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Disappointment's Sting Is Greater Than Help's Balm: Quasi-Signal Detection of Daily Support Matching

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The optimal matching model of support suggests that supportive behaviors are effective when they match recipients' needs or goals. In 2 studies, we used quasi-signal detection to test this model. Specifically, we simultaneously modeled the associations of affective and relational outcomes with matching ("hits"), underprovision ("misses"), and overprovision ("false alarms") regarding emotional or practical support. In both studies ($N = 44$ and 38 couples, respectively), both partners in committed relationships reported daily receipt of and desire for support, as well as moods and relational outcomes for 21 days. Emotional (but not practical) matching was associated with favorable relational outcomes only; overprovision had a minimal effect. In contrast, both emotional and practical support underprovision were associated with adverse outcomes, both affective and relational in nature. Study 2 ruled out the possibility that stress is the sole mechanism responsible for the adverse effects of underprovision, and found evidence for another, relational mechanism; specifically, the results documented the role of perceived partner responsiveness as a mechanism mediating the deleterious effect of underprovision.

Keywords: quasi-signal detection analyses, daily diaries, support matching, social support, dyadic data

When we are in a romantic relationship, we expect our partners to provide us with a "safe haven" and to respond in a supportive manner at times of need and distress (Collins & Feeney, 2000). The availability of dyadic support positively predicts both individual and relational outcomes (e.g., Bradbury, Fincham, & Beach, 2000; Cutrona, Russell, & Gardner, 2005). In addition, longitudinal studies have demonstrated spousal support's central role in marital trajectories (e.g., Sullivan, Pasch, Johnson, & Bradbury, 2010).

Despite the expected virtues of support from intimate partners, a startling paradox emerges in the findings of studies examining actual receipt of support: Whereas the general perceived availability of support tends to have positive effects, the actual receipt of support does not always help (e.g., Bolger, Foster, Vinokur, & Ng, 1996) and may even be harmful to the recipient (e.g., Reinhardt, Boerner, & Horowitz, 2006). In a review of this literature, Rafaeli and Gleason (2009) brought together several possible explanations for the disappointing, and sometimes negative, effects of support. Prominent among these is Cutrona's (1990; Cutrona & Russell, 1990) optimal matching model, which suggests that support is less effective when it does not properly match support recipients' need.

According to this model, certain types of support are more appropriate (and therefore beneficial) than others at particular times. Cutrona and Suhr (1992) demonstrated that one factor affecting this appropriateness is the controllability of the stressor for which support is offered. Accordingly, these authors found that instrumental support was associated with recipients' satisfaction when their personal control over their problem was low while the providers' was high. Notably, emotional support predicted satisfaction regardless of stressor controllability.

Additional factors beyond the perception of controllability may impact the needs of the stressed partner; moreover, support needs are very idiosyncratic even in defined situations (cf. Rini & Dunkel Schetter, 2010). Thus, it may be more important to examine matching between the support provided and the recipient's *subjective* needs rather than the situation's *objective* characteristics (Cutrona, Cohen, & Igram, 1990).

One study employing the matching-to-subjective-needs approach (Cutrona, Shaffer, Wasner, & Gardner, 2007) found that supportive acts that matched the recipients' goals led recipients to perceive their partners as more sensitive. However, this matching effect was restricted to emotional support and was not evident for practical support. Cutrona and colleagues (2007) concluded that whereas practical support cannot substitute for emotional support in addressing individuals' emotional needs or desires, emotional support can be an appropriate substitute for practical support, even when the latter is preferred. Thus, it seems that emotional (but not practical) support matching is likely to play a positive part in personal and relational well-being.

Beyond the positive effect found for matched emotional support, the literature documents various consequences for support mismatches. Mismatch may take several forms, two of which are *underprovision* (when recipients perceive themselves as not receiving the support they wish for) and *overprovision* (when recip-

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ients perceive themselves as receiving support they hadn't specifically wished for). Several studies have documented consistent deleterious effects of underprovision (e.g., Brock & Lawrence, 2009; Reynolds & Perrin, 2004). In contrast, the findings regarding overprovision are mixed: Whereas Brock and Lawrence (2009; see also Reynolds & Perrin, 2004) found negative effects for overprovision (effects that were worse than those of underprovision), a recent daily diary study found emotional overprovision to be related to greater well-being (Siewert, Antoniw, Kubiak, & Weber, 2011).

The current work embraces Brock and Lawrence's (2009) recommendation of separately estimating the effects of over- and underprovision. It goes one step further by also determining the independent effect of "optimal" matching, and compares each of these "matching states" with a baseline state (no receipt of support and no desire for it). Moreover, it is the first to examine matches or mismatches in the daily life of committed couples. This ecologically valid methodology allowed us to examine the *actual* support behaviors occurring between romantic partners in their daily life and not to rely on measures of perceived support (which, as we noted earlier, yields different effects than actual support receipt; Rafaeli & Gleason, 2009).

Specifically, we adapted the quasi-signal detection (QSD) approach first used by Gable, Reis, and Downey (2003) to test predictions regarding the three matching states (matching, underprovision, and overprovision) relative to the fourth, baseline state. We predicted a beneficial effect of emotional support matching and deleterious effects of both emotional and practical support underprovision. In addition, we examined the effects of support overprovision; because the literature on overprovision has been mixed, we made no directional prediction.

The first study examined the effects of matching, overprovision, and underprovision operationalized with daily dichotomous indices of emotional and practical support desire and receipt. The second study used the same framework with more elaborate measures of support, and examined the mechanism through which support mismatch exerts its intrapersonal and interpersonal adverse effects.

Study 1

The present study was guided by the following hypotheses: First, emotional support *matching* will have a salubrious effect on recipients' mood and relationship feelings; no such effect was expected for practical support matching. Second, both emotional and practical support *underprovision* will have an adverse effect on recipients. Third, and in line with the conflicting findings documented in the literature, *overprovision* might have a weak and inconsistent (positive or negative) effect on recipients' moods and relationship feelings.

Method

These data were obtained from a broader study of couples in committed relationships; some early results from this study (unrelated to the current question) appear in Gadassi, Mor, and Rafaeli (2011).

