Post-print version – do not cite without permission

Kumashiro, M., & Sedikides, C. (2005). Taking on board liability-focused information: Close positive relationships as a self-bolstering resource. *Psychological Science, 16,* 732-739.

RUNNING HEAD: Relationships and Liability-Focused Information

Taking on Board Liability-Focused Information:

Close Positive Relationships as a Self-Bolstering Resource

Madoka Kumashiro

Free University of Amsterdam

Constantine Sedikides

University of Southampton

Abstract

Do close-positive relationships function as a self-bolstering resource, armoring the self against potentially threatening information? After taking a difficult and important intellectual ability test, participants visualized a relationship that was either close-positive, close-negative, or neutral (Experiment 1), or a relationship that was either close-positive, close-negative, distant-positive, or distant-negative (Experiment 2). All participants received bogus unfavorable feedback about their performance and subsequently indicated their interest in obtaining further liability-focused information about the performance domain and the underlying intellectual ability. Participants who visualized close-positive relationships expressed the highest interest in receiving such information, despite rating it as unpleasant. State self-esteem and mood did not account for this effect, although warm affect for the relational partner did so. Close-positive relationships function as a psychological resource that bolsters the self against feedback about a newly discovered liability to the point where receptivity to additional liability-relevant information actually increases.

Taking on Board Liability-Focused Information:

Close Positive Relationships as a Self-Bolstering Resource

An emerging literature illustrates two intriguing implications of psychological resources for the self-system. First, a prior opportunity to bolster the self-system dissuades the individual from consistency- or esteem-seeking behavior. For example, self-affirmation (e.g., writing about cherished values) eliminates attitudinal change in the forced-compliance paradigm (Aronson, Cohen, & Nail, 1999) and reduces the propensity to stereotype (Fein & Spencer, 1997) or distance oneself from friends (Tesser & Cornell, 1991). Second, a prior opportunity to bolster the self-system opens up the individual to challenges and opportunities. For example, positive, as compared to negative, experiences (e.g., feelings of success, good mood, sense of control) increase tolerance to opposing political views (Cohen, Aronson, & Steele, 2000) and the likelihood of seeking and accepting unfavorable feedback (Aspinwall, 1998; Raghunathan & Trope, 2002; Trope, Gervey, & Bolger, 2003). In this article, we are concerned with the role of psychological resources in the solicitation of unfavorable information.

Extrapolating from the above findings, Tesser (2000) proposed the substitution principle, according to which psychological resources are interchangeable within the self-system. This principle legitimizes investigation into the relevance for the self-system of a *social*, resource: close-positive relationships. Such relationships likely convey a sense of unconditional acceptance and constitute an integral part of the self (Aron et al., 2005): Activation of mental representations of close others influences self-perceptions (Andersen & Saribay, 2005), self-evaluations (Baldwin & Dandeneau, 2005), and personal goal evaluations (Shah, 2003). More to the point, close relationships have resource potential. For example, priming of a secure attachment style lowers stress (McGowan, 2002), buffers existential anxiety (Mikulincer,

Florian, & Hirschberger, 2003), and promotes compassion and altruism (Mikulincer & Shaver, 2005). Additionally, secure attachment styles are associated with softening the blow of various stressors, such as first-time pregnancy, the birth of an infant suffering from heart disease, or combat training (Mikulincer & Shaver, 2003). Moreover, close relationships provide social support, thereby alleviating symptoms of stress (Cohen & Wills, 1985), depression (Lowenthal & Haven, 1968), and trauma (Hofball & London, 1986**)**, as well as fostering an overly positive self-view, exaggerated perceptions of control, and unrealistic optimism (Martz, Verette, Arriaga, Slovik, Cox, & Rusbult, 1998).

