provider would be. Other relationship characteristics, such as the match or mismatch of communication styles (see Swann, Rentfrow, & Gosling, 2003), could also lead to the effects documented here. Although we cannot offer definitive evidence supporting a particular explanation for these patterns, given that support is an exchange between at least two individuals it seems likely that at least part of the explanation for these effects will come from dyad-level variables or processes.

Also worth noting was the benefit of support provision for providers, which, regardless of support receipt, improved mood (for examinees) and relationship closeness. Considering provision's beneficial qualities, it is important that social support researchers include it in their studies to understand why giving appears to be better than receiving. Reciprocity research would suggest that giving is positive because it repays our debts or puts others in our debt (Uehara, 1995) and that it is a tool that individ- uals use to prove their worth in their social group (Buunk & Schaufeli, 1999). It may also be that giving support boosts self-esteem by making one feel more competent and needed (Fisher et al., 1982). Provision's benefits need to be explored more thoroughly, particularly in the context of close relationships.

These results speak directly to two recently proposed theories in the close relationships literature: Cutrona et al.'s (2005) relationship enhancement model of social support and Reis et al.'s (2004) perceived partner responsiveness model. The relationship enhancement model of social support suggests that consistent supportive responses can lead to higher perceived partner support, which leads to greater trust, relationship satisfaction, and ultimately better health. Although this model is widely supported by research on perceived support availability, it has been less clear how to reconcile findings regarding the negativity of social support receipt with these ideas. The current research suggests that supportive acts, despite causing personal distress for some individuals, enhance relationship closeness. Perhaps it is this positive effect of support that leads to the positive effects of perceived support and ultimately to relationship satisfaction and health.

Reis et al. (2004) also referred to the benefits of perceived availability of support in their discussion of perceived partner responsiveness and also noted that the research on support receipt itself has questioned its benefit. They suggested that the field needs to examine how the effects of social support differentially affect outcomes and individuals. The current research does both of these and suggests that the benefits of support are largely due to relationship enhancement (i.e., increased closeness), although it is important to note that this association itself varies by individual. Actual instances of support, despite some negative "side effects," may be one of the more important ways that partners establish responsiveness.

The lack of gender effects on the variables of interest in both studies may seem surprising, but it is consistent with the support literature that has found similarities in support processes for men and women (Neff & Karney, 2004; Porter et al., 2000). However, a few studies have shown that men and women react differently to support receipt (see Antonucci & Akiyama, 1987; Cutrona, 1996). It is important to note that we did find some gender effects—for instance, men tended to experience more negative mood and to be less negatively affected by troublesome events— but not on the variables of interest (support receipt and provision). Perhaps gender differences in support processes would have emerged if we had investigated the amount of support requested or received by men and women.

Limitations

This study had several limitations, some of which have been discussed above. The sample was not randomly chosen and consisted of well-educated individuals. It is possible that this pattern of results would not be present in a less privileged population. In future studies, more diverse samples should be sought to determine the generalizability of these findings.

In addition, given that this was a nonexperimental study we were unable to completely adjust for the level of stress participants experienced and to definitively establish that support increased negative mood instead of just co-occurring with it. We took steps to limit this concern: We included a count of stressful events in all analyses and adjusted for morning negative mood. In addition, by demonstrating the effects in both highly stressed individuals (ex-aminees) and less stressed individuals (partners), we feel confident that support receipt can have these mixed effects regardless of overall stress level. Furthermore, the simulation study by Seidman et al. (2006) concluded that the negative effects associated with support receipt in naturalistic studies could not reasonably be caused by co-occurring negative events—the parameter values needed for such an association were unrealistic. Finally, a recent experimental study demonstrated the negative effects of support receipt on mood (Bolger & Amarel, 2007). Given these previous findings and the precautions we took to minimize this concern, we feel confident that support is causally linked to negative mood in this study. In the future, however, we hope to demonstrate this pattern of findings in an experimental setting.

Our analyses of support receipt and provision included only emotional support. Although we also asked about practical and instrumental support, we found that emotional support was the driving force behind our findings and therefore included only emotional support in our models. However, research by other individuals has shown that emotional support can be further expanded into such things as esteem support, companionship, and caring (Kang & Rafaeli, 2007). Perhaps such finer distinctions in the type of support received would shed some light on the current findings. For instance, it may be that esteem support is both common and unhelpful, whereas companionship is less common but beneficial. Also, we had participants indicate whether they had received support or not, but did not obtain information on the amount of support they received. Future studies should include a more

detailed collection of support that may shed light on both differential effects of support receipt and individual differences in the effects of support receipt.