Participants. Couples were recruited through fliers and online classified websites. These invited participants to a couples' study in exchange for $90 per couple and for inclusion in a raffle for $200. Participants were 55 couples from the New York City area who had been cohabiting for a minimum of 6 months. We excluded data from 11 couples: Three same-sex couples were excluded because we wanted to test for gender differences, seven others had insufficient daily diary data (fewer than seven entries), and another couple had technical problems with the daily diary. In the remaining 44 couples, the mean age was 27.7 years (SD = 5.1) for women and 30.0 years (SD = 7.8) for men. The vast majority had completed high school (96.6%); most (66.7%) had also completed a bachelor's degree. Fifty participants (56.8%) were Caucasian, 10 (11.4%) were African American, six (6.8%) were Latino, six (6.8%) were Asian, 15 (17.0%) defined themselves as "other," and one failed to provide ethnicity information. The average relationship duration was 4.4 years (SD = 3.2, range = 7 months–18.1 years). The average length of cohabitation was 2.6 years (SD = 2.5, range = 6 months–14.3 years). Sixteen couples (36.4%) were married.

Procedure. The study involved lab and diary procedures conducted in a counterbalanced order. In the current study, only the diary data are of interest. In the first lab visit, participants were introduced to the electronic diary (Palm Zire 21 devices; Palm, Inc., Sunnyvale, CA) and instructed in its use. Participants were told that their responses would be kept anonymous and confidential even from their partner, and they were asked not to discuss their responses with each other. The diaries were completed over a period of 21 days. Participants were instructed to fill out the questionnaires every evening, within 1 hr of going to sleep. Diary entries were time stamped to ensure that participants completed the diaries when instructed. During the 21-day diary period, participants completed an average of 19.8 (SD = 3.3) diary entries (94.3%).

Measures.

Daily emotional and practical support. Each evening, participants indicated whether they had received any emotional or practical help from their partner during the course of that day for a worry, problem, or difficulty in the past 24 hr. Emotional and practical supports were each assessed dichotomously with the following items: Did you receive any emotional (practical) help from your partner? Examples of emotional support (e.g., listening, comforting) and practical support (e.g., doing something concrete) were given. Participants also indicated whether they sought emotional and practical help from their partner (again, coded dichotomously).

Daily positive and negative mood. Participants' daily moods were assessed using an adapted and shortened daily diary version (Cranford et al., 2006) of Lorr and McNair's (1971) Profile of Mood States, which included 18 items that were rated on 5-point scales, ranging from *not at all* to *extremely*. Based on Watson and Tellegen's (1985) positive and negative activation model, these items were aggregated to create two scales: one for positive affect (PA; e.g., cheerful, lively) and one for negative affect (NA; e.g., angry, anxious). The two scales were rescaled to a 0–100 range to ease interpretation. The between-persons and within-person reliabilities for the PA and NA scales were computed using procedures outlined in Cranford et al. (2006). Respectively, the between-persons and within-person reliabilities were .94 and .85 for PA and .96 and .83 for NA.

Daily relationship feelings (RFs). Participants' daily RF levels were assessed using a daily measure (see Rafaeli, Cranford, Green, Shrout, & Bolger, 2008) that included 12 items, six assessing negative feelings within the relationship (e.g., angry, sad, fearful) and six others assessing positive feelings within the relationship (e.g., passionate, loved, content). Items were rated on 5-point scales, ranging from *not at all* to *extremely*. The scales were rescaled to a 0–100 scale. The between-persons and within-person reliabilities were .96 and .88 for positive RFs and .92 and .81 for negative RFs.

Results

To model the effects of support-matching states on moods and RFs, we adapted the QSD paradigm to examine simultaneously the effects of the support-matching states on each outcome. For each day and separately for emotional and for practical support, each participant was assigned to one of four categories (i.e., baseline [correct rejection], support matching [hit], support overprovision [false alarm], and support underprovision [miss]) based on the conjunction between the participant's reports of support receipt and desire. These four categories were represented by three dummy variables. In dummy variable analyses, the fourth (baseline) category needs no explicit code as it was redundant with the combination of the other three codes. Simultaneous inclusion of the $k - 1$ dummy codes turns each variable into a contrast between that code and the baseline reference category.

The descriptive statistics of the matching states are presented in Table 1 separately for men and women. Women had more matched support days and fewer days of baseline than men, although these differences failed to reach significance (Bonferroni-corrected $\alpha < .0125$).

Effects of support matching, overprovision, and underprovision on participants' moods and RFs. Because our data had a multilevel structure (days nested within persons nested within couples), we used multilevel regression models (SAS PROC MIXED). Such models have two levels (a within-individual level and a between-individuals level), take into account the nonindependence of partners in a couple, and can accommodate nonbalanced data (see Laurenceau & Bolger, 2012). We were interested in both between-persons (e.g., the degree to which a person was characterized by more frequent matching over the course of the diary) and within-person (e.g., the degree to which a certain day was characterized by greater matching than the person's average) effects. For this reason, we tested a series of models in which each daily outcome was predicted by the participants' *averages* of the support-matching states, alongside *daily deviations* from these averages. We adjusted for the previous day's outcome, which allowed us to reduce the possibility of reverse causation (i.e., that changes in daily affective and relational outcomes precede or cause the matching states) as well as to interpret the outcomes as change scores. In addition, we controlled for the effect of time (days in the study) and examined possible differences due to gender.

The generic day-level within-individual (Level 1) equation was

$$\begin{aligned}\text{Outcome}_{ijk} = {} & \beta_{0ij} + \beta_{1ij}\text{Outcome}_{ij(k-1)} + \beta_{2ij}\text{Time}_{ijk} \\ & + \beta_{3ij}\text{Matching}_{ijk} + \beta_{4ij}\text{Overprovision}_{ijk} \\ & + \beta_{5ij}\text{Underprovision}_{ijk} + e_{ijk},\end{aligned}$$

where Outcome_{ijk} is the predicted outcome (e.g., positive mood) for subject i in couple j on day k, $\text{Outcome}_{ij(k-1)}$ is that subject's outcome on the previous day, Time_{ijk} is that subject's day in the diary; Matching_{ijk}, $\text{Overprovision}_{ijk}$, and $\text{Underprovision}_{ijk}$ are that subject's (emotional or practical) support matching, overprovision, and underprovision on that day, respectively; b_{0ij} is the regression intercept for this subject (reflecting the subject's outcome at baseline—on days with no support and no desire for it), and e_{ijk} is a residual component for this subject on the particular day. Each Level 1 predictor was centered on the subject's own mean, so effects could be interpreted as changes in outcome associated with deviation from the subject's average reports.