On the other hand, close-negative relationships can and often do have undesirable consequences (Berscheid & Reiss, 1998), as they convey conditional acceptance (Baldwin, 1997). Indeed, conflict in distressed couples also escalates through mutual invalidation (Reis & Patrick, 1996). Close-negative relationships can be damaging to psychological health. Criticism from close others is linked with depression (Besser & Priel, 2003), while wives' marital dissatisfaction predicts later depression (Fincham, Beach, Harold, & Osborne, 1997). Thus, close-negative relationships undermine, rather than resource, the self.

The above literature review suggests that close-positive relationships function as a self-bolstering resource. We therefore hypothesized that activation of mental representations of close-positive relationships increases willingness to obtain accurate information about one's weaknesses on a performance domain, even in the face of prior failure feedback on that domain. Close-positive relationships bolster and shield the self to the point where, even following unfavorable feedback, accurate information about personal liabilities is sought out despite its self-threat potential.

Our hypothesis is consistent with recent findings that dispositional or primed secure attachment styles facilitate exploratory intentions (Green & Campbell, 2000) and cognitive openness (Green-Hennessy & Reis, 1998; Mikulincer & Arad, 1999). At the same time, our research advances this growing literature by addressing whether cognitive activation of close-positive relationships leads to higher receptivity to information about a newly discovered weakness. Moreover, our research isolates the consequences for the self of close-positive, close-negative, distant-positive, and distant-negative relationships; that is, the disentangles relationship closeness from relationship valence in terms of their impact on what people wish to discover about themselves.

We tested our hypothesis through planned contrasts in two experiments. Participants were: (1) University of North Carolina at Chapel Hill (UNC-CH) undergraduates fulfilling an introductory psychology course option; (2) mostly (70%) female, although gender produced no significant effects in preliminary analyses—perhaps due to the low proportion of male participants—and was thus excluded from further consideration; (3) randomly assigned to conditions of near-balanced factorial designs; (4) tested individually; (5) collectively unsuspicious about the experimental hypothesis; and (6) debriefed and thanked at the conclusion of each session. The degrees of freedom vary slightly in the reported analyses, because a negligible number of participants did not complete the requisite scales.

Experiment 1

Although we were concerned mostly with close-positive and close-negative relationships, we included a neutral relationship in Experiment 1 for comparative purposes (i.e., do close-negative relationships influence information-seeking differently from neutral relationships?). Participants completed an intelligence test and thought about either a close-positive, close-

negative, or neutral relationship. Following unfavorable feedback, participants indicated their preference for liability-focused information about their intelligence. We hypothesized that participants in the close-positive relationships condition would express more interest in receiving liability-focused information than those in the close-negative and neutral relationships conditions combined.

Method

Procedure and Materials

The cover story informed participants (n = 110) that they would engage in an intrapersonal and an interpersonal task. The former was the computer-administered "Alport-Jameson Intelligence Test," which consisted of difficult verbal, mathematical, and analytical GRE-like questions to be responded to within 25-45 seconds each. This 20-minute test was allegedly in use since 1995, taken by over 110,000 university students nationwide, and considered an indisputably valid and reliable measure of intelligence. Upon test completion, participants learned that feedback would follow shortly along with a comprehensive and individualized profile of their intelligence.

The interpersonal task (*relationship visualization task*) followed. Participants in the close-positive relationships condition thought of "a warm and positive relationship … of that special person with whom you have the *best* relationship of all." They wrote down this person's name initials, as well as the nature of their relationship (*relationship type*), and spent 3 minutes on each of the following questions: "What does this relationship personally mean to you?"; "Why is this relationship so important and special to you personally?"; "What are the most wonderful aspects of the relationship for you?"; "How does the relationship make you feel?", and "Imagine this person sitting next to you at this very moment. How would you feel?"

