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Devaluation Versus Enhancement of Attractive Alternatives: A Critical Test Using the Calibration Paradigm

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The calibration paradigm was used to test the competing hypotheses that (a) commitment motivates unduly negative evaluations of attractive alternatives (devaluation) versus (b) low commitment motivates exaggerated positive evaluations of attractive alternatives (enhancement). Single participants and dating participants low and high in relationship commitment were presented with an attractive, available person of the opposite sex and asked to judge the person's romantic appeal from their own perspective or from the perspective of their friends. Contrary to predictions based on the enhancement hypothesis, single and low-commitment participants did not provide higher ratings from their own perspective. In support of devaluation and calibration hypotheses, committed participants did provide lower ratings from their own perspective. Singles did not rate the target less attractive in a third condition in which the target was unavailable. However, dating participants, regardless of commitment level, rated the unavailable alternative negatively, consistent with social comparison processes and interdependence theory.

Keywords: commitment; devaluation; close relationships; alternatives

Interpersonal commitment refers to the motivation to maintain and sustain one's relationship even in the face of adversity. As such, a person is expected to engage in various cognitive and behavioral responses to relationship threats that reduce the threat and sustain the relationship (Lydon, 1999; Rusbult & Buunk, 1993). One such class of threats is posed by the availability of an attractive alternative. Thus, one should be expected to avoid alternatives in order to protect the relationship. If faced with an alternative, a person should dismiss either the availability or the attractiveness of the alternative (Kelley, 1983). Individuals committed to a close relation-

ship should "devalue" the attractiveness of an available alternative as a way to protect the relationship.

In a seminal article, Johnson and Rusbult (1989) reported a series of three studies supporting the notion that relationship commitment has a negative linear relationship with judgments of the attractiveness of alternatives. In Study 2, students in dating relationships were presented with a photograph and description of someone who, based on objective ratings, was determined to be low, moderate, or high in attractiveness. Participants were then asked to evaluate the target. Johnson and Rusbult obtained their predicted negative linear relationship between self-reported commitment and attractiveness ratings of the alternative. This effect was found specifically for highly attractive alternatives. Moreover, highly committed participants rated the highly attractive targets as no more attractive than the moderately and lowly attractive targets. In contrast, those low in commitment recognized the objective differences in the levels of attractiveness.

In the 13 years since the publication of the Johnson and Rusbult (1989) findings, numerous empirical

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papers have cited and endorsed the devaluation of alternatives effect (Fletcher, Simpson, Thomas, & Giles, 1999; Lydon, Meana, Sepinwall, Richards, & Mayman, 1999; Miller, 1997; Simpson, Gangestad, & Lerma, 1990; Simpson, Ickes, & Blackstone, 1995). Reviews of the relationships literature also attest to the acceptance of this formulation (Berscheid & Reis, 1998; Clark & Pataki, 1995; Holmes & Murray, 1996). The effect has so permeated social psychology that it has even merited a chapter subheading in a recent social psychology text: "Commitment Changes the Perception of Alternative Relationships" (Kenrick, Neuberg, & Cialdini, 1999, p. 295).

Recently, Bazzini and Shaffer (1999) challenged the fundamental notion of devaluation and presented an alternative explanation for the Johnson and Rusbult (1989) results. They conceptualized those high in commitment as objective evaluators of attractiveness and those low in commitment as relationship seekers who exaggerate the attractiveness of alternatives. In one study, Bazzini and Shaffer (1999) had students in exclusive versus nonexclusive dating relationships imagine themselves at a restaurant in which "an extremely attractive member of the opposite sex . . . is very interested in meeting you" or "in meeting [your best friend]." After thinking about this fantasy for a few minutes, those in both exclusive and nonexclusive relationships rated the target as more attractive when imagining that the target was attracted to them than when imagining that the target was attracted to their best friend. On the more threatening dependent measure of romantic appeal, nonexclusive daters showed this same effect, but exclusive daters rated the target as no more appealing a romantic partner in the personal fantasy condition as in the best friend fantasy condition.

In a second study by Bazzini and Shaffer (1999), participants believed that they would have an interaction with an attractive person of the opposite sex who was either (a) available and interested in the participant (high-threat) or (b) unavailable (low-threat). In this study, both exclusive and nonexclusive daters rated the high-threat target higher than the low-threat target for both ratings of physical attractiveness and evaluation as a romantic partner. Thus, across two experiments, Bazzini and Shaffer (1999) found little evidence of devaluation of alternatives by highly committed individuals.