To examine the between-persons effects, we included each participant's mean levels of the support-matching states in Level 2 of the models; these were centered on the sample's grand mean. In

Table 1
Study 1 and Study 2 Descriptive Statistics and Paired t *Tests for Gender Differences in Emotional and Practical Support-Matching States*

	Study 1						Study 2					
			Men	Women	Paired *t*				Men	Women	Paired *t*	
Variable	*n*	% of sample	Mean (*SD*)	Mean (*SD*)	*t*(43)	*p*	*n*	% of sample	Mean (*SD*)	Mean (*SD*)	*t*(37)	*p*
Emotional support												
Baseline	992	94	0.51 (0.29)	0.62 (0.25)	−2.09	.042	5691	100	4.27 (1.3)	4.17 (1.12)	0.46	.643
Matching	446	83	0.32 (0.28)	0.20 (0.25)	2.49	.016	1255	76	0.76 (0.95)	1.07 (0.94)	−1.58	.122
Underprovision	96	44	0.06 (0.08)	0.05 (0.08)	0.64	.526	378	68	0.28 (0.54)	0.32 (0.48)	−0.54	.590
Overprovision	208	78	0.11 (0.13)	0.13 (0.11)	−0.97	.338	806	74	0.69 (0.74)	0.44 (0.62)	1.96	.057
Practical support												
Baseline	754	93	0.37 (0.26)	0.48 (0.32)	−2.28	.027	5978	100	4.43 (1.18)	4.42 (0.86)	0.60	.953
Matching	617	92	0.42 (0.27)	0.30 (0.29)	2.27	.028	999	75	0.62 (0.82)	0.86 (0.71)	−1.36	.181
Underprovision	58	32	0.03 (0.07)	0.03 (0.06)	0.02	.985	331	62	0.26 (0.52)	0.24 (0.33)	0.23	.80
Overprovision	313	78	0.17 (0.15)	0.18 (0.21)	−0.26	.799	822	83	0.69 (0.71)	0.49 (0.6)	1.60	.118

Note. *n* represents the frequency of each matching state in the entire sample. % represents the percentage of sample experiencing at least one instance of this matching state.

addition, we were interested in gender differences and thus included (dummy-coded) gender together with its interactions with all predictor variables (except for the covariates: time and yesterday's outcome). To simplify interpretation, we report both the women's and the men's estimates instead of reporting the gender effect and interactions.

The generic person-level between-individuals (Level 2) equations were

$$\beta_{0ij} = \gamma_{00} + \gamma_{01} * \text{Gender}_{ij} + \gamma_{02} * \text{Matching's average}_{ij} + \gamma_{03} * \text{Overprovision's average}_{ij} + \gamma_{04} * \text{Underprovision's average}_{ij} + \gamma_{05} * \text{Matching's average}_{ij} * \text{Gender}_{ij} + \gamma_{06} * \text{Overprovision's average}_{ij} * \text{Gender}_{ij} + \gamma_{07} * \text{Underprovision's average}_{ij} * \text{Gender}_{ij} + u_{0ij},$$

$$\beta_{1ij} = \gamma_{10} + u_{1ij},$$

$$\beta_{2ij} = \gamma_{20} + u_{2ij},$$

$$\beta_{3ij} = \gamma_{30} + \gamma_{31} * \text{Gender}_{ij} + u_{3ij},$$

$$\beta_{4ij} = \gamma_{40} + \gamma_{41} * \text{Gender}_{ij} + u_{4ij},$$

$$\beta_{5ij} = \gamma_{50} + \gamma_{51} * \text{Gender}_{ij} + u_{5ij}.$$

Results of the hierarchical linear models regarding emotional and practical support are presented in Table 2. With emotional support, matching was associated with higher positive RF for men and women at the day and the person level, respectively. Emotional underprovision had the strongest and most consistent effects, both at the within-person and the between-persons level, especially for women. Specifically, day-level and person-level underprovision predicted lower positive RF and higher negative RF for both men and women. Among women, day-level underprovision also predicted lower positive mood and higher negative mood. Finally, person-level underprovision predicted greater negative moods for both men and women. Emotional overprovision had no significant effects.

With practical support, a gender difference regarding matching emerged: Whereas matching predicted beneficial outcomes for men, it predicted one surprising negative outcome for women. Specifically, for men, day-level and person-level matching predicted higher positive mood and RF, respectively; in contrast, day-level matching predicted women's lower positive mood. Support underprovision again had the most consistent effects, and again, especially for women. Specifically, for women, day-level underprovision predicted lower positive mood and RF and higher negative mood and RF; in addition, person-level underprovision predicted greater women's negative RF and lower positive RF. For men, person-level underprovision predicted lower positive RF and greater negative RF; day-level underprovision predicted men's higher negative RF. Overprovision had one favorable effect for men: Person-level overprovision predicted lower negative RF.

To allay a concern that the effects of support behaviors on relationship feelings are simply a byproduct of the recipient's mood and not of the examined relationship behaviors (i.e., support-matching states), we reran all models in which positive or negative RFs were the outcome, while adjusting for same-valence mood. The overall pattern of results remained the same, although for women, three of the four day-level deleterious effects of underprovision were weakened (although were still in the expected direction; $ps < .20$).

Table 2
Study 1 Summaries of Hierarchical Linear Models of Emotional and Practical Support-Matching States Predicting Moods and Relationship Feelings

