

Research Article

HE SAID, SHE SAID: A Quasi-Signal Detection Analysis of Daily Interactions Between Close Relationship Partners

Shelly L. Gable,¹ Harry T. Reis,² and Geraldine Downey³

¹University of California, Los Angeles; ²University of Rochester; and ³Columbia University

Abstract—In everyday life, close relationship partners enact behaviors through which they may influence each other. To understand how these exchanges affect partners, previous research has emphasized the enactors' reports, the receivers' perceptions, or the congruence of the two. We developed a strategy based on classic signal detection theory that combined elements from these three approaches in a naturalistic daily experience study. Members of 58 heterosexual dating couples reported daily on their own behaviors and their perceptions of their partners' behaviors. Results showed that an enactor's beliefs about his or her behavior and the perceiver's interpretation combined to affect daily mood and relationship satisfaction. However, different patterns of results emerged for positive and negative behaviors, such that the enactor's perspective accounted for independent effects of negative behaviors. Results show the value of simultaneously considering the perspective of both parties in social interaction.

In the course of everyday life together, close relationship partners enact many behaviors through which they may influence each other. Often partners do not agree about these events, as numerous studies of relationship attributions, motivated information processing, expectancy effects, and social cognition have shown (e.g., Bradbury & Fincham, 1992; Downey, Freitas, Michaelis, & Khouri, 1998; McGregor & Holmes, 1999; Ross & Sicoly, 1979). Behavior intended to be warm and affectionate may be appreciated as such by one's partner. Sometimes, however, a partner may seem not to notice an affectionate act, leaving the enactor wondering whether it had its intended positive impact. At other times, a perceiver may feel that a partner has been testy or disinterested, even though the partner had no such intent and is unaware of such behavior. Are these moments as influential as those when the enactor is aware of behaving negatively? In the research described here, we examined the consequences of close relationship partners' perceptions (or misperceptions) of their own behavior and their partner's behavior in the context of everyday interaction. Building on literature that highlights potential gaps between actors' and perceivers' perceptions, we asked whether the impact of one partner's actions depends on the other partner's recognition of those actions. And does the impact of an action perceived depend on the enactor's intent?

These questions are fundamental to understanding the role of social interaction in close relationships. For many relationship scholars, social interaction is the essential subject matter of relationships (e.g., Hinde, 1995; Kelley, 1983; Reis, Collins, & Berscheid, 2000). Patterns of interaction depend on the actions and reactions of both partners, and their actions and reactions depend on each individual's perceptions and interpretations of the other's behavior. Therefore, questions about the enactment, recognition, and consequences of a partner's behavior underlie the analysis of interaction in ongoing relationships.

Given their centrality, it is not surprising that questions of this sort have received considerable attention. In general, existing research fits one of three broad orientations. Some studies give priority to the objective properties of interaction. These studies include those that rely on behavioral observation, in which trained observers code predefined behaviors from videotaped laboratory interactions (see Gottman & Notarius, 2000, for a review). The major advantage of this approach is its emphasis on objectively verified behavior; one disadvantage is the fact that impartial observers rarely have access to the conversants' private, often idiosyncratic cognitions and emotions, and these thoughts and feelings typically play a major role in shaping subsequent behavior (e.g., Bradbury & Fincham, 1992).

A second approach to the study of interaction within relationships emphasizes the participants' unique perceptions and interpretations. Specific thoughts and feelings reflect subjective processing of the events in question, and are shaped by cognitive and motivational processes (e.g., dispositions, goals, and beliefs; Baldwin, 1992; Berscheid, 1994). Thus, it is not so much the actual interchange that matters but rather what participants make of that interchange. The elegant studies by Murray, Holmes, and their colleagues demonstrating how faults may be transformed into virtues in order to bolster personal security in a relationship exemplify this approach (e.g., Murray & Holmes, 1993). Nevertheless, for researchers (and practitioners), such studies may raise as many questions as they solve, inasmuch as these motivated transformations often engender divergent reports of the same event.