Participants in the close-negative relationships condition thought of "a cold and negative relationship ... of the person with whom you have the *worst* relationship of all … a person with whom you have to (or are obligated to) interact regularly." After writing down the person's name initials and relationship type, participants spent 3 minutes on each of five questions, two of which were different from the above ("Why is this relationship so negative for you personally?"; "What are the least desirable aspects of the relationship for you?"). Finally, participants in the neutral relationships condition thought of "a distant relationship … of a person with whom you have a truly *neutral* relationship … a person whom you don't know well and neither like nor dislike" and proceeded with tasks analogous to those of the other conditions.

Next, participants received bogus performance feedback ostensibly based on norms well-validated within the UNC-CH undergraduate student population. Participants learned that their scores fell on the 41st percentile and their performance was "poor." After responding to the *performance satisfaction* manipulation check ("How pleased are you with your performance on the intelligence test?"; 1 = *not at all*, 9 = *very much*), participants learned that a profile of their intelligence had been compiled and they would be given an opportunity to receive additional performance-related information which was accurate, specified their weak points and difficulties in each intelligence domain, and could help them improve their performance.

Then, participants responded to three questions assessing *interest in liability-focused information*: (1) "How interested are you in reading detailed liability-focused information?"; (2) "To what extent would you be willing to go out of your way to obtain detailed liability-focused information?"; and (3) "To what extent would you like us to recommend further sources that would provide you with even more detailed liability-focused information?" (1 = *not at all*, 9 = *very much*). Finally, participants responded to the *test difficulty* ("How easy/difficult did you find

the Alport-Jameson Intelligence Test?; 1= *very easy*, 9 = *very difficult*) and *information unpleasantness* ("How pleasant or unpleasant do you expect the detailed information about yourself to be?"; 1 = *very unpleasant*, 9 = *very pleasant*) manipulation checks.

Results and Discussion

Relationship Type

In the close-positive relationships condition, participants listed family members, romantic partners, or friends. In the close-negative relationships condition, participants listed a variety of relationships, ranging from acquaintances and roommates to family members. None of the participants in the neutral relationships condition listed a family member or current romantic partner, and many of them listed acquaintances or former romantic liaisons (Table 1).

Manipulation Checks

For each manipulation check question, we conducted a t-test against the scale midpoint (M = 5.00). Participants were displeased with their performance (M = 1.73), $t(109) = -27.03$, $p < .001$, considered the intelligence test difficult (M = 6.97), $t(109) = 16.82$, $p < .001$, and expected the liability-focused information to be unpleasant (M = 3.70), $t(109) = -8.15$, $p < .001$. Planned contrasts (close-positive vs. close-negative and neutral relationship conditions combined) on each manipulation check question produced null results.

Interest in Liability-Focused Information

Given that responses to the liability-focused questions had good internal consistency (α = 0.84), we averaged them and conducted planned contrasts on the resulting composite. We provide effect size information by reporting $r_{effect\ size}$ in accordance to guidelines by Rosenthal, Rosnow, and Rubin (2000) and Furr (2004).

Our hypothesis was confirmed. Participants in the close-positive relationships condition (M = 5.05) displayed stronger interest in liability-focused information than those in the close-negative (M = 4.01) and neutral (M = 4.21) relationships conditions combined, $t(107) = 2.56$, $p < .05$, $r = .24$. Participants in the close-negative relationships condition did not differ significantly from those in the neutral relationships condition, $t(107) = -0.47$, $p < .64$, $r = .04$.

Affect for Related Other

We posed two questions regarding affect for the related other. First, did affect vary as a function of relationship closeness? Second, did affect account for interest in liability-focused information? A coder unaware of our hypotheses rated the protocols of the relationship visualization task on evoked affect (1 = *very negative*, 2 = *negative*, 3 = *neutral*, 4 = *positive*, 5 = *very positive*). A second coder independently rated over 1/3 (i.e., 36%) of the protocols. Given the high interrater reliability ($r = .93$), we used the first coder's ratings in our analyses.