	Emotional support				Practical support			
	General mood		Relationship feeling		General mood		Relationship feeling	
Variable	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
W-Int	64.63 (1.71)***	21.29 (1.73)***	69.40 (2.72)***	5.78 (1.12)***	65.00 (1.69)***	21.34 (1.78)***	69.56 (2.79)***	5.86 (1.13)***
M-Int	64.33 (1.67)***	22.84 (1.67)***	67.91 (2.68)***	7.24 (1.18)***	64.06 (1.64)***	22.72 (1.71)***	67.49 (2.76)***	7.34 (1.17)***
Day								
W-MT	−1.12 (1.25)	2.25 (1.25)	3.24 (1.26)*	−0.78 (0.83)	0.08 (1.21)	0.61 (1.25)	1.62 (1.26)	−0.18 (0.85)
M-MT	1.26 (1.43)	−0.70 (1.39)	2.84 (1.47)	−0.59 (1.19)	3.01 (1.24)*	−1.54 (1.27)	2.52 (1.37)	−0.46 (1.09)
W-UP	−7.82 (2.71)**	8.24 (2.84)**	−9.70 (3.20)**[a]	5.68 (2.31)*[a]	−7.14 (3.42)*	12.27 (3.70)**	−10.39 (3.33)**	6.82 (2.82)*[a]
M-UP	−3.28 (2.58)	4.63 (2.69)	−9.89 (3.11)**	7.12 (2.45)**	−5.16 (3.52)	5.89 (3.80)	−6.72 (3.61)	11.18 (3.23)***
W-OP	−0.48 (1.85)	2.05 (1.85)	1.60 (2.06)	−0.27 (1.11)	0.12 (1.40)	0.22 (1.38)	0.40 (1.43)	0.54 (0.96)
M-OP	0.21 (1.59)	0.08 (1.55)	−1.53 (1.84)	−0.05 (1.12)	0.04 (1.37)	1.05 (1.35)	−0.04 (1.50)	−0.68 (1.18)
Person								
W-MT	−2.67 (3.79)	5.00 (4.27)	7.45 (5.34)	0.26 (2.74)	−10.29 (4.21)*	6.66 (4.79)	−1.11 (6.14)	0.71 (3.08)
M-MT	3.67 (4.17)	−4.20 (4.61)	19.64 (5.88)**	2.32 (3.22)	0.96 (3.58)	−6.38 (4.04)	12.01 (5.26)*	1.17 (2.82)
W-UP	−18.80 (12.90)	44.44 (14.53)**	−43.37 (18.00)*	27.12 (9.34)**	−16.34 (14.22)	25.17 (16.28)	−42.72 (20.47)*	34.30 (10.47)**
M-UP	−4.20 (12.75)	28.47 (14.20)*	−43.74 (18.10)*	37.12 (9.84)***	−15.39 (14.82)	18.41 (16.91)	−59.86 (21.90)**	35.46 (11.71)**
W-OP	−2.19 (7.95)	3.97 (9.02)	−3.16 (11.22)	7.94 (5.76)	−8.02 (7.32)	−13.00 (8.40)	−17.69 (10.73)	5.01 (5.38)
M-OP	−1.30 (9.39)	2.34 (10.46)	7.61 (13.35)	−3.39 (7.25)	−6.46 (4.91)	−5.07 (5.56)	3.13 (7.41)	−13.14 (3.81)***

Note. W = women's effects; M = men's effects; Int = intercept; MT = matching; UP = underprovision; OP = overprovision. The full multilevel model also included covariates (day-in-study and lagged outcome), which are omitted for space reasons.
[a] Effects that become nonsignificant once mood is adjusted for.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

Study 1 tested the relative effects of emotional and practical support matching, underprovision, and overprovision on positive and negative moods and RFs. Our first hypothesis, that emotional support matching would have salubrious effects, received some support when it came to relational outcomes: Men's and women's positive RFs were elevated following the experience of matched emotional support. Notably, emotional support matching did not have such a positive effect on general moods. Given earlier findings (e.g., Cutrona et al., 2007), we did not expect positive effects for matched practical support. In fact, it had mixed effects—positive associations with men's positive mood and RFs, but a negative one with women's positive mood.

Our second hypothesis was that underprovision would have deleterious effects on one's moods and RFs. Indeed, our strongest and almost uniform finding was that of adverse associations for support underprovision, especially among women. We made no directional prediction regarding support overprovision. In fact, overprovision of either emotional or practical support was unrelated to most outcome variables, with one exception: For men, practical support overprovision was tied to lower negative RFs.

Thus, the most salient findings of Study 1 are the deleterious effects of support underprovision. We see two possible explanations for such effects. One explanation is that underprovided support leaves individuals unaided while facing the very stressors that prompted the desire for support. The other focuses on the relational disappointment felt when an intimate partner proves unresponsive to one's needs (Maisel & Gable, 2009; Reis, Clark, & Holmes, 2004). Study 1 could not disentangle these two explanations: It had no measures of the stressors prompting the desire for support or of the relational mechanisms through which support underprovision might lead to disappointment. This was the impetus for Study 2.

In addition, Study 2 allowed us to address two limitations of the earlier study. First, although not uncommon in experience sampling studies (Bolger, Zuckerman, & Kessler, 2000; Rafaeli et al., 2008), Study 1 relied on somewhat simplistic single-item support indices. More elaborate measures of support may prove more sensitive to within-person and between-persons variability, thus providing a richer picture. Second, the support-matching states in Study 1 were defined by the conjunction between support receipt and support seeking. The use of seeking as a proxy for support desire may be too stringent, as seeking implies both desire and some action to communicate it. We were interested in determining whether underprovision leads to adverse effects even under less stringent conditions (i.e., when it disappoints a desire, stated or not). For this reason, we chose to directly inquire about support desire in our second study.

Study 2

Beyond replicating the findings of Study 1, the key aim of Study 2 was to explore a relational mechanism through which support underprovision may exert its negative effect. To do so, we first controlled for daily stress—an alternative mechanism, which prompts participants' desire for support and which, if left unaided, may lead to greater distress and less relational satisfaction—and thus be responsible for the negative effects of underprovision (for more details, see Shrout et al., 2010). If we found that underprovision's negative effects hold even after controlling for the daily stressors that prompted the desire for support, we would have some indication that these effects are not entirely due to the lingering unabated stress. Moreover, we directly tested the prediction that underprovided support exerts some of its effect through a relational mechanism, namely perceived partner responsiveness (PPR).

Individuals perceive responsiveness when their partners understand, validate, and care for core features of their self (Reis et al., 2004). We chose to examine PPR as a possible mediator of the effects of underprovision because it has been identified as a central aspect of relationship functioning and satisfaction in general (e.g., Lemay, Clark, & Feeney, 2007) and of support processes (e.g., Maisel & Gable, 2009) in particular. Moreover, perceived responsiveness has been shown to mediate the effects of support on various outcomes (cf. Fekete, Stephens, Mickelson, & Druley, 2007; Selcuk & Ong, 2013); it therefore seems reasonable to expect that when individuals do not receive the support they desire, they would perceive their partner as unresponsive, and as a result, would have poorer moods and RFs.

Method

Participants. We recruited couples in which both partners were at least 18 years old and were in a relationship for at least 6 months. Forty-three heterosexual Israeli couples completed the initial background questionnaires and started the diary part of the study. We excluded five couples who had insufficient daily diaries (fewer than six entries). Among the remaining 76 individuals (38 couples), the mean age for men was 30.0 years ($SD = 9.7$, range = 20–65); the mean age for women was 27.8 years ($SD = 8.4$, range = 20–57). All participants in the sample had at least a high school education, with an average of 2.5 ($SD = 2.3$) years of education beyond high school. Average relationship duration was 6.9 years ($SD = 8.5$ years, range = 10 months–36 years). Among the 38 couples, 30 (79.0%) were married, and 17 (47.2%) had at least one child.