The third orientation emphasizes the degree of congruence between the message enacted by the communicator and the message perceived by the target. For example, researchers have investigated people's ability to accurately infer emotions, intentions, and thoughts from verbal and nonverbal cues. Much of this work has focused on individual differences (e.g., personality, gender) or contextual factors correlated with accuracy (e.g., Ambady, Hallahan, & Rosenthal, 1995; Sabatelli, Buck, & Dreyer, 1982). Ickes (1993) has investigated empathic accuracy by directly comparing each partner's inferences about the other's thoughts or feelings with the actual thoughts and feelings reported by the actor for that exact moment. This type of research is typically conducted in controlled laboratory settings that differ from the natural context of everyday social interaction (although Bolger, Zuckerman, & Kessler, 2000, examined daily agreement and disagreement in dating partners' perceptions of social support). Nonetheless, the extensive controls common in lab settings may affect the processes under investigation for numerous reasons (Reis, 1994). For example, Lieberman and Rosenthal (2001) demonstrated that introverts and extraverts do not differ when given the single goal of accurately assessing social information (as is done in most lab protocols); however, given multiple goals on the same task (a situation that better resembles actual social life), extraverts read social cues more accurately than introverts. Another example is Margolin, Burman, and John's (1989) finding that marital conflicts are more negative and last longer at home than in the laboratory.

Address correspondence to Shelly L. Gable, UCLA Psychology Department, 4560 Franz Hall, Los Angeles, CA 90095; e-mail: gable@psych.ucla.edu.

THE PRESENT RESEARCH

In this study, we developed a strategy combining elements from all three orientations with a naturalistic methodology. Although laboratory behavioral observation has important advantages, the interactions observed tend to be brief (rarely exceeding 15 min) and may be affected by context variance. We employed an everyday-experience method, in which partners reported on their own and their partners' behaviors, as those behaviors occurred naturally in the ebb and flow of spontaneous, ordinary interaction. Among other benefits, daily experience methods provide a more accurate window on ongoing subjective experience than do summary self-reports and retrospections, while simultaneously capitalizing on the ecological validity of observing behavior in its natural context (Reis & Gable, 2000; Stone, Shiffman, & DeVries, 1999). Although these methods have been used frequently to examine the behavior of individuals (see Reis & Gable, 2000, for an overview), only rarely have they been used to study interactions between partners.

Early attempts to use spouses as observers of each other's behavior suggested that spouses may interpret even simple events differently. For example, research with the Spouse Observation Checklist (Wills, Weiss, & Patterson, 1974), which asks spouses to report daily whether they and their partner performed various concrete behaviors (e.g., "we held each other" and "we gardened together"), tended to find levels of "accuracy"—that is, agreement about whether or not that event occurred on that day—roughly between 35% and 65%, leading Christensen and Nies (1980) to conclude that spouses cannot reliably observe their own or their partner's behavior. Rather than dismissing such discrepancies, however, we saw them as an opportunity to extend previous research on (in)accuracy in social perception by examining the relative impact of congruence and divergence in partners' perceptions of their daily interaction.

To do so, we adapted our approach from signal detection theory (e.g., Green & Swets, 1966). We refer to our method as a *quasi-signal detection* paradigm, because, unlike in the classic method, neither the frequency nor the strength of the stimulus was experimentally controlled. Thus, traditional signal detection indices, such as thresholds and d' , could not be meaningfully calculated. However, a quasi-signal detection analysis allowed us to examine the extent to which partners agreed or disagreed that one of them enacted a certain behavior on a given day, as well as the consequences of agreement and disagreement.

For example, consider that a wife may report that her husband did X, and he may or may not agree that he did X.¹ Similarly, she may report having done Y, but he may or may not have noticed that behavior. If an individual's reports of his or her own behavior are considered as "action" and the partner's reports of that same behavior as "detection," then there are two ways for partners to agree and two ways for them to disagree (see Fig. 1). On the one hand, both partners may report that one of them enacted a particular behavior on a particular day (e.g., both may report that the wife told her husband that she loved him). Following signal detection terminology, we call this a hit. They may also agree that this behavior did not occur on that day (i.e., neither reports that the wife told her husband that she loved him), and we call this a correct rejection. On the other hand, she may report having told her husband that she loved him, but if he did not notice this behavior, it is a miss. And if she reports not enacting this behavior, but he nonetheless reports that she did, it is a false alarm.