Finally, although we did include theoretically important constructs as moderators, there are several others that would be of interest that were not included. These include not only characteristics of the recipient (i.e., perceived competence), but also of the provider (i.e., empathy or responsiveness) and of the relationship itself (i.e., communication style). Future studies would do well to examine such possible moderators.

Concluding Thoughts and Implications

The effects of support receipt in this study were consistent and compelling. Although actual support receipt has been linked to negative outcomes (Barrera, 1981; Bolger et al., 2000; Gleason, Iida, et al., 2003), this study demonstrated that this does not appear to be true for relationship closeness. These findings highlight how a single act (receiving support) can make one feel better in one domain (relationship closeness) but worse in another (personal mood). Perhaps it is this duality that allows social support to be considered positive by laypersons even though psychologists have documented that it can be ineffective and even detrimental. Furthermore, evidence of random effects showed that this duality itself showed substantial between-individual heterogeneity, which implies that models of support processes need to accord a more central role to heterogeneity than they have done heretofore. At this time, we have not identified moderators of this heterogeneity and therefore cannot explain why people react differently to support, but understanding that individuals react differently is an important step toward understanding social support processes in close relationships.

In conclusion, it is worth considering that the implications of our heterogeneity findings may not be limited to the social support literature. Although many of the constructs studied in psychology are likely to have differential effects across individuals, dyads, and social contexts, rarely are studies designed in ways that allow such heterogeneity to be reliably distinguished. Potential moderators can be included in studies, of course, but the intensive longitudinal approach taken here allows one to quantify the extent of heterogeneity without having identified moderators a priori. Thus, these intensive designs have the possibility to demonstrate that many of the findings in the field reflect average effects, averages that can obscure important, consequential variability.

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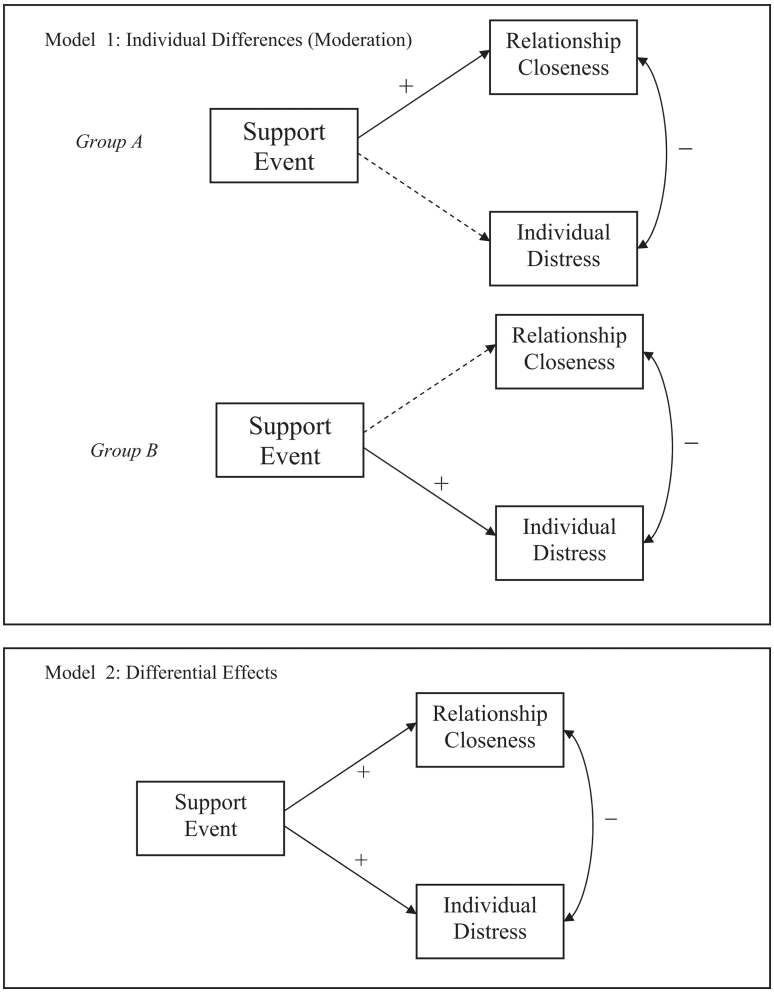

Figure 1.