How can one account for these seemingly contradictory findings? We have theorized and found that the devaluation of alternatives effect is not a simple negative linear relationship between commitment and attractiveness ratings (Lydon et al., 1999). Rather, the devaluation effect is found only when the level of commitment is calibrated with the level of threat presented by the alternative. When the level of threat is commensurate with the

level of commitment, a relationship should be defended. When the level of threat exceeds the level of commitment, one will not defend and instead succumb to the threat. Moreover, when the level of commitment exceeds the level of threat, one will not defend because the threat is not sufficient to arouse a defense.

The Calibration Approach

We believe that the calibration hypothesis (Lydon et al., 1999) may help explain the apparent contradiction in previous research. We conceptualize individuals who are highly committed to a dating relationship as moderately committed in an absolute sense (relative to those highly committed to a marriage). Consequently, both the Johnson and Rusbult (1989) and the Bazzini and Shaffer (1999) studies would be comparisons of low versus moderate commitment. The key difference between the two studies lies in the level of threat presented by the attractive alternative. Johnson and Rusbult's (1989) presentation of an attractive alternative can be conceived of as a moderate level of threat. In contrast, Bazzini and Shaffer's (1999) presentation of an available attractive alternative who is also interested in the participant is a higher level of threat: It is one thing to encounter an attractive person but quite another when the person is attracted to you.

According to the calibration hypothesis, those moderately committed should give lower ratings to a moderately threatening alternative (as in Johnson & Rusbult, 1989) than those low in commitment. In a high-threat condition (such as in Bazzini & Shaffer, 1999, Study 2), moderately committed participants would not be expected to devalue the alternative because the level of threat exceeds their level of commitment. In this condition, only those who are high in commitment (highly committed married participants) would be expected to devalue the alternative. Both exclusive and nonexclusive daters would be expected to succumb to the threat and give the alternative a deservedly high rating, which is exactly what Bazzini and Shaffer (1999) found.

In our original test of the calibration hypothesis (Lydon et al., 1999), low-, moderate-, and high-commitment participants were randomly assigned to a moderate threat or high-threat condition. Consistent with the calibration hypothesis, only the moderately committed devalued under moderate threat and only the highly committed devalued under high threat. That is, when simply presented with an attractive alternative, moderately committed participants rated the alternative as less attractive than their low- and high-commitment counterparts and a baseline group of single participants. However, when presented with an alternative who was attracted to them, highly committed participants rated the alternative as less attractive than their low-committed

and moderately committed counterparts and the baseline group of single participants.

The Current Research: Devaluation, Enhancement, and Interdependence Perspectives

Of interest, the calibration hypothesis provides a paradigm for testing devaluation versus enhancement explanations of responses to attractive alternatives by controlling the level of threat/opportunity presented. Both devaluation and enhancement predict that single, low-committed, and moderately committed participants would respond identically when presented with an attractive person in a nonthreatening, low “relationship-seeking potential” manner. The devaluation hypothesis would attribute the lack of difference to a lack of threat for those moderately committed, whereas the enhancement hypothesis would attribute it to a lack of relationship-seeking potential for the single and low-commitment participants.

However, predictions diverge regarding a target person who is an available attractive alternative (i.e., as moderately threatening). Both the devaluation and calibration hypotheses predict that the moderately committed would provide lower ratings of attractiveness under this condition of moderate threat than under low threat. In contrast, the enhancement hypothesis predicts that the moderately committed should not alter their (presumably objective) ratings across conditions. Rather, singles and those low in commitment should increase their ratings of the target to “bolster the attributes of potential dating partners (the target-enhancement hypothesis)” (Bazzini & Shaffer, 1999, p. 172).