1. We refer to a female enactor and a male recipient solely for clarity. Of course, these examples apply to enactors and recipients of either sex.

		Action	
		"I told my husband that I loved him today"	
		I did it	I didn't do it
Detection "My wife told me that she loved me today"	She did it	Hit	False Alarm
	She didn't do it	Miss	Correct Rejection

Fig. 1. Application of the quasi-signal detection paradigm to an interaction between a married couple.

We employed this paradigm to examine close relationship partners' daily interactions with each other over 4 weeks. We had two sets of hypotheses. First, we predicted that for positive behaviors, hits and false alarms would be more common than misses and correct rejections because people tend to both enact and expect positive behaviors. And we expected that correct rejections would be more common for negative behaviors than for positive behaviors, as partners are less likely to enact and expect negative behaviors (Gable & Reis, 2001). Second, we tested hypotheses about the impact of enacted and perceived behaviors derived from the three research orientations we described earlier. If the enacted behavior takes precedence, regardless of the partner's explicit perception of that action, hits and misses should have greater influence than false alarms on the recipient's mood and satisfaction. If, however, the partner's perception of the behavior in question is more critical, then hits and false alarms should have greater influence on mood and satisfaction than misses do. Finally, if congruence is what matters, then hits should affect daily mood and satisfaction, and false alarms and misses should have little or no impact.

METHOD

Participants and Procedure

Participants were 58 heterosexual dating couples (116 individuals), recruited at Columbia University, who had been in a committed relationship for at least 6 months ($M = 18.6$ months). Average age was 22 for men, 21 for women. These data were collected as part of a larger study described in more detail by Downey et al. (1998).

Each partner was mailed four packets, each containing seven daily records. Questions about mood and relationship well-being were listed on one side of the record, and interaction behaviors on the reverse. Participants were asked to complete one record each day, and to return the packet of completed forms at the end of each week. They were instructed to fill out their forms independently and to refrain from discussing their responses until completion of the study. Couples were paid \$50 at the conclusion of the study. Participants completed be-

Daily Interactions and Signal Detection

tween 14 and 28 days of records, with 90% of the sample completing more than 20 records. Because we wanted to compare partners' reports of the same day, we analyzed only days on which both partners completed the daily record. Across the couples, the number of days that met this criterion ranged from 12 to 28, with an average of 25.5.

Measures

Mood

Mood was assessed with 13 adjectives. Participants indicated the extent to which they had experienced each mood during the past 24 hr, on a scale from 0 (*not at all*) to 3 (*a lot*). Four items assessed positive mood: happy, pleased, satisfied, and content.² Nine items assessed negative mood: worried, self-critical, anxious, calm (reverse-scored), sad, ashamed, angry, enraged, and depressed. Daily scores were computed for each person by averaging items on each subscale. The mean positive mood was 2.00 ($SD = 0.48$) for men and 2.00 ($SD = 0.52$) for women. The mean negative mood was 0.69 ($SD = 0.36$) for men and 0.82 ($SD = 0.42$) for women. Matched-pairs t tests indicated no sex difference on positive mood, $t(57) < 1$, n.s., but women reported significantly higher negative mood than their male partners, $t(57) = 2.33$, $p < .05$.

Relationship well-being

Daily relationship well-being (RWB) was assessed by the question, "Overall, how would you describe your relationship today?" Participants circled one of seven responses ("Terrific," "Very Good," "Good," "So-so," "Bad," "Very Bad," or "Terrible"), which we coded with values from 1 (*terrible*) to 7 (*terrific*). The mean RWB was 5.68 ($SD = 0.72$) for men and 5.66 for women ($SD = 0.73$). A matched-pairs t test revealed no sex difference, $t(57) < 1$, n.s.