Possible models for understanding the effects of support receipt on individual distress and relationship closeness. In Model 1, support receipt increases relationship closeness in some individuals (Group A) and increases distress in others (Group B). In Model 2, support receipt increases both distress and closeness in all individuals. The weak or missing effect is represented by a dashed arrow; the strong effect is represented by a solid arrow.

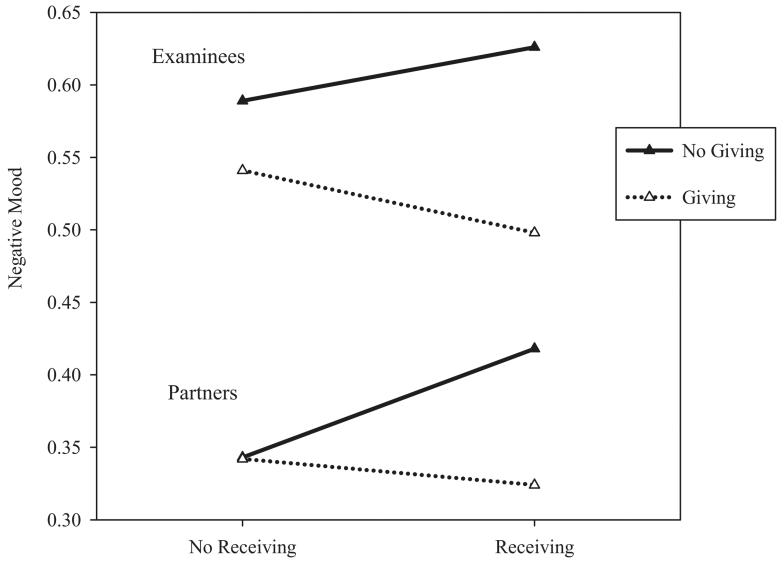

Figure 2.
The effects of support receipt and provision on evening negative mood for both partners and examinees.