Did affect vary as a function of relationship closeness? A planned contrast revealed that participants expressed warmer (i.e., more positive) affect for the close-positive other (M = 5.00) than the close-negative (M = 1.31) and neutral (M = 3.18) others combined, $t(104) = 22.80$, $p < .01$, $r = .82$. Further, participants expressed warmer affect for the neutral than close-negative other, $t(104) = 13.15$, $p < .01$, $r = .45$.

Did affect account for interest in liability-focused information? Following Rosenthal et al.'s (2000) guidelines, we created contrast codes for the two contrasts and entered the contrast codes and affect in a multiple regression model on interest in liability-focused information. The previously significant contrast between the close-positive versus close-negative/neutral relationships conditions was reduced to non-significance, $t(103) = 1.28$, $p < .21$, $r = .13$. The contrast between the close-negative and neutral relationships conditions remained non-

significant, $t(103) = .70$, $p < .49$, $r = .07$. The covariate was not significant, $t(103) = -.13$, $p < .90$, $r = -.01$. Note that, in a separate regression analysis, affect did predict interest in liability-focused information, $t(105) = 2.67$, $p < .01$, $r = .25$. The lack of significance may be due to the strong association between the covariate and the experimental condition. In all, affect for the related other accounted for interest in liability-focused information.

Summary

Even in the face of unfavorable feedback, bringing to mind close-positive relationships strengthens interest in information about one's weaknesses. This information was purported to be accurate and potentially useful. Nonetheless, it was perceived as threatening (i.e., unpleasant), something that makes its paradoxical pursuit all the more impressive. Finally, affect for the related other emerged as an explanation for this finding.

Experiment 2

Experiment 1 demonstrated that cognitive activation of close-positive (compared to close-negative and neutral) relationships engenders the solicitation of accurate and potentially improving, yet threatening, information about personal liabilities. An objective of Experiment 2 was to find out if this pattern is obtained when close-positive relationships are compared not only to close-negative, but also to distant-positive and distant-negative relationships. Stated otherwise, are the relational features of closeness and positivity both required for the observed effect on liability-focused information to occur? Another objective of Experiment 2 was to test explanations for the hypothesized effect. Along with affect for the related other (as in Experiment 1), Experiment 2 tested the mechanisms of state self-esteem and mood. Do elevated self-esteem or good mood account for the increased interest in liability-focused information among participants who visualize a close-positive relationship?

Participants took an ostensibly important intellectual skill test and thought of one of four kinds of relationships: close-positive, close-negative, distant-positive, and distant-negative. Following unfavorable feedback, participants indicated their interest in liability-focused information. We hypothesized that participants in the close-positive relationships condition would display the strongest interest in liability-focused information. We tested this hypothesis by contrasting participants in this condition against participants in the remaining three conditions.

Method

Procedure and Materials

Participants (n = 95) were tested on the "important intellectual skill of integrative orientation." The relevant test actually was a 20-item difficult version of the Remote Associates Test (McFarlin & Blascovich, 1984). For each item, participants encountered three words and generated a fourth that matched their meaning (e.g., cotton-bathtub-tonic; gin). Upon test completion (15 minutes), participants learned that test results along with a comprehensive and individualized profile of their integrative orientation skill would follow shortly.

Next, participants were requested to help with an ostensibly unrelated study (in actuality, the *relationship visualization task*). This task was different from that of Experiment 1 in two ways. First, participants visualized one of four relationship kinds: close-positive, close-negative, distant-positive, distant-negative. Second, participants in the two positive relationships conditions listed how the person was supportive of them, whereas participants in the two negative relationships conditions listed how the person was critical of them.

Participants then received feedback that they scored on the 41st percentile and their performance was "below average." Following administration of the *performance satisfaction* manipulation check, participants completed the 20-item Heatherton and Polivy (1991) state self-

esteem scale (0 = *do not agree at all*, 8 = *agree completely*). Next, they filled out a mood scale (Martin, Abend, Sedikides, & Green, 1997), consisting of six positive (good, content, happy, calm, peaceful, pleased) and four negative (anxious, tense, nervous, and down) items (0 = *do not agree at all*, 8 = *agree completely*). We reverse-scored the negative items.