The goal of the present study was to use the calibration paradigm to create a more definitive test of the devaluation versus enhancement hypotheses. To do so, we examined three groups of participants: single, low-committed, and moderately committed. Bazzini and Shaffer (1999) operationalized nonexclusive daters as including single people, those dating more than one person, and those in the early stages of a dating relationship and compared them to exclusive daters—those in established monogamous relationships. In contrast, Johnson and Rusbult (1989) originally used individual differences in self-reported relationship commitment to group participants. In the original calibration study (Lydon et al., 1999), we had a singles group similar to Bazzini and Shaffer’s (1999) nonexclusive daters and we split exclusive daters based on individual differences in relationship commitment, as did Johnson and Rusbult (1989). In the current study, by again presenting single, low-committed, and moderately committed participants with an available attractive alternative (as in Lydon et al.), we established the basic condition that previously

produced differences between groups in the evaluation of attractive others—what some interpret as evidence of devaluation and others interpret as evidence of enhancement.

Our challenge in designing this study was to create an appropriate baseline to critically test the competing hypotheses. Unfortunately, there did not seem to us to be one perfect baseline that would allow for a pure and complete test of the different hypotheses. Thus, our strategy was to utilize multiple baselines to triangulate on the hypotheses under consideration.

The first baseline used was the presentation of an unavailable attractive other, as in Bazzini and Shaffer (1999). Such a condition provides a useful test of the main tenet of the enhancement hypothesis: Clearly, single people should be more interested in an available other than an unavailable other. Thus, Enhancement Hypothesis 1 is that single people will rate an available alternative as more attractive than an unavailable alternative because the former activates a relationship-seeking motive that the latter does not activate.

However, for the low-commitment participants, an unavailable alternative may not serve as a good baseline for comparison of the different hypotheses. Someone in an ongoing dating relationship, regardless of his or her responses on a relationship commitment measure, is likely to react quite differently than a single person might react to an unavailable other. According to interdependence theory, when those in relationships encounter someone else in a relationship, social comparison processes are activated (Rusbult & Van Lange, 1996). An attractive person in another relationship presents a challenge to one’s comparison level (CL), that is, one’s expectations about how satisfying one’s own relationship should be. Moreover, abundant evidence suggests that those in relationships are motivated to see their partners as better than the partners of others (Gagne & Lydon, 2001; Murray, Holmes, & Griffin, 1996; Van Lange & Rusbult, 1995). Whereas the evidence to date has focused on the boosting of one’s own partner to maintain a favorable social comparison, derogating the relationship partners of others also would help maintain perceived superiority.

Thus, according to research and theory in the interdependence tradition, an unavailable attractive other will likely threaten those in dating relationships regardless of their commitment level, necessitating a devaluation of the attractive comparison other. Consequently, low-committed and moderately committed participants would be expected to rate the unavailable alternative as low in attractiveness.

Therefore, if we compare ratings of unavailable and available targets, we might expect to see singles giving higher ratings to the available target than to the unavail-

able target (if the enhancement hypothesis is supported). Both enhancement and interdependence approaches would predict low-commitment daters to also give higher ratings to the available target. Enhancement would predict that low-commitment daters would respond in the same way as singles. In contrast, interdependence theory would predict mean differences between low-commitment daters and singles (Interdependence Hypothesis 1) because the low-commitment daters would exhibit a defensive social comparison effect in the unavailable condition and a failure to devalue in the available condition. Finally, in accordance with interdependence and devaluation approaches, we would expect the moderately committed to provide similar ratings for the two conditions (because the first threatens perceived superiority and the latter threatens relationship commitment). Thus, our first “baseline,” which is necessary to examine enhancement clearly, does not provide a useful test of devaluation because of its entanglement with social comparison processes. Our next challenge was then to create another baseline that would be (a) completely nonthreatening to those in relationships and (b) would not provide a relationship-seeking motive to single people.

We reasoned that rating how one’s friends would view an attractive available alternative would be less threatening than rating how one would personally view the attractive alternative. The act of rating the target from a friend’s perspective should create sufficient personal distance to defuse the threatening personal implications of having to rate the attractiveness of the target. Moreover, the potential for a future interaction with the attractive target also could be perceived as somewhat threatening to those who are committed to a relationship and would provide singles with a potential relationship opportunity. By eliminating the potential for a future interaction, we also would eliminate the relationship-seeking motives of those low in commitment. As Bazzini and Shaffer (1999) stated, “The possibility of interacting with an available and interested target should activate opportunistic motives” (p. 168).

Thus, a condition in which participants encounter a single, attractive target and are asked what their friends would think about the target should be a low-threat situation, not necessitating the relationship-defending response of devaluation. As well, from an enhancement perspective, this is a situation with low relationship-seeking potential (attractive and single person but no opportunity to meet). Thus, there should be no motive for relationship seekers to enhance or bolster the attractiveness of the target. Therefore, the friend rating condition should serve as a reasonable baseline for all theoretical perspectives under consideration.