Daily interactions

Participants reported whether or not they had enacted a given behavior toward their partner on that day, and with a parallel item, whether their partner had enacted the same behavior toward them. The 10 behaviors used in this research represented three categories: positive, negative, and supportive. The positive-behavior subscale contained four item pairs ("I tried to make my partner feel wanted—My partner made me feel wanted," "I was physically affectionate toward my partner—My partner was physically affectionate toward me," "I did something special for my partner—My partner did something special for me," and "I told my partner I loved him/her—My partner told me that he/she loved me"). The negative-behavior subscale also contained four item pairs ("I criticized something my partner said or did—My partner criticized something I said or did," "I was inattentive and unresponsive toward my partner—My partner was inattentive and unresponsive to me," "I thought about ending the relationship—My partner's behavior made me question his/her commitment to me," and "I saw or spoke to someone who makes my partner jealous—My partner saw or spoke to someone who makes me jealous"). The supportive

subscale included two item pairs ("I listened to my partner's concerns about a problem—My partner listened to my concerns about a problem" and "I helped my partner with a practical problem—My partner helped me with a practical problem"). Participants indicated a behavior's occurrence by checking a box next to the item.³

RESULTS

Rates of Agreement and Frequency of Events

The average daily number and rate of hits, misses, correct rejections, and false alarms in each behavior category is shown in Table 1. The percentages of accurate detections (hits and correct rejections) were virtually identical for men and women, and overall were far greater than chance levels. Accuracy rates varied by category. Participants agreed with their spouses on 77% of positive behaviors (i.e., the number of hits and correct rejections divided by the number of behaviors in the category), on 89% of negative behaviors, and on 73% of supportive behaviors. Table 1 also shows that participants reported enacting (hits plus misses) and observing (hits plus false alarms) positive events more often than negative events.

Covariation Between Partners' Interactions and Daily Outcomes

We examined daily covariation between outcomes and behavior using multilevel modeling (Bryk & Raudenbush, 1992). We used a three-level model, in which days were nested within persons and persons were nested within couples. This analysis simultaneously controls for dependencies in the same person's reports across days and between spouses. Each person's outcomes (RWB, positive and negative mood) were predicted from daily hits (HIT), false alarms (FALSE), and misses (MISS), tabulated as follows. For each day, each behavior was assigned to one of the four signal detection categories shown in Figure 1, based on the conjunction of both partners' reports. These four categories were represented by three dummy variables, one each indicating whether on that day the item was a hit (or not), false alarm (or not), or miss (or not). As in all dummy-variable analyses, the fourth category, correct rejections, received no explicit code, because it was redundant with the combination of the other three codes. However, in dummy-variable analysis, simultaneous inclusion of all $k - 1$ dummy codes turns each variable into a contrast between that code and the category receiving no explicit code, which is called the reference category. Thus, when analyzed together, each of the three dummy-coded variables represents the contrast between the coded category (i.e., hits, false alarms, or misses) and correct rejections. These codes were summed across items constituting the three interaction subscales (positive, negative, and supportive). Additionally, to rule out serial dependency, we controlled for the previous day's outcome (e.g., in predicting today's positive mood, yesterday's positive mood was partialled). The generic day-level (Level 1) equation was

$$\text{OUTCOME}_{ij} = p_{0jk} + p_{1jk}(\text{HIT}_{ijk}) + p_{2jk}(\text{FALSE}_{ijk}) + p_{3jk}(\text{MISS}_{ijk}) + p_{4jk}(\text{yesterday's outcome}_{ijk}) + e_{ijk}$$

2. In fact, because of a typographical error, "happy" appeared twice on the mood-adjective list, so that the list included five positive-mood items. Because scale alphas were very similar when responses to either or both instances of "happy" were included, we retained both in our analyses.