Subsequently, participants learned that a comprehensive profile of their integrative orientation skill had been compiled and they would have the opportunity to receive additional information which was a thorough analysis of their liabilities—an analysis that could improve their skill level. Participants proceeded to respond to four questions regarding interest in liability-focused information. Three questions were identical to those of Experiment 1, while the fourth one read "How detailed would you like the liability-focused information to be?" (0 = *not at all*, 8 = *very much*). Finally, participants completed the *test difficulty* and *information unpleasantness* manipulation checks.

Results and Discussion

Relationship Type

In the close-positive relationships condition, participants listed exclusively family members, romantic partners, or friends. In the close-negative relationships condition, participants listed a variety of relationship types, ranging from acquaintances and roommates to family members. Finally, in the distant-positive and distant-negative relationships conditions, participants listed several relationship types (e.g., classmate/co-worker, acquaintance) excluding family members and romantic partners (Table 2).

Manipulation Checks

For each manipulation check question, we conducted a t-test against the scale midpoint (M = 4.00). Participants were displeased with their performance (M = 1.33), $t(94) = -17.48$, $p <$

.001, considered the intelligence test difficult (M = 6.19), $t(94) = 18.11$, $p < .001$, and expected the liability-focused information to be unpleasant (M = 2.62), $t(94) = -9.87$, $p < .001$. Planned contrasts (close-positive vs. remaining three conditions) on each manipulation check question produced null results.

Interest in Liability-Focused Information

Given that responses to the four liability-focused questions showed good internal consistency ($\alpha = 0.90$), we averaged them and carried planned contrasts on the composite. The results were consistent with our hypothesis. Participants in the close-positive relationships condition (M = 4.15) expressed stronger interest in liability-focused information than participants in the remaining three conditions combined ($M_{\text{close-negative}} = 3.25$; $M_{\text{distant-positive}} = 3.02$; $M_{\text{distant-negative}} = 2.91$), $t(90) = 2.25$, $p < .03$, $r = .23$. Tukey's comparisons revealed no significant differences among the close-negative, distant-positive, and distant-negative relationships conditions.

State Self-Esteem

The state self-esteem scale has good internal consistency ($\alpha = 0.91$). Means are displayed in the first row of Table 3. The planned contrast revealed that participants in the close-positive relationships condition did not report having higher state self-esteem than participants in the other three conditions combined, $t(90) = .04$, $p < .97$, $r = .02$. Tukey's comparisons revealed no significant differences among the means in the close-negative, distant-positive, and distant-negative relationships conditions. The effect of close-positive relationships on interest in liability-focused information are not attributable to temporarily elevated self-esteem.

Mood

The mood scale had good internal consistency ($\alpha = 0.88$). Means are presented in the second row of Table 3. A planned contrast revealed that participants in the close-positive relationships condition did not report being in a better mood than participants in the other three conditions combined, $t(90) = .75$, $p < .46$, $r = .09$. Tukey's comparisons revealed no significant mean differences among the close-negative, distant-positive, and distant-negative relationships conditions. The impact of close-positive relationships on interest in liability-focused information is not attributable to better mood.

Affect for Related Other

We tested whether affect differed as a function of related other, and whether affect accounted for interest in liability-focused information. A coder unaware of the hypotheses rated all protocols on affect (1 = *very negative*, 2 = *negative*, 3 = *neutral*, 4 = *positive*, 5 = *very positive*), while a second coder independently rated 36% of the descriptions. Interrater reliability was high, $r = .87$, thus allowing us to use the first coder's ratings in the analyses. Means are shown in the third row of Table 3.

Did affect vary as a function of relationship closeness? In a conceptual replication of Experiment 1, a planned contrast revealed that thinking about a close-positive other evoked warmer affect than thinking about the other three kinds of related others combined, $t(90) = 9.61$, $p < .01$, $r = .70$. Tukey's comparisons revealed that participants reported warmer affect for distant-positive than distant-negative or close-negative others.