Procedure. As part of a course requirement, undergraduate students recruited couples as participants. Although offered no compensation, they were entered into a raffle (at the completion of the data collection period) for a prize worth 300 NIS. At the study's initiation, a research assistant visited the couple's home and gave each participant a personal password to log into a secure online data collection site (http://www.surveymonkey.com). After giving written consent, participants were asked to complete the questionnaires privately, and were instructed to avoid discussing their answers with their partners. Participants were requested to complete the daily diaries within 1 hr of going to bed nightly over 21 consecutive days. Diary entries were time stamped to ensure that participants completed the diaries when instructed. On average, participants completed 17.8 ($SD = 4.2$) of these daily diary entries (84.9% compliance).

Measures. The present study was part of a larger project examining daily processes in committed couples; only measures relevant to the current report are described below. The study was administered in Hebrew; all instruments were translated and back-translated to ensure consistency with the English versions.

Daily stressors. Participants were provided with a daily checklist of 19 possible stressful events not directly related to their

relationship (e.g., receiving negative feedback at school or work, feeling ill). They were asked to check each event that had occurred on that day. The daily sum of checked events indicated the level of daily stressors.

Daily emotional and practical support. Participants completed a daily support inventory, adapted from Barrera's (1986) Scale of Social Support. They were asked to indicate whether they had received any of six forms of emotional support and six forms of practical support from their partner in response to the stressors noted in the stressor checklist. The emotional support items were as follows: "Told me they cared a lot about me"; "Comforted me by showing physical affection such as a hug"; "Listened to me talk about my feelings"; "Spent time with me, or was right there with me (physically) in a stressful situation"; "Expressed confidence in my ability or praised a personal quality of mine"; "Told me that I am still a good person even when I have a problem." The practical support items were as follows: "Did something concrete and practical to help that was related to problem"; "Did something concrete and practical to help that was not directly related to problem (e.g., household chores, errands, etc.)"; "Offered facts or information to help me with my problem"; "Brainstormed with me to try to find solutions to my problem"; "Told me what I should do to solve my problem or how to deal with the situation"; "Took a stance on how I should deal with my problem." Participants also indicated whether they had desired each of these 12 forms of support.

Daily positive and negative mood. Participants' daily moods were assessed using the same measure used in Study 1. Respectively, the between-persons and within-person reliabilities were .92 and .76 for PA and .89 and .81 for NA.

Daily RFs. Participants' daily RF levels were assessed with the same measure used in Study 1. The between-persons and within-person reliabilities were .83 and .87 for positive RFs and .94 and .86 for negative RFs.

Daily PPR. Participants' daily PPR was assessed using an adapted diary version of a responsiveness measure (Maisel & Gable, 2009). They were asked to rate their agreement on a 1 (*not at all*) to 7 (*very much*) scale with three items: "My partner understood me"; "My partner made me feel like he or she valued my abilities and opinions"; "My partner made me feel cared for." These were averaged and rescaled to a 0–100 range. The between-persons and within-person reliabilities were .95 and .91, respectively.

Results

The descriptive statistics of the matching states are presented in Table 1 separately for men and women. Women had more matched support instances and fewer instances of overprovision than men, although these differences failed to reach significance (Bonferroni-corrected $\alpha < .0125$).

Effects of support matching, overprovision, and underprovision on participants' moods and RFs. In a series of analyses similar to those used in Study 1, we evaluated the associations of the different matching states with the daily outcomes. One improvement over Study 1 was that all analyses now adjusted for daily stressors as an additional covariate. A second improvement was that the support-matching states were no longer mutually exclusive. Recall that emotional or practical support receipt and desire were each indexed using six behaviors. Each support behavior could have been classified into one of the four matching states each day; thus, on any day, a participant could have had zero to six instances of matching, overprovision, underprovision, or baseline; these four scores of course had to total 6. Support providers have to provide the specific form of support desired to achieve a match. For example, to count as a match, the emotional support item "Told me they cared a lot about me" had to be both desired and received. If all six emotional support items were both desired and received, the emotional matching score would be 6 for that day (and the emotional underprovision, overprovision, and baseline scores would each be 0).

Results of the hierarchical linear models regarding emotional and practical support are presented in Table 3. With emotional support, support matching at the person level was associated with men's higher positive RF and lower negative RF. For women, day-level matching was associated with higher positive RF, although person-level matching was associated with higher negative RF.

Support underprovision had the strongest and most consistent effects, especially for women. Specifically, for women, day-level underprovision predicted lower positive mood and positive RF, as well as higher negative mood and negative RF; person-level underprovision predicted higher negative mood, as well as lower positive RF. For men, day-level underprovision predicted lower positive mood and positive RF, as well as higher negative mood; person-level underprovision predicted lower positive RF, as well as higher negative RF.

Support overprovision had mixed results. For men, day-level overprovision was associated with higher positive mood and positive RF, but person-level overprovision was associated with higher negative RF. For women, person-level overprovision was tied to higher negative RF.

With practical support, support matching had mixed results for men and unfavorable results for women. Specifically, for men, day-level support matching was associated with lower positive mood and higher negative mood; in contrast, person-level support matching was associated with lower negative RF. For women, person-level support matching was associated with higher negative mood and negative RF.

Once more, support underprovision had the strongest and most consistent effects, especially for women. Specifically, for women, day-level underprovision was associated with lower positive mood and RF, as well as with higher negative mood and RF; person-level underprovision was associated with lower positive mood as well as higher negative mood and negative RF. For men, day-level underprovision was tied to lower positive mood and higher negative mood.

Support overprovision again had mixed results; specifically, person-level overprovision was associated with men's higher positive RF, but also with women's higher negative mood. No effects were found with day-level overprovision.

As in Study 1, we reran all models in which positive or negative RF was the outcome, while adjusting for same-valence mood. The overall pattern of results remained the same with the following exceptions: For women, one of the four day-level deleterious effects of underprovision was weakened ($p = .07$); for men, the

Table 3
Study 2 Summaries of Hierarchical Linear Models of Emotional and Practical Support-Matching States Predicting Moods and Relationship Feelings