Enhancement Hypothesis 2 is that single and low-commitment participants will rate the available alternative as more attractive in the moderate-threat/opportunity condition than the less available alternative (in the friend condition). (See Figure 2 for a graphical depiction of the Enhancement Hypotheses.) Devaluation Hypothesis 1 is that those moderately committed to their relationship will rate the attractive alternative as less attractive than the less available alternative in the friend condition. (See Figure 1 for a graphical depiction of the Devaluation Hypotheses.)

As discussed previously, interdependence theory predicts a social comparison effect in the unavailable condition. Therefore, the friend condition provides a baseline to test an unexplored side of the perceived superiority effect. Thus, Interdependence Hypothesis 2 is that those in relationships (irrespective of their commitment level) will rate the unavailable alternative (someone in a well-established dating relationship) as less attractive than the same person portrayed as single but nonthreatening (the friend condition). (See Figure 3 for a graphical depiction of the Interdependence Hypotheses.)

By examining both single participants and those relatively low in commitment and by presenting an unavailable alternative and a low-threat/low-availability condition (friend’s ratings), we aimed to test the devaluation and enhancement hypotheses in multiple ways. In addition, our data provided another opportunity to test the devaluation hypothesis. As Bazzini and Shaffer (1999) indicated, the type of judgment should matter in the level of threat elicited. They stated,

Simply saying that someone is physically attractive is a relatively innocuous assessment that may neither threaten the relationship of an exclusive dater nor indicate any interest whatsoever in establishing a romantic relationship with the target . . . items most pertinent to relationship-maintenance or relationship seeking concerns (i.e. those assessing desirability of the target as a romantic interest) were more highly informative. (p. 167)

Based on their theorizing, we formulated Devaluation Hypothesis 2: The moderately committed would devalue the attractive available alternative on a measure of romantic appeal and not on a measure of likeability.

As the summary of hypotheses in Table 1 indicates, by comparing both singles and low-commitment daters to moderate-commitment daters under three different experimental conditions with two different dependent measures, the present study could advance our understanding of the mechanisms underlying the negative linear relationship between relationship commitment and ratings of an attractive and available other.

TABLE 1: Summary of Tests of Hypotheses

Enhancement hypotheses
1. Single participants will rate the target as more appealing in the high-availability/moderate-threat condition than in the unavailable target condition.
2. Single and low-commitment participants will rate the target as more appealing in the high-available/moderate-threat condition than in the low-available/low-threat condition.
Devaluation/calibration hypotheses
1. Moderately committed participants will rate the target as more appealing in the low-available/low-threat condition than in the high-available/moderate-threat condition.
2. Effects for the moderately committed will be specific to the high-threat dependent measure (romantic appeal of the target), not for the less threatening measure of likeability.
Interdependence hypotheses
1. Low-commitment participants will rate the unavailable alternative as less appealing than will single participants.
2. Low- and moderate-commitment participants will rate the low-available/low-threat target as more appealing than the unavailable (social comparison) target.

METHOD

Overview

Participants received a file folder containing information ostensibly describing another student along with a photograph of the student. All participants were to review the folder and then evaluate the person depicted in the folder. In the moderate, threat (also moderate relationship-seeking opportunity) condition, participants indicated what they personally thought of the target individual; these same participants were led to believe that there would be an additional phase to the experiment in which they would interact with the target. In the low-threat (also low relationship-seeking opportunity) condition, participants were asked to evaluate how they thought their friends would rate the person, with no mention of a subsequent interaction. In the unavailable condition, participants were asked to personally evaluate the person who was presented as unavailable.

Participants

Eighty-five men and 89 women were recruited from undergraduate classes. Students were contacted by telephone and asked to participate in the study. They were told that the study would take approximately 30 min, would consist of filling out some personal questionnaires, and that they would each receive \$5 for their participation. Ninety-one of the participants were in dating relationships. The median length of their relationships was 14 months, with 84 of the 91 in their relationships for at least 3 months.