Did affect account for interest in liability-focused information? Again, we created contrast codes for the main contrast (i.e., close-positive relationships condition vs. combination of close-negative, distant-positive, and distant-negative relationships conditions) and two other orthogonal contrasts. We then entered the contrast codes and affect in a multiple regression

model on interest in liability-focused information. The previously significant effect was attenuated to marginal: $t(86) = 1.82$, $p < .08$, $r = .19$. The covariate was not significant, $t(86) = -.99$, $p < .33$, $r = -.11$. Affect did not predict interest in liability-focused information in a separate regression analysis either, $t(89) = 1.17$, $p < .25$, $r = .12$. In all, affect only partially accounted for interest in liability-focused information.

Summary

Cognitive activation of close-positive relationships strengthened interest in accurate and potentially improving, albeit threatening, information about one's performance liabilities. This effect was not obtained when close-negative, distant-positive, or distant-negative relationships were activated. Furthermore, the effect could not be accounted for in terms of self-esteem increase or mood elevation, but it was partially accounted for in terms of warm affect for the related other.

General Discussion

Past research has shown that psychological resources (e.g., success experiences, positive mood, sense of control) can offset harmful consequences of failure feedback: Such resources increase the willingness to obtain accurate, if unfavorable, information about the self (Aspinwall, 1998; Trope et al., 2003). Additionally, past research has demonstrated that close relationships have resource potential, as they contribute to cognitive openness (Mikulincer & Arad, 1999) and exploration (Green & Campbell, 2000), while soothing both psychological (Mikulincer & Shaver, 2003) and physical (Kiecolt-Glaser & Newton, 2001) health symptoms.

The present investigation brought these two literatures together. Assuming that close-positive relationships convey a sense of warmth and acceptance, we hypothesized that thinking about close-positive relationships would increase receptivity to accurate but unpleasant

information about performance weaknesses in the face of immediate prior failure. Close-positive relationships buffer the self to the point where, even when objective reality highlights one's liabilities, accurate and potentially improving information about these liabilities will be considered worth soliciting despite the clear and present threat to the self.

The evidence was consistent with the hypotheses. In Experiment 1, participants who brought to mind a close-positive (as opposed to close-negative or neutral) relationship indicated stronger interest in additional information about a newly discovered weakness. In Experiment 2, participants who brought to mind a close-positive (as opposed to close-negative, distant-positive, or distant-negative) relationship expressed the strongest interest in information about a newly discovered weakness. Buffered by thoughts of a close-positive relationship, participants overcame a considerable amount of self-threat in venturing for potentially useful information.

What are the mechanisms through which close-positive relationships resource the self? Experiment 2 ruled out elevated state self-esteem and good mood as explanatory mechanisms. However, warm affect for the related other emerged as a potential explanation across the two experiments. What are the physiological correlates of this mechanism? One hypothesis is a surge in oxytocin levels (Taylor et al., 2000), a hypothesis that needs to be tested in conjunction with possible gender differences (Broadwell & Light, 1999; Taylor, 2002). Women may experience a higher surge in oxytocin level than men when visualizing a close-positive other.

Our investigation opens up additional empirical avenues. Along with warm affect for the related other, do mechanisms such as feeling unconditionally accepted by the partner or experiencing the partner as part of one's self play a role in the solicitation of liability-focused feedback? What type of close-positive relationships (e.g., romantic partners, friends, family) constitutes the most effective self-bolstering mechanism? Does relationship-induced self-

bolstering influence other performance-related variables such as task persistence, intrinsic motivation, and creativity? Finally, what are some crucial individual differences in the use of close-positive relationships as a resource? Possible candidates are self-esteem (Murray, Holmes, MacDonald, & Ellsworth, 1998), attachment style (secure, avoidant, dismissive) (Mikulincer & Shaver, 2003), and incremental versus entity theorizing (Dweck, 1999).