	Emotional support				Practical support			
	General mood		Relationship feeling		General mood		Relationship feeling	
Variable	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
W-Int	74.25 (1.51)***	17.89 (1.24)***	68.87 (2.16)***	5.38 (0.92)***	74.35 (1.50)***	17.78 (1.23)***	69.07 (2.34)***	5.44 (0.97)***
M-Int	76.86 (1.44)***	16.15 (1.13)***	71.19 (2.13)***	6.01 (1.01)***	76.64 (1.44)***	16.47 (1.14)***	70.69 (2.31)***	6.06 (1.06)***
Day								
W-MT	0.53 (0.59)	0.21 (0.52)	1.09 (0.52)*	−0.26 (0.48)	0.05 (0.49)	0.89 (0.63)	0.90 (0.59)	0.01 (0.41)
M-MT	0.60 (0.60)	−0.22 (0.48)	0.76 (0.56)	−0.39 (0.57)	−0.87 (0.42)*	1.39 (0.61)*	−0.86 (0.59)	−0.20 (0.45)
W-UP	−3.48 (1.07)**	4.85 (1.22)***	−5.51 (1.18)***	3.92 (1.24)**	−3.39 (0.95)***	3.09 (1.02)**	−4.37 (1.03)***	3.02 (1.17)*[a]
M-UP	−3.10 (1.09)**	3.38 (1.22)**	−3.11 (1.26)*	1.32 (1.35)	−3.12 (1.09)**	2.70 (1.15)*	−1.58 (1.25)	2.31 (1.38)
W-OP	0.76 (0.66)	−0.44 (0.62)	−0.42 (0.75)	−0.45 (0.48)	−0.52 (0.65)	1.23 (0.63)	0.34 (0.69)	0.62 (0.55)
M-OP	1.12 (0.51)*	−0.80 (0.44)	1.33 (0.64)*[a]	−0.86 (0.47)	0.27 (0.45)	−0.18 (0.40)	−0.06 (0.50)	−0.46 (0.46)
Person								
W-MT	0.09 (1.31)	1.92 (1.28)	1.10 (1.78)	3.62 (0.99)***	−1.40 (1.67)	5.58 (1.66)**	−2.08 (2.25)	4.18 (1.35)**
M-MT	1.71 (1.20)	−0.76 (1.12)	4.01 (1.69)*	−2.33 (1.04)*	1.73 (1.31)	−0.50 (1.26)	1.13 (1.82)	−2.54 (1.22)*
W-UP	−2.96 (2.92)	8.18 (2.77)**	−9.45 (3.98)*	3.80 (2.12)	−8.07 (3.40)*	7.74 (3.39)*	−6.93 (4.64)	6.45 (2.76)*
M-UP	−2.83 (2.89)	3.54 (2.68)	−11.48 (3.99)**	6.06 (2.50)*	−2.38 (3.32)	1.90 (3.23)	−5.86 (4.43)	6.13 (3.28)
W-OP	1.42 (1.97)	2.16 (1.88)	−0.19 (2.68)	3.26 (1.45)*	1.38 (1.83)	3.65 (1.82)*	−0.01 (2.49)	2.57 (1.48)
M-OP	1.41 (1.44)	1.08 (1.31)	1.58 (2.05)	2.67 (1.20)*	2.32 (1.42)	−1.18 (1.34)	5.35 (2.00)**	2.41 (1.27)

Note. W = women's effects; M = men's effects; Int = intercept; MT = matching; UP = underprovision; OP = overprovision. The full multilevel model also included covariates (daily stress, day-in-study, and lagged outcome), which are omitted for space reasons.
[a]Effects that become nonsignificant once mood is adjusted for.
* $p < .05$. ** $p < .01$. *** $p < .001$.

positive effect of emotional overprovision on positive RF became nonsignificant.

PPR: A mediator between underprovision and affective/relational outcomes. Next, we tested whether PPR mediated the adverse effects of support underprovision on moods and RFs. To assess day-level mediation, we used MacKinnon, Lockwood, and Williams' (2004) Monte Carlo method as suggested by Bauer, Preacher, and Gill (2006) for assessing multilevel mediation with Level 1 predictor/mediator/outcome variables. To assess person-level mediation, we used bootstrapping as suggested by Ledermann, Macho, and Kenny (2011) for assessing mediation with dyadic data. In both methods, we used confidence intervals of the indirect effects to determine statistical significance. Results with emotional and practical underprovision are presented in Table 4.

With emotional underprovision we found substantial support for our mediational hypothesis, although more at the day than at the person level. At the day level, PPR mediated all three adverse associations for men and all four adverse associations for women (although only with partial mediation of women's negative mood or RF). At the person level, PPR mediated the association between underprovision and positive RF for men only. With practical underprovision, we again found substantial support for our mediational hypothesis, although only at the day level. PPR mediated the two adverse associations for men and all four adverse associations for women. The mediation was partial, with the exception of men's negative mood.

Discussion

Study 2 replicated most of Study 1's results and extended them in four ways. It used a more elaborate measure of support behaviors, allowing us to capture day- and person-level variations in the matching states more sensitively than we could with the dichotomous measure in Study 1. It used a less stringent item to assess support desire (rather than support seeking). It adjusted for daily levels of stressors in all analyses, thus helping rule out the possibility that the negative effects of support underprovision are solely attributable to the fact that the individuals are left unaided with the stressors that they face. Finally, it directly tested a relational mediator that possibly accounts for the deleterious effects of underprovision on moods and RFs.

Our first hypothesis, that matched emotional support would have beneficial effects on a person's daily RFs, was mostly affirmed. Interestingly, person-level emotional support matching also predicted higher levels of negative RF for women. For matched practical support, we did not expect consistent beneficial effects, and indeed did not find any. Our second hypothesis, that both emotional and practical support underprovision will be associated with adverse outcomes, especially for women, received consistent support across the various daily outcomes. Importantly, these adverse effects emerged even when controlling for the daily stressors that prompted the desire for support. Our third prediction involved overprovision, for which we expected no consist association with participants' daily outcomes. Indeed, for both men and women, and with both emotional and practical support, overprovision was associated with mixed positive and negative effects. Finally, mediational analyses showed that underprovision substantially exerted its deleterious effects through low PPR.

General Discussion

Our work revisits the optimal matching model of support (Cutrona, 1990; Cutrona & Russell, 1990), which postulates that support is effective when it matches the needs of the recipient. We

Table 4
Study 2 Summaries of Mediational Analyses for Emotional and Practical Support Underprovision