The Targets

To select the male and female targets, photographs were taken of three women and three men nominated as attractive. These were rated for attractiveness by 10 university students of the opposite sex. The ratings were done on a 10-point bipolar scale ranging from 1 (*very*

unattractive) to 10 (*very attractive*). The selection was done on the basis of highest mean attractiveness rating and lowest variance. The female target received a mean rating of 7.4 ($SD = 1.5$), as compared with the two other ratings of 6.60 ($SD = 0.49$) and 6.60 ($SD = 1.02$). Although the ratings of the chosen target were somewhat more variable, the higher mean rating led us to choose this target for the study. The male target's mean rating was 7.75 ($SD = 1.39$), as compared with 6.63 ($SD = 1.49$) and 5.13 ($SD = 1.69$) for the other two prospective targets.

Commitment Level

To measure commitment level, we used the self-report measure of attitudinal commitment constructed by Lydon et al. (1999) that drew on items previously used by Rusbult (1983) and by Lydon, Pierce, and O'Regan (1997). The measure is a nine-item scale in which participants were asked to what extent they felt committed, obligated, attached, a sense of duty, and enthusiastic about their relationship. They also were asked three reversed items: to what extent they felt burdened, how relieved they would feel if the relationship were to end, and the likelihood that the relationship would end in the near future. Participants were asked to rate these eight items in terms of how they felt about their relationship, on a scale from 1 (*not at all*) to 9 (*extremely*). Participants also were asked the desired remaining length of their relationship, from 1 (*a week or so*) to 9 (*decades*). After reverse scoring the three reverse items, a mean of the nine items was calculated. The nine-item measure had very good internal consistency, $\alpha = .80$.

Dependent Variable

Following the advice of Bazzini and Shaffer (1999), we focused on responses to the attractive target that would be most likely to either elicit threat among the moderately committed or indicate interest among those low in commitment.

The subject's evaluation of the target consisted of 11 items. Each item was rated on a 9-point Likert-type scale. The first 8 items concerned general features of the target, such as positive personal qualities and physical attractiveness, as well as issues of similarity of attitudes and interests and compatibility. The romantic attraction measure consisted of the last 3 items. These addressed the subject's evaluation of the target as a potential dating partner: "In general, to what degree are you attracted to this person?", "All things considered, to what extent do you think this person would be an appealing romantic partner?", and "How interested would you be in going out on a date with this person?" In the low-threat condition, the subject was asked for their friends' evaluation of the target, that is, "How interested do you think your friends would be in going out on a date with this person?"

A factor analysis of the three items for the romantic attraction measure along with other evaluations of the target revealed that the three items loaded highly on its own factor with the loadings for the three items all .70 or greater. Moreover, a reliability analysis of the three items revealed excellent internal consistency, $\alpha = .83$, and interitem correlations of .60, .66, and .68. The average of responses to these three items was computed and labeled "romantic appeal," our primary dependent measure.

To demonstrate the discriminant validity of devaluation responses by the moderately committed in the moderate-threat condition, we also computed a measure of "likeability" from items loading on the other factor. We deleted the two items about how much one's friends might like the target and how much the target would like one's friends because these items may tap different things in the low-threat condition (how one's friend would view the target) than the other conditions. Consequently, the measure of likeability included ratings of positive personal qualities, similarity, being a fun person, interesting, and compatible. The item "physical attractiveness" was not used because it loaded on both factors.

The Procedure

Male and female participants were run separately, in groups of one to five, with same-sex experimenters and debriefers. Before being told the cover story, the participants completed three one-page scales: the Rosenberg Self Esteem Scale (Rosenberg, 1965), the attitudinal measure of commitment, and a subset of items from the Jackson Personality Inventory (Jackson, 1976). The first and last scales were used to make the commitment measure less salient because completing the commitment scale alone could increase suspicion about the nature of the study. The data from these other scales were not used in the analysis.

The experimenter then described the study to the participants, according to the cover story for their condition. Participants in the moderate-threat and unavailable conditions were told that they were participating in a three-phase "social perception" study. According to the cover story, in an earlier phase of the study, another group of participants had been photographed and had filled out some general personality and interest questionnaires. The "second phase" involved a new group of participants (the actual participants) reading a biography of one of the Phase 1 participants and rating the participant on a number of items. The "third phase," participants were told, would involve an interaction between the Phase 1 and Phase 2 participants. According to the cover story, the purpose of the study was to compare perceptions of an individual based on partial information (a photograph and a short biography) and perceptions of the same individual after a short social interaction. Thus, the participants were asked if they would be willing to return to the lab for the third phase, in which they would meet the Phase 1 participant whose photo and biography they would shortly evaluate. (All participants agreed to return for their second session.) Participants in the low-threat condition were not told anything about the study other than that it was about social perceptions.