In conclusion, the present research established another way in which self-evaluations (i.e., feedback preferences) are shaped by close relationships. The research extended the growing literature on relationships-as-resource by showing that cognitive activation of close-positive relationships strengthens interest in information about one's newly discovered liabilities. In the safety and comfort of close-positive relationships, individuals venture even to seemingly harsh territory—to territory where diagnostic but hurtful information may lie.

References

Andersen, S. M., & Saribay, S. A. (2005). The relational self and transference: Evoking motives, self-regulation, and emotions through activation of mental representations of significant others. In M. W. Baldwin (Ed.), *Interpersonal cognition* (pp. 1-32). New York: Guilford Press.

Aron, A., Mashek, D., McLaughlin-Volpe, T., Wright, S., Lewandowski, G., & Aron, E. N. (2005). Including close others in the cognitive structure of the self. In M. W. Baldwin (Ed.), *Interpersonal cognition* (pp. 206-232). New York: Guilford Press.

Aronson, J., Cohen, G., & Nail, P. R. (1999). Self-affirmation theory: An update and appraisal. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 127-147). Washington, DC: APA Books.

Aspinwall, L. G. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion, 22*, 1-32.

Baldwin, M. W. (1997). Relational schemas as a source of if-then self-inference procedures. *Review of General Psychology, 1*, 326-335.

Baldwin, M. W., & Dandeneau, S. D. (2005). Understanding and modifying the relational schemas underlying insecurity. In M. W. Baldwin (Ed.), *Interpersonal cognition* (pp. 33-61). New York: Guilford Press

Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In D. T. Gilbert, S. T. Fiske, G. Lindzey (Eds.), *The Handbook of Social Psychology*. Boston: McGraw-Hill.

Besser, A., & Priel, B. (2003). A multisource approach to self-critical vulnerability to depression: The moderating role of attachment. *Journal of Personality, 71*, 515-555.

Broadwell, S. D., & Light, K. C. (1999). Family support and cardiovascular responses in married couples during conflict and other interactions. *International Journal of Behavioral Medicine, 6,* 40-63.

Cohen, S., & Wills, T. A. (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.

Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin, 26,* 1151 – 1164.

Dweck, C. S. (1999). *Self theories: Their role in motivation, personality, and development*. Philadelphia: Psychological Press/Taylor Francis.

Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology, 73*, 31-44.

Fincham, F. D., Beach, S. R. H., Harold, G. T., & Osborne, L. N. (1997). Marital satisfaction and depression: Different causal relationships for men and women? *Psychological Science, 8*, 351-357.

Furr, R. M. (2004). Interpreting effect sizes in contrast analysis. *Understanding Statistics, 3*, 1-25.

Green, J. D., & Campbell, W. K. (2000). Attachment and exploration in adults: Chronic and contextual accessibility. *Personality and Social Psychology Bulletin, 26,* 452-461.

Green-Hennessy, S., & Reis, H. T. (1998). Openness in processing social information among attachment types. *Personal Relationships, 5*, 449-466.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.

Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale of measuring state self-esteem. *Journal of Personality and Social Psychology, 60,* 895-920.

Hofball, S. E., & London, P. (1986). The relationship of self-concept and social support to emotional distress among women during the war. *Journal of Social and Clinical Psychology, 4,* 189-203.

Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin, 127,* 472-503.

Lowenthal, M. F., & Haven, C. (1968). Interaction and adaptation: Intimacy as a critical variable. *American Sociological Review, 33,* 20-30.

Martin, L., Abend, T., Sedikides, C., & Green, J. D. (1997). How would I feel if...?: Mood as input to a role fulfillment evaluation process. *Journal of Personality and Social Psychology, 73*, 242-253.

Martz, J. M., Verette, J., Arriaga, X. B., Slovik, L., F., Cox, C. L., & Rusbult, C. E. (1998). Positive illusions in close relationships. *Personal Relationships, 5*, 151-181.