3. Participants also reported on three other behaviors not relevant to the focus of this article.

Table 1. Average daily number of hits, misses, false alarms, and correct rejections

Event type	Men			Women		
	<i>M</i>	<i>SD</i>	Percentage within behavior category	<i>M</i>	<i>SD</i>	Percentage within behavior category
Positive items (<i>n</i> = 4)						
Hits	2.01	0.77	50	2.00	0.79	50
False alarms	0.48	0.39	12	0.49	0.39	12
Misses	0.42	0.35	11	0.42	0.39	11
Correct rejections	1.09	0.64	27	1.09	0.63	27
Negative items (<i>n</i> = 4)						
Hits	0.13	0.16	3	0.11	0.13	3
False alarms	0.17	0.17	4	0.25	0.24	6
Misses	0.24	0.25	6	0.16	0.15	4
Correct rejections	3.45	0.43	86	3.48	0.38	87
Supportive items (<i>n</i> = 2)						
Hits	0.24	0.36	12	0.29	0.36	14
False alarms	0.27	0.25	14	0.32	0.22	16
Misses	0.22	0.19	11	0.24	0.23	12
Correct rejections	1.26	0.42	63	1.15	0.42	58

Note. There were no significant differences between men and women in average number of hits, misses, false alarms, and correct rejections.

Each Level 1 predictor was centered around the individual's mean, so effects could be interpreted as changes in outcome associated with variations from the person's average report. Thus, the analyses were entirely within persons and within couples, controlling for individual and couple differences. Each coefficient in the Level 1 equation had a corresponding component in the person-level (Level 2) model, such that *b* represents the average slope for that behavior category across persons within couples. We also tested Level 1 coefficients for gender differences (except the coefficient for yesterday's outcome) by adding a Level 2 coefficient representing gender (0 = male, 1 = female). Slopes were treated as random at Level 2. The corresponding Level 2 equations for each Level 1 effect were

$$p_{0j} = b_{00} + b_{01}(\text{FEMALE}) + r_{0j}$$

$$p_{1j} = b_{10} + b_{11}(\text{FEMALE}) + r_{1j}$$

$$p_{2j} = b_{20} + b_{21}(\text{FEMALE}) + r_{2j}$$

$$p_{3j} = b_{30} + b_{31}(\text{FEMALE}) + r_{3j}$$

$$p_{4j} = b_{40} + r_{4j}$$

Finally, each Level 2 coefficient was modeled as a function of the couple at Level 3. Each Level 3 group had two members, and the coefficients (excepting the intercept) were treated as fixed (i.e., *us* were set to 0).⁴ The Level 3 equations for each Level 2 effect were

$$b_{00} = g_{000} + u_{00}$$

$$b_{01} = g_{010}$$

$$b_{10} = g_{100}$$

$$b_{11} = g_{110}$$

$$b_{20} = g_{200}$$

$$b_{21} = g_{210}$$

$$b_{30} = g_{300}$$

$$b_{31} = g_{310}$$

$$b_{40} = g_{400}$$

Results of these analyses (nine sets of equations total) are presented in Table 2. No significant gender differences were found in any associations between behavior and outcomes. The only significant gender difference was that women reported more negative mood on average than men did.

As Table 2 shows, for positive behaviors, hits and false alarms significantly predicted RWB, positive mood, and negative mood. The coefficients for false alarms were consistently smaller than the coefficients for hits, indicating that correctly detecting the presence of positive behaviors had a stronger relationship with outcomes than incorrectly reporting the occurrence of positive behaviors. Chi-square tests showed that the hit and false alarm coefficients differed significantly in all three equations, $ps < .001$. However, misses of positive behaviors (failing to report a positive behavior the partner claimed to have enacted) did not significantly predict any outcome variable.

For negative behaviors, both hits and false alarms significantly covaried with all three outcomes, and false alarm coefficients were significantly smaller than coefficients for hits, $\chi^2(1)s > 10.5$, $ps < .01$. These results are similar to those for positive behaviors. However, for negative behaviors, misses significantly predicted RWB and negative mood, and marginally predicted positive mood. These results indicate

4. Alternative equations in which Level 2 coefficients were treated as fixed (i.e., *rs* set to 0) and Level 3 coefficients were treated as random (i.e., *us* estimated) produced very similar coefficients and significance tests.