Participants were then asked to come to the front of the room and choose one of the file folders on the front table. All of the file folders were identical and contained the same photograph and fictional description of the attractive target. The only variations in the information presented were the manipulations of the target's availability. All female participants were presented with the same photograph of an attractive male McGill University student; all male participants were presented with the same photograph of an attractive female McGill University student.

Along with the photograph, participants were given a fictitious biographical description of the target's personality and interests. The biography was intended to be general and to depict the target as active, warm, open, and moderately sociable. The target was described as enjoying music, movies, traveling, and reading. Overall, the goal of the biography was to depict the target as moderately positive in terms of personal characteristics.

The biography also included the manipulation for availability/unavailability of the target. In the moderate and low-threat conditions, the male target described himself as "comfortable expressing his feelings openly with his family and close friends." The last line of the biography read, "He is currently not involved in a romantic relationship." In the unavailable condition, the above lines were altered to read, "comfortable expressing his feelings openly with his girlfriend and close friends" and "He is currently living with his girlfriend of three years."

The female target's description was identical; the only change was in the gender.

After reading the biography, participants were asked to complete the evaluation form. When all the participants had finished, they filled out a postexperimental impressions form. The first questions on the form asked participants how comfortable and anxious they had felt during the study. They also were asked if they had any concerns or questions about the study and what they believed was the study's purpose. These questions were asked to assess the subject's belief of the cover story. The form also contained a manipulation check to verify that the subject noticed the availability or unavailability of the target. The last item on the form asked participants their sexual preference.

After completing the postexperimental form, participants were debriefed by a same-sex experimenter, paid the remuneration of \$5, and thanked for their participation. In debriefing, one participant could not remember the relationship status of the target, two others thought that their ethnicity may have influenced their ratings, and four others thought that the study was about relationships and what makes for a good match. Excluding these participants from analyses made virtually no difference in the results (p values differing only at the third decimal), so they were retained for the analyses reported below.

RESULTS

Overview

We first examined the correlations between relationship commitment and attraction (i.e., romantic appeal) within each of the three experimental conditions for participants who were involved in romantic relationships. We then conducted a series of relationship status (single, low commitment, moderate commitment) by experimental condition ANOVAs to test enhancement and devaluation/calibration hypotheses. With the first ANOVA, we tested the enhancement hypothesis by comparing ratings in the unavailable alternative condition with the highly available/moderate-threat condition. With the second ANOVA, we tested both enhancement and devaluation by comparing ratings in the low-availability/low-threat (friend) condition with the high-availability/moderate-threat condition. A third ANOVA was performed replacing romantic appeal with likeability as an additional discriminant validity test of devaluation. Finally, an ANOVA was performed comparing the unavailable and low-availability/low-threat conditions to test the interdependence theory prediction that those in relationships will derogate a social comparison target.

Preliminary Analyses

We examined the correlation between relationship commitment and attraction separately for the moderate-threat (personal evaluation) condition, the low-threat (friend) condition, and the unavailable condition. As expected, for those in relationships, relationship commitment was negatively associated with attraction ratings in the moderate-threat condition, $r(33) = -.44$, $p < .01$, but it was not reliably associated with attraction ratings in the low-threat condition, $r(23) = -.16$, *ns*, or in the unavailable condition, $r(31) = -.26$, *ns*. Within-subject correlations were calculated by multiplying the standardized scores for relationship commitment and attraction. In the moderate-threat condition, the correlation was $-.47$, whereas in the low-threat condition it was $-.08$ and in the unavailable condition it was $-.29$, again the latter two being nonsignificant. Thus, consistent with both the devaluation and the enhancement hypotheses, relationship commitment was negatively associated with attraction when threat and relationship-seeking potential were present. The critical question was whether this negative correlation was due to those low in commitment increasing their attraction in the moderate-threat condition (enhancement hypothesis) or to those high in commitment decreasing their attraction in this condition.