McFarlin, D. B., & Blascovich, J. (1984). Associates Test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic and Applied Social Psychology, 5,* 223-229.

McGowan, S. (2002). Mental representations in stressful situations: The calming and distressing effects of significant others. *Journal of Experimental Social Psychology, 38,* 152-161.

Mikulincer, M., & Arad, D. (1999). Attachment working models and cognitive openness in close relationships: A test of chronic and temporary accessibility effects. *Journal of Personality and Social Psychology, 77*, 710-725.

Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the science of love. *Personality and Social Psychology Review, 7*, 20-40.

Mikulincer, M., & Shaver, P. R. (2005). Attachment, security, compassion, and altruism. *Current Directions in Psychological Science, 14*, 34-38.

Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. *Advances in Experimental Social Psychology, 35*, 53-152.

Murray, S. L., Holmes, J. G., MacDonald, G., & Ellsworth, P. C. (1998). Through the looking glass darkly?: When self-doubts turn into relationship insecurities. *Journal of Personality and Social Psychology, 75*, 1459-1480.

Raghunathan, R., & Trope, Y. (2002). Walking the tightrope between feeling good and being accurate: Mood as a resource in processing persuasive messages. *Journal of Personality and Social Psychology, 83*, 510-525.

Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles*. New York: Guilford.

Rosenthal, R., Rosnow, R. L., & Rubin, D. B. (2000). *Contrasts and effect-sizes in behavioral research: A correlational approach*. Cambridge, England: Cambridge University Press.

Shah, J. (2003). The motivational looking glass: How significant others implicitly affect goal appraisals. *Journal of Personality and Social Psychology, 85*, 424-439.

Taylor, S. E. (2002). *The tending instinct: Women, men, and the biology of our relationships*. New York, NY: Henry Holt and Company.

Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A. R., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review, 107,* 411-429.

Tesser, A. (2000). On the confluence of self-esteem maintenance mechanisms. *Personality and Social Psychology Review, 4*, 290-299.

Tesser, A., & Cornell, D. P. (1991). On the confluence of self-processes. *Journal of Experimental Social Psychology, 27,* 501-526.

Trope, Y., Gervey, B., & Bolger, N. (2003). The role of perceived control in overcoming defensive self-evaluation. *Journal of Experimental Social Psychology, 39*, 407-419.

Table 1

Percentage of Relationship Type as a Function of Experimental Condition in Experiment 1

Relationship Type	Close-Positive	Close-Negative	Neutral
Family	30	9	
Romantic Partner	38	3	
Friend	30	9	8
Acquaintance		3	37
Roommate		14	8
Classmate/Co-worker		17	34
Ex-Romantic Partner	3	17	
Former Friend		17	3
Other (e.g., instructor, relation of a friend)		11	11

Note. Due to rounding errors, the percentages may not equal 100 percent.

Table 2

Percentage of Relationship Type as a Function of Experimental Condition in Experiment 2

Relationship Type	Close-Positive	Close-Negative	Distant-Positive	Distant-Negative
Family	45	15		
Romantic Partner	41			
Friend	14	19	5	8
Acquaintance		15	32	29
Roommate		19	5	
Classmate/Co-worker		15	45	42
Ex-Romantic Partner		7		
Former Friend		7	9	13
Other (e.g., instructor, relation of a friend)		4	5	8

Note. Due to rounding errors, the percentages may not equal 100 percent.

Table 3

State Self-Esteem, Mood, and Affect for Person Visualized as a Function of Relationship Closeness and Relationship Valence in Experiment 2

	Close-Positive Relationships	Close-Negative Relationships	Distant-Positive Relationships	Distant-Negative Relationships
State Self-Esteem	5.22	5.17	5.48	5.01
Mood	5.65	5.30	5.61	5.39
Affect	5.00	1.46	4.05	1.91