Table 2. Summary of hierarchical linear models of signal detection variables predicting relationship well-being and mood

Daily predictor	Daily outcome		
	Relationship well-being	Positive mood	Negative mood
Positive behaviors			
Intercept (b_0)	4.21	1.46	0.47 (0.55)
Hit slope (b_1)	0.48**	0.24**	-0.14**
False alarm slope (b_2)	0.32**	0.19**	-0.08**
Miss slope (b_3)	0.09	0.03	-0.02
Yesterday's outcome (b_4)	0.26**	0.27**	0.32**
Negative behaviors			
Intercept (b_0)	4.09	1.43	0.46 (0.53)
Hit slope (b_1)	-0.77**	-0.35**	0.29**
False alarm slope (b_2)	-0.43**	-0.23**	0.19**
Miss slope (b_3)	-0.23**	-0.05 [†]	0.07*
Yesterday's outcome (b_4)	0.28**	0.29**	0.33**
Supportive behaviors			
Intercept (b_0)	3.87	1.36	0.45 (0.52)
Hit slope (b_1)	0.14*	-0.01	0.09*
False alarm slope (b_2)	0.13*	0.03	0.02
Miss slope (b_3)	0.11	0.01	-0.01
Yesterday's outcome (b_4)	0.32**	0.33**	0.35**

Note. The table shows unstandardized model coefficients for males. The coefficients for females did not differ significantly except for the intercepts for negative mood (negative-mood intercepts for females are in parentheses).

[†] $p < .10$. * $p < .05$. ** $p < .01$.

that negative behaviors reported by the enactor but not noted explicitly by the recipient still affected the recipient's outcomes on that day.

Finally, supportive behaviors produced mixed results. Whereas hits predicted greater RWB, they were also associated with more negative mood. This may indicate that supportive behavior denotes the existence of a mood-impairing stressor, although the supportive exchange may nevertheless benefit the relationship. More generally, hits and false alarms for supportive behaviors covaried with RWB, showing that supportive behaviors (real and imagined) were associated with greater relationship satisfaction. Supportive behaviors did not predict positive mood.

DISCUSSION

We applied two novel methodological approaches to investigate interactions between relationship partners in an ecologically valid setting. First, we examined daily interactions using a three-level hierarchical model, in which days were nested within persons, which in turn were nested within couples. Although this approach restricts random effects, it is conceptually appropriate for analyzing ongoing experience data collected within interacting dyads of any sort and may be expanded to larger groups (e.g., families, work teams). Second, we adapted signal detection methods to examine how enactors' and perceivers' sense of their interactive behavior combines to affect relationship satisfaction and mood. Our results indicate that both perspectives matter.

We found that partners reported both enacting and observing their partners enacting more positive behaviors than negative behaviors. Positive interactions tend to be more common than negative interactions in

ordinary social behavior (Gable & Reis, 2001), a pattern that is consistent with results for laboratory conversations, in which the observed ratio of positive to negative behaviors in satisfied couples tends to be at least 5:1 (Gottman & Levenson, 1999). Our sample was relatively non-distressed, and we speculate that distressed couples would report more frequent negative interactions. A novel finding is that partners appeared to give each other the benefit of the doubt when recalling the day's events: False alarms were more common for positive than for negative behaviors, signifying a constructive bias in perceiving interaction and providing further (and more concrete) evidence of the "positive illusions" (e.g., Murray, Holmes, & Griffin, 1996) that bolster confidence and foster commitment in close relationships.

We also found relatively higher levels of agreement, averaging between 73% and 89%, than those reported in earlier studies using the Spouse Observation Checklist (35%–65%; Christensen & Nies, 1980). This discrepancy may reflect differences in the types of behaviors the measures tapped. We focused on 10 relatively general but important expressive behaviors, whereas Christensen and Nies assessed 179 behaviors that varied in content and importance. In addition, in our study behaviors were assessed every day for 28 days, whereas in their study behaviors were assessed for a single day.