	Positive mood		Negative mood		Positive relationship feelings		Negative relationship feelings	
Analysis	Men	Women	Men	Women	Men	Women	Men	Women
				Emotional support				
Day								
a (X→M)	−6.20 (1.94)**	−7.01 (1.73)***	−5.86 (1.94)**	−6.69 (1.74)***	−6.38 (1.95)**	−6.90 (1.74)***		−6.72 (1.73)***
b (M→Y)	0.33 (0.05)***	0.36 (0.04)***	−0.34 (0.05)***	−0.38 (0.05)***	0.68 (0.05)***	0.67 (0.05)***		−0.27 (0.05)***
c′ (X→Y)	−2.04 (1.05)	−1.66 (0.93)	1.89 (0.96)	1.91 (0.83)*	−0.75 (1.10)	−1.70 (0.97)		1.81 (0.68)*
IE [CI]	[−3.83, −0.75]	[−4.24, −1.21]	[0.41, 3.51]	[0.92, 4.00]	[−7.49, −1.88]	[−7.58, −2.48]		[0.30, 3.03]
Person								
a (X→M)				−7.55 (4.43)†	−9.55 (3.88)*	−7.55 (4.43)†	−9.55 (3.88)*	
b (M→Y)				−0.018 (0.08)*	0.71 (0.11)***	0.70 (0.11)***	−0.28 (0.09)**	
c′ (X→Y)				5.28 (2.64)*	−4.17 (2.99)	−2.39 (3.46)	2.12 (2.57)	
IE [CI]				[−0.12, 5.51]	[−24.65, −1.62]	[−15.42, 1.08]	[−0.072, 15.48]	
				Practical support				
Day								
a (X→M)	−3.06 (1.65)†	−4.40 (1.52)**	−3.29 (1.72)†	−4.50 (1.59)**		−4.55 (1.60)**		−3.99 (1.52)*
b (M→Y)	0.33 (0.03)***	0.33 (0.03)***	−0.36 (0.05)***	−0.38 (0.05)***		0.67 (0.05)***		−0.33 (0.03)***
c′ (X→Y)	−2.47 (1.00)*	−3.14 (0.93)**	1.73 (0.89)	2.16 (0.86)*		−2.43 (0.93)*		1.76 (0.79)*
IE [CI]	[−2.38, −0.12]	[−2.77, −0.63]	[0.16, 3.00]	[0.68, 3.53]		[−5.25, −0.87]		[0.47, 2.72]
Person								
a (X→M)	−4.98 (3.98)	−3.20 (6.37)	−4.98 (3.98)	−3.20 (6.37)	−4.98 (3.98)		−4.98 (3.98)	−3.20 (6.37)
b (M→Y)	0.22 (0.09)*	0.22 (0.09)*	−0.20 (0.78)*	−0.23 (0.09)**	0.71 (0.10)***		−0.27 (0.09)***	−0.13 (0.06)***
c′ (X→Y)	−3.85 (2.46)	−5.63 (3.61)	5.71 (2.23)*	2.79 (3.90)	−5.52 (2.86)†		4.64 (2.45)†	3.98 (2.61)
IE [CI]	[−32.80, 0.91]	[−24.22, 4.93]	−32.80, 0.91	[−24.22, 4.94]	[−23.69, 0.72]		[−0.17, 13.79]	[−0.47, 3.42]

Note. X = predictor (underprovision); M = mediator (perceived partner responsiveness); Y = outcome (mood or relationship feeling); IE = indirect effect; CI = confidence interval. Mediation analyses were conducted only for associations found significant in the full multilevel model (see Table 3).
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

examined this state of optimal matching, along with two states of support mismatches: underprovision and overprovision. We did this within a QSD framework, which allowed us to simultaneously examine the effects of these three states relative to the "baseline" state of no support and no desire for it. With this framework, we demonstrated that when support does materialize, it may bring some (but only limited) benefits. In other words, the receipt of matched support does not move us far from baseline. In contrast, when desired support fails to materialize, our moods and our relationships suffer. We argue (and in Study 2, show) that this occurs at least in part through a relational process—namely, low PPR.

Our first prediction, that emotional support matching will be associated with more favorable daily outcomes, was partially supported. In both studies, emotional support matching was associated with favorable relationship feelings. Notably, no such associations were found with participants' general moods. Finally, contrary to our prediction, person-level emotional support matching in Study 2 was also associated with higher levels of negative RFs among women.

These results suggest that on days when the need for emotional support is met, both men and women experience somewhat better relationship outcomes. This is consistent with lab observational results (Cutrona et al., 2007) and provides ecological validity to the idea of a general benefit stemming from emotional support matching. At the same time, the habitual receipt of emotional support (even when there is a wish for it) does not appear to have such favorable effect, and may even have negative consequences for women's RFs.

In line with earlier findings by Cutrona et al. (2007), we did not expect practical support matching to be associated with any consistent favorable outcomes. Indeed, both studies yielded mixed effects for this type of matching. This divergence between emotional and practical support matching may reflect the fact that emotional support (matched or not) is often found to be more beneficial than practical support (e.g., Chen & Feeley, 2012; Reinhardt et al., 2006). It may be that practical support carries a greater risk of exacting emotional tolls on its recipients by emphasizing their inability to accomplish daily tasks independently (e.g., Reinhardt et al., 2006). Consistent with Cutrona et al., our findings go one step further in showing that even when support matches the recipient's desire, emotional support seems to trump practical support.

Our second prediction, that both emotional and practical support underprovision will have adverse effects on moods and RFs, received substantial and clear support. Such effects are in line with earlier studies (e.g., Siewert et al., 2011). However, in the present work, we were able to go beyond these earlier findings in an important way by demonstrating that relational processes, and not simply unabated stress, partially account for these adverse associations of underprovision.

A consistent gender difference emerged in both studies: Underprovision was associated more strongly with unfavorable outcomes among women. This gender difference is in line with the broader support literature; for example, although women do not necessarily receive less support from their partners (e.g., Verhofstadt, Buysse, & Ickes, 2007), they tend to be less satisfied with the support they receive (e.g., Cutrona, 1996), tend to be more sensitive to aspects of supportive interactions, and tend to respond more strongly to them (cf., Burleson & Hanasono, 2010). Similarly, although we found no gender differences in the rates of the support-matching states (and in particular, of underprovision), women were more sensitive to underprovision.

Out third prediction addressed support overprovision. The effects of this form of mismatch on subjects' daily outcomes were mixed. In Study 1, overprovision had minimal association with subjects' daily outcomes; in Study 2, which used a more sensitive measure of daily support behaviors, overprovision had both favorable and unfavorable associations. This pattern echoes conflicting findings in the literature regarding support overprovision (as unfavorable: Brock & Lawrence, 2009; Reynolds & Perrin, 2004; as favorable: Siewert et al., 2011). Future work is needed to clarify the role of overprovision.

Recall that these results were obtained using the QSD method, in which the outcomes associated with each matching state can be thought of as reflecting a change from the baseline state (of no receipt and no desire for it). Our key findings were that the change from baseline to underprovision was consistently negative; in contrast, the change from baseline to optimal emotional matching tended to be positive, but was restricted to relational outcomes while affective outcomes remained unchanged.