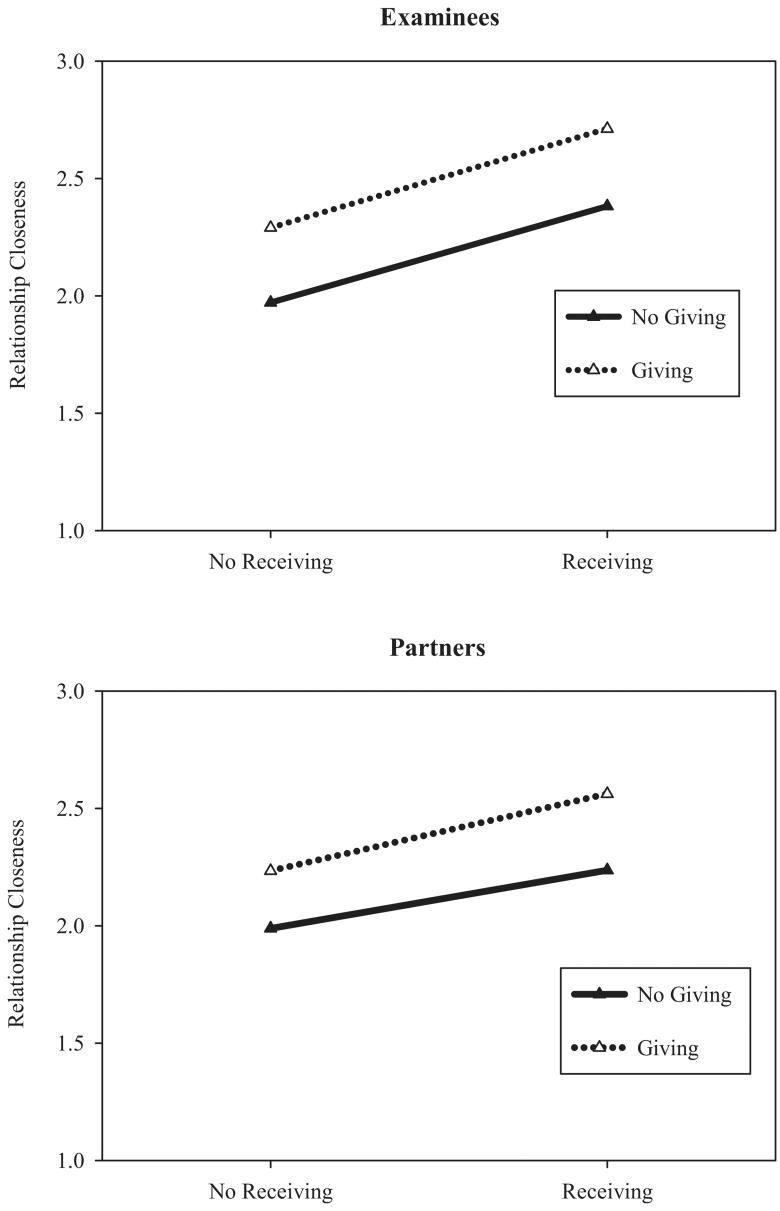

Figure 3.
The effects of support receipt and provision on relationship closeness for both partners and examinees.

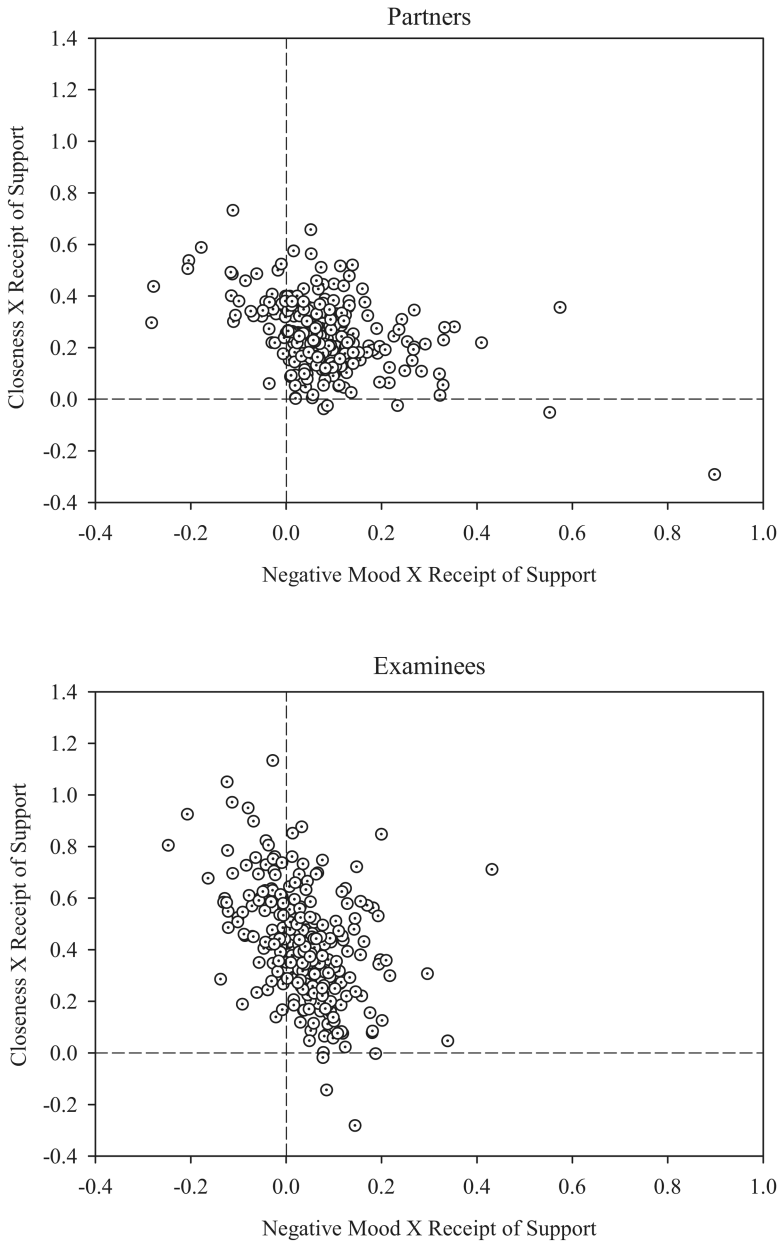

Figure 4.

Scatterplots of the random effects of Receipt × Closeness and Receipt × Negative Mood for each partner and examinee. Individuals whose point lies in the upper left-hand quadrant are those for whom support receipt decreases negative mood and increases closeness; those in the upper right-hand quadrant are those for whom support receipt increases negative mood and also increases closeness; and those in the lower right-hand quadrant are those for whom support receipt increases negative mood and decreases closeness.