Interestingly, relative accuracy was higher for positive than negative behaviors—as indicated by the ratio of hits to misses—which appears to contradict laboratory findings of the relatively greater attention that negative cues garner (e.g., Pratto & John, 1991). One possible explanation is that in spontaneous interaction, when the nature of the cues cannot be controlled, positive behaviors are either less ambiguous or of greater in-

tensity than negative behaviors, which would make them easier to detect. A more plausible explanation, we believe, again refers to the potency of motivated transformations in ongoing close relationships. As Murray and Holmes (1993), among others, have shown, the process of "turning faults into virtues" facilitates coping with relationship insecurities and doubts, thereby contributing to the resilience of long-term relationships. In other words, our findings may demonstrate that the ability to transform or at least turn a blind eye toward a partner's negativity may be an important adaptive process in satisfying, committed relationships. A third explanation is that memory tends to erode faster for negative than for positive events (Taylor, 1991), an adaptive process that contributes to well-being by helping to undo the effects of negative interactions. It may be that by the time participants completed their daily diaries, individuals in the recipient role had resolved, reinterpreted, or forgotten negative interactions.

Although accuracy may have been higher for positive interactions, negative interactions appeared to have greater impact on relationship well-being, a result consistent with extensive research suggesting that "bad is stronger than good" (e.g., Baumeister, Bratslavsky, Finkenauer, & Vohs, in press; Gable & Reis, 2001; Taylor, 1991). Among the three interaction categories (positive, negative, and supportive), negative behaviors had the largest coefficients with mood and relationship satisfaction. Furthermore, misses produced significant effects for negative but not for positive behaviors. In other words, a partner's argumentative or displeasing behavior may affect one's subjective state even when one is unaware of the specific behaviors in question. Pleasing behaviors, in contrast, may require conscious recognition to have an effect. Perhaps the motivated transformations already described have lingering affective by-products.

For both positive and negative interactions, false alarms produced consistent and relatively large effects, highlighting the importance of the recipient's perspective. Nonetheless, hits had significantly stronger effects on all three outcomes than false alarms did, suggesting that agreement that an event took place may enhance its impact. If nothing else, this finding highlights the value of a dyadic perspective for understanding the impact of interaction on affective well-being.

Finally, results for supportive behaviors were mixed. Supportive behaviors were generally not associated with mood—the sole exception being that hits were associated with more negative mood, consistent with recent work on the cost of receiving support (Bolger et al., 2000). Hits and false alarms for supportive behaviors were both associated with greater relationship satisfaction, indicating that supportive interactions may benefit relationships even if the individual's affect remains distressed (perhaps because the stressful event itself remains to be confronted). We did not find that misses for supportive behaviors were associated with enhanced well-being, as Bolger et al. (2000) did. However, in contrast to their participants, ours were not experiencing a major external stressor, which may provide a context in which missed support has greater impact.

In conclusion, our results point to the merits of studying interaction within close relationships simultaneously from the perspective of both parties. This recommendation, often voiced but infrequently heeded, deserves to become standard operating procedure. Methods for following this approach in naturalistic settings, such as the one illustrated in this article, are likely to be helpful in this regard.