The Unavailable Alternative:

A Test of Enhancement

A 2 (highly available vs. unavailable) \times 3 (relationship status: single, low commitment, moderate commitment) ANOVA was performed analyzing the romantic appeal of the target. Main effects were found for both availability, $F(1, 118) = 4.01$, $p < .05$, and relationship status, $F(2, 118) = 14.79$, $p < .01$, such that the available target was rated as more appealing than the unavailable target and single participants rated the target as more appealing than those in relationships. These main effects were not qualified by a Relationship Status \times Availability interaction, $F(2, 118) = 1.27$, *ns*. Contrary to the enhancement hypothesis, single participants did not rate the highly available alternative ($M = 6.15$) as more appealing than the unavailable alternative ($M = 5.97$), $t < 1$. However, consistent with both enhancement and interdependence hypotheses, low-commitment daters did rate the available alternative as more appealing ($M = 5.81$) than the unavailable alternative ($M = 4.53$), $t(118) = 2.23$, $p < .05$.

Devaluation Versus Enhancement:

The Calibration Test

A 3 (relationship status: single, low commitment, moderate commitment) \times 2 (threat: low, moderate) ANOVA was performed analyzing the romantic appeal of the target. Main effects were found for both relation-

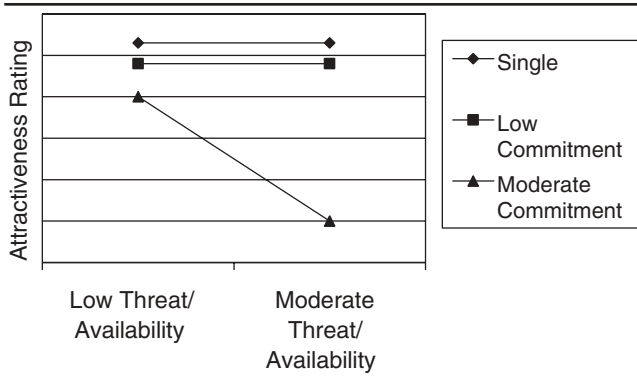


Figure 1 Devaluation hypothesis.

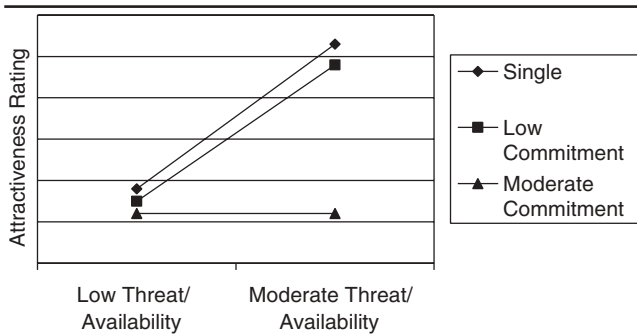


Figure 2 Enhancement hypothesis.

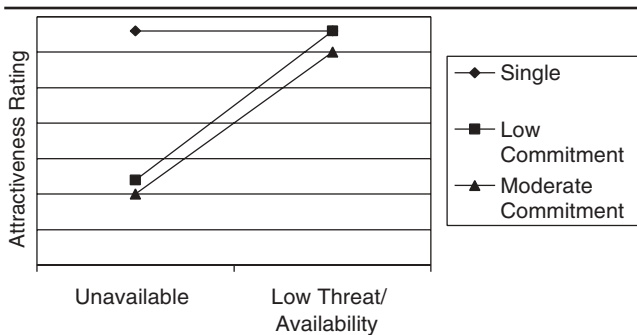


Figure 3 Interdependence hypothesis.

ship status, $F(2, 103) = 3.34, p < .05$, and threat, $F(1, 103) = 10.89, p < .01$. However, these main effects were qualified by the predicted interaction between relationship status and threat level, $F(2, 103) = 3.89, p < .05$. As seen in Figure 4, the pattern of results is highly consistent with those predicted by devaluation and calibration and depicted in Figure 1.