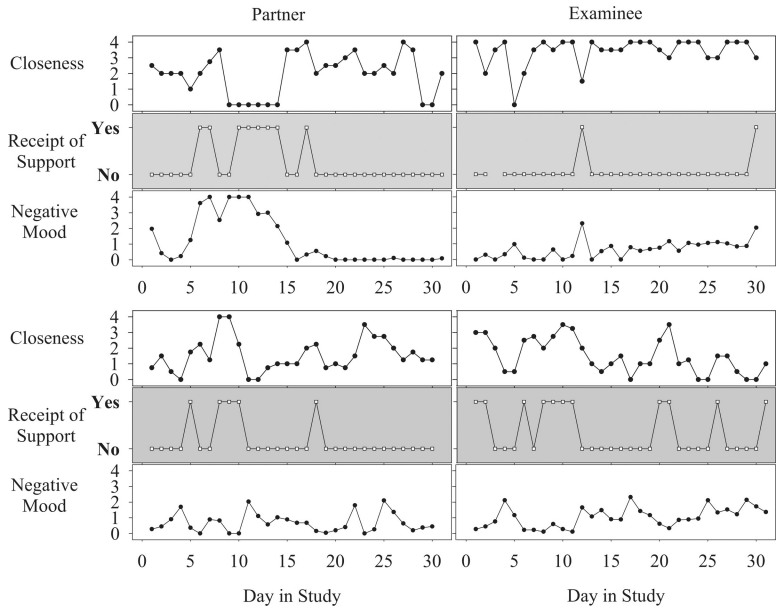

Figure 5. Top: Partner and examinee for whom support decreases closeness and increases negative mood. Bottom: Partner and examinee for whom support increases closeness and decreases negative mood

Table 1

Multilevel Analysis Results Relating Daily Support to Negative Mood and Closeness for Partners and Examinees: Fixed Effects

Variable	Partners (n= 290)		Examinees (n= 293)	
	γ	SE	γ	SE
Negative mood				
Intercept	0.343**	0.016	0.589**	0.021
Day × 10	0.015*	0.005	0.102**	0.007
Weekend	–0.016†	0.009	–0.016	0.011
Daily stressors	0.027**	0.003	0.064**	0.004
Morning negative mood	0.428**	0.012	0.472**	0.011
Receiving emotional support	0.075*	0.021	0.037*	0.018
Giving emotional support	–0.001	0.014	–0.048*	0.021
Receiving Emotional Support × Giving Emotional Support	–0.093*	0.023	–0.080*	0.027
Closeness				
ntercept	1.989**	0.037	1.971**	0.046
Day × 10	–0.057**	0.010	–0.048**	0.001
Weekend	0.113**	0.019	0.135**	0.019
Daily stressors	–0.043**	0.007	–0.065**	0.007
Yesterday's closeness	0.318**	0.011	0.140**	0.011
Receiving emotional support	0.248**	0.039	0.411**	0.034
Giving emotional support	0.245**	0.028	0.319**	0.037
Receiving Emotional Support × Giving Emotional Support	0.080†	0.046	0.011	0.046

† $p < .10$.

* $p < .05$.

** $p < .001$.

Table 2

Multilevel Analysis Results Relating Daily Support to Negative Mood and Closeness for Partners and Examinees: Random Effects

Level and variable	Partners (*n* = 290)		Examinees (*n* = 293)	
	T	SE	T	SE
Level 1				
Variance of negative mood (NM)	0.128**	0.002	0.176**	0.003
Variance of closeness (CL)	0.538**	0.010	0.508**	0.009
Covariance of NM and CL	–0.054**	0.003	–0.057**	0.004
Level 2				
Variances				
NM	0.035**	0.004	0.074**	0.009
CL	0.212**	0.023	0.444**	0.045
Receipt × Negative Mood (RNM)	0.030**	0.006	0.021**	0.005
Receipt × Closeness (RCL)	0.053**	0.016	0.097**	0.020
Covariances				
NM–CL	–0.027**	0.007	–0.045**	0.014
NM–RNM	–0.007*	0.004	–0.007*	0.005
NM–RCL	0.010	0.010	0.019*	0.009
CL–RNM	0.004	0.008	0.027**	0.012
CL–RCL	–0.052**	0.015	–0.128**	0.025
RNM–RCL	–0.014*	0.007	0.014*	0.008

Note. Significance tests of Level 1 effects are constricted ratio Wald tests; significance tests of Level 2 variances are chi-squares *(df*= 4); significance tests of Level 2 covariances are chi-squares *(df* =1).

* $p < .05$.

** $p < .001$.