Thought of in this manner, the (negative) influence of the most aversive matching state—support underprovision—was stronger than the (positive) influence of the most optimal state—emotional support matching. This is consistent with extensive empirical work that reveals that "bad is stronger than good" in various domains, that is, that negative stimuli exert stronger effects on a wider range of outcomes (including relational ones) than do positive stimuli (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). It is also consistent with earlier work from our lab that provided evidence that this phenomenon occurs, specifically, within the context of dyadic support. One study (Rafaeli et al., 2008) showed hindrance (bad) to trump support (good). Another study (Bar-Kalifa & Rafaeli, 2013) showed nonmonotonic effects for emotional support, with low-level support exerting stronger effects than high-level support.

The present work goes beyond these earlier studies by defining *bad* and *good* through the conjunction of desire and receipt. By creating such a dyadic baseline point for comparison, we were then able to employ a QSD framework, and to compare one "good" state—optimal matching—with two supposedly "bad" unmatched states, and to show that once again, bad (underprovided support) trumps good (matched support).

Our interpretation of these findings is in line with recent work by Gable, Gosnell, Maisel, and Strachman (2012, particularly their Study 2). These authors found unresponsive support following the disclosure of negative events to have considerable detrimental consequences for both affective and relational outcomes. Importantly, they also found that responsive support did better with relational outcomes but remained relatively weak when it came to affective outcomes. Our findings (as well as those of Gable et al.) can also be understood from the perspective of social baseline theory (Beckes & Coan, 2011), a model that suggests that the presence and availability of close others are, in true psychological sense, our baseline. Consistent with this model, deviations from baseline occur mostly in instances of deprivation, isolation, or (in our case) disappointment.

Limitations and Future Directions

In social support research, in which the general perception and the actual occurrence of support yield different and sometimes contradictory results (cf. Rafaeli & Gleason, 2009), the use of ecologically valid methods (like those employed in this work) has several benefits. First, it allows us to look at support at multiple levels—both as a personal characteristic and as a day-level event. Relatedly, it gets closer to actual experience by eschewing retrospective reports (Bolger, Davis, & Rafaeli, 2003). However, diary methods still rely on self-reports; as such, they remain, in some sense, measures of perception.

We chose to focus on the recipient's perception of their own need and of the support they received (or failed to receive), which allowed us to draw conclusions on one aspect of matching—namely, the matching between these subjective experiences within the recipient. An equally interesting question for future research would marry our question (of matching states) with the fact that the recipient and the provider would not necessarily agree, even about "objective" supportive transactions (Gable et al., 2003). Specifically, it would be interesting to examine the conjunction between providers' reports of support and recipients' reports of their needs (or possibly even the providers' estimation of the recipients' needs).

Our results do not allow us to infer a causal association between matching states and changes in moods and RFs. Other negative factors (e.g., conflict) may divert individuals' attention away from their partners' efforts to provide them the support they desire, and simultaneously account for negative changes in their affective or relational outcomes. In addition, effects between moods or feelings and support may very well be bidirectional. For example, mood may carry over and affect subsequent desire for and perceptions of support received. Future research examining these more complex dynamics is certainly called for. Still, one of the strengths of the intensive repeated measures method used here is that it allowed us to adjust for the outcome level on the previous day, as we did in all of our models. This way, we could at least minimize the concern regarding reverse causation (i.e., that changes in daily affective and relational outcomes cause the matching states).

Our main finding of an adverse effect for underprovision was based on relatively few data points given that underprovision was reported least frequent by participants. However, this rate seems to accurately represent the phenomenon and is in line with previous work (e.g., Rafaeli et al., 2008) showing that negative relational processes are far less common than positive ones, even when their effect is larger. Future studies using longer diary periods may help capture more instances of underprovision; alternatively, studies focusing on distressed couples who are more prone to disappoint each other may help identify more experiences of underprovision. However, the consistent pattern of results across the two samples, and the use of repeated measures with these samples, increases our confidence in the results.

In Study 2, we identified low PPR as a relational mechanism through which support underprovision exerts a considerable part of its deleterious effect. However, low PPR played less of a mediating role in the person-level associations between underprovision and adverse outcomes. Future work should try to capture characteristics of the involved persons or dyads that may serve as person-level mediators of the effect.

The current studies used both positive and negative outcome measures, tapping both general moods and specific feelings within one's relationship. General moods and RFs are meaningful outcomes in their own right, as previous work by us and others (e.g., Gadassi et al., 2011; Thompson & Bolger, 1999) has demonstrated; moreover, in the current studies, we demonstrated that the effects of support-matching states on one set of outcomes (RFs) are largely intact even when the other set (moods) is adjusted for.

Still, all of these outcomes were emotional in nature. To the extent that support (both emotional and practical) is thought to affect emotional outcomes, this choice seems appropriate. However, additional outcomes, focused more on performance than on subjective feelings, and more on the long term than on the short term, might prove relevant for examining the effects of both emotion-focused and problem-focused support, which may differ. For example, practical support matching, although not associated with favorable emotional or relational outcomes, may be beneficial in actually handling stressful problems. Similarly, even the most emotionally frustrating mismatched state—support underprovision—may, under certain circumstances, be positive in the long term; it may foster attempts to try to handle the problem by oneself, thus developing a greater sense of autonomy.

The current studies are based on samples that are moderate in size (88 and 76 individuals, respectively). Still, the repeated measures obtained from each participant over 21 days increase the studies' power. Moreover, an additional strength of these two samples is that they were recruited from two different cultures (United States and Israel), yet yielded the same pattern of results. Future work may need to test whether such results can be generalized to other cultures, as we know that support processes operate differently in Western and non-Western cultures (see Burleson & Hanasono, 2010).

Summary

Our studies used QSD analyses to compare the associations of matched, overprovided, and underprovided support, either emotional or practical, with those of a baseline state of no support receipt and no desire for it. It is the first study to do so within the context of romantic relationships and with reliance on ecologically valid daily diary methods. Its results contribute to the literature on the optimal matching model (Cutrona, 1990; Cutrona & Russell, 1990). Specifically, they show that matched and nonmatched support should be examined in comparison to a baseline reference point. Doing so demonstrates that although the receipt of desired support may not be associated with improved outcomes, the lack of such receipt (i.e., the disappointing state of being underprovided) is consistently associated with unfavorable changes from such baseline. In other words, these findings are consistent with the general asymmetrical phenomenon of "bad being stronger than good" (underprovided support exerting more of an effect than matched support). Finally, the current work extends our understanding of the mechanism of underprovision, and is the first to suggest that the unfavorable effects of underprovision are, to a considerable extent, mediated by a relational factor, PPR, and not simply by the unabating stressors.

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