REFERENCES

- Ambady, N., Hallahan, M., & Rosenthal, R. (1995). On judging and being judged accurately in zero-acquaintance situations. *Journal of Personality and Social Psychology*, 69, 518–529.
- Baldwin, M.W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, 112, 461–484.
- Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. (in press). Bad is stronger than good. *Review of General Psychology*.
- Berscheid, E. (1994). Interpersonal relationships. *Annual Review of Psychology*, 45, 79–129.
- Bolger, N., Zuckerman, A., & Kessler, R.C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79, 953–961.
- Bradbury, T.N., & Fincham, F.D. (1992). Attributions and behavior in marital interaction. *Journal of Personality and Social Psychology*, 63, 613–628.
- Bryk, A.S., & Raudenbush, S.W. (1992). *Hierarchical linear models*. Newbury Park, CA: Sage.
- Christensen, A., & Nies, D.C. (1980). The Spouse Observation Checklist: Empirical analysis and critique. *American Journal of Family Therapy*, 8, 69–79.
- Downey, G., Freitas, A.L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology*, 75, 545–560.
- Gable, S.L., & Reis, H.T. (2001). Appetitive and aversive social interaction. In J.H. Harvey & A.E. Wenzel (Eds.), *Close romantic relationship maintenance and enhancement* (pp. 169–194). Mahwah, NJ: Erlbaum.
- Gottman, J.M., & Levenson, R.W. (1999). What predicts change in marital interaction over time? A study of alternative models. *Family Process*, 38, 143–158.
- Gottman, J.M., & Notarius, C.I. (2000). Decade review: Observing marital interaction. *Journal of Marriage and the Family*, 62, 927–947.
- Green, D.M., & Swets, J.A. (1966). *Signal detection theory and psychophysics*. New York: Wiley.
- Hinde, R.A. (1995). A suggested structure for a science of relationships. *Personal Relationships*, 2, 1–15.
- Ickes, W. (1993). Empathic accuracy. *Journal of Personality*, 61, 587–610.
- Kelley, H.H. (1983). The situational origins of human tendencies: A further reason for the formal analysis of structures. *Personality and Social Psychology Bulletin*, 9, 8–36.
- Lieberman, M.D., & Rosenthal, R. (2001). Why introverts can't always tell who likes them: Multitasking and nonverbal decoding. *Journal of Personality and Social Psychology*, 80, 294–310.
- Margolin, G., Burman, B., & John, R.S. (1989). Home observations of married couples reenacting naturalistic conflicts. *Behavioral Assessment*, 11, 101–118.
- McGregor, I., & Holmes, J.G. (1999). How storytelling shapes memory and impressions of relationship events over time. *Journal of Personality and Social Psychology*, 76, 403–419.
- Murray, S.L., & Holmes, J.G. (1993). Seeing virtues in faults: Negativity and the transformation of interpersonal narratives in close relationships. *Journal of Personality and Social Psychology*, 65, 707–722.
- Murray, S.L., Holmes, J.G., & Griffin, D.W. (1996). The self-fulfilling nature of positive illusions in romantic relationships: Love is not blind, but prescient. *Journal of Personality and Social Psychology*, 71, 1155–1180.
- Pratto, F., & John, O.P. (1991). Automatic vigilance: The attention-grabbing power of negative social information. *Journal of Personality and Social Psychology*, 61, 380–391.
- Reis, H.T. (1994). Domains of experience: Investigating relationship processes from three perspectives. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 87–110). Hillsdale, NJ: Erlbaum.
- Reis, H.T., Collins, W.A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin*, 126, 844–872.
- Reis, H.T., & Gable, S.L. (2000). Event-sampling and other methods for studying everyday experience. In H.T. Reis & C.M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 190–222). New York: Cambridge University Press.
- Ross, M., & Sicoly, F. (1979). Egocentric biases in availability and attribution. *Journal of Personality and Social Psychology*, 37, 322–336.
- Sabatelli, R.M., Buck, R., & Dreyer, A.S. (1982). Nonverbal communication accuracy in married couples: Relationship with marital complaints. *Journal of Personality and Social Psychology*, 43, 1088–1097.
- Stone, A.A., Shiffman, S.S., & DeVries, M.W. (1999). Ecological momentary assessment. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 26–39). New York: Russell Sage Foundation.
- Taylor, S.E. (1991). Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin*, 110, 67–85.
- Wills, T.A., Weiss, R.L., & Patterson, G.R. (1974). A behavioral analysis of the determinants of marital satisfaction. *Journal of Consulting and Clinical Psychology*, 42, 802–811.

(RECEIVED 10/9/01; REVISION ACCEPTED 3/14/02)