Another way to examine these results was to test for two contrasts. The enhancement hypothesis would predict that those single and low in commitment would provide higher ratings in the high-availability/moderate-

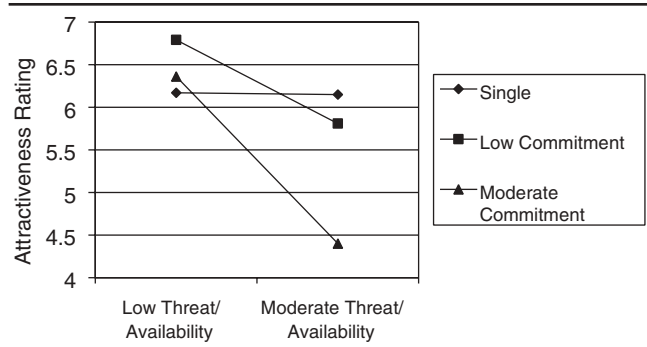


Figure 4 Results with low-threat condition: Devaluation versus enhancement.

threat condition than the low-availability/low-threat condition. Contrasting those single or low in commitment in the high-availability/moderate-threat condition against the other four conditions (singles and low commitment under low availability/low threat and moderate commitment under both threat conditions) resulted in a null result, $F < 1$. The devaluation and calibration hypotheses were tested by contrasting the moderately committed in the moderate-threat condition against the other five conditions. This resulted in a significant contrast, $F(1, 103) = 23.52, p < .001$. Those moderately committed gave ratings to the target ($M = 4.40$) that were more than 1 standard deviation below the mean level ratings of the other five groups ($M = 6.25$).

The contrasts were repeated separately for each of the three items contributing to the romantic appeal measure. The predicted contrast for devaluation/calibration was significant for ratings of general attraction, romantic appeal, and potential as a dating partner, all $ps < .01$. Again, there were no significant contrasts for the enhancement hypothesis, all $ps > .20$. In addition, post hoc comparisons were examined and the moderately committed in the moderate-threat condition were found to have provided lower ratings of romantic appeal than each of the other five conditions, all $ps < .01$. All other possible comparisons among the remaining five groups did not reveal a single difference approaching significance, $ps > .15$.^{1,2}

Finally, the 3×2 ANOVA was repeated with the measure of likeability. Main effects and the interaction were not significant, all $Fs < 1$.

The Unavailable

Alternative Versus Low Threat:

A Test of Comparison Level

A 3 (relationship status: single, low commitment, moderate commitment) \times 2 (low availability/low threat vs. unavailable) ANOVA was performed analyzing the romantic appeal of the target. Main effects for relationship status, $F(2, 108) = 2.83, p < .10$, and experimental

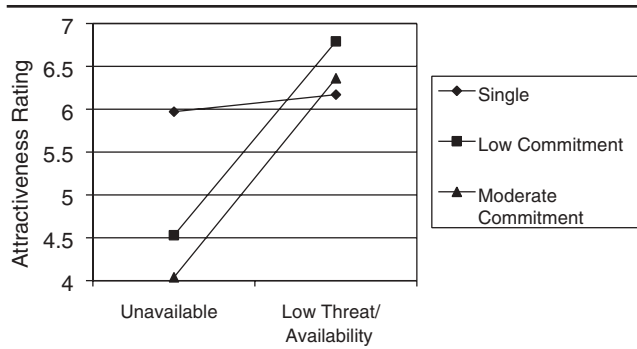


Figure 5 Results with unavailable condition: A test of comparison level.

TABLE 2: Mean Ratings of the Romantic Appeal of the Opposite Sex Target by Experimental Condition and Commitment Level

Attractive Alternative	Single	Low Commitment	Moderate Commitment
Low threat/low availability	6.17	6.79	6.36
Moderate threat/high availability	6.15	5.81	4.40
Unavailable	5.97	4.53	4.04

condition, $F(1, 108) = 25.00, p < .01$, were qualified by an interaction between relationship status and condition, $F(2, 108) = 6.04, p < .01$. Whereas single participants did not rate the target differently between conditions, $t < 1$, consistent with interdependence theory predictions, those in romantic relationships, irrespective of their commitment level, rated the target negatively when the target was presented as unavailable—as a social comparison target. As seen in Figure 5, for those moderately committed, the unavailable target was rated more negatively ($M = 4.04$) than in the low-threat friend perspective condition ($M = 6.36$), $p < .01$. For those low in commitment, the unavailable target was rated more negatively ($M = 4.53$) than in the low-threat friend perspective condition ($M = 6.79$), $p < .05$. Moreover, those low in commitment rated the unavailable target as less appealing ($M = 4.43$) than singles rated the same target ($M = 5.97$), $p < .01$. Table 2 shows the mean ratings of the target provided by single, low, and moderately-committed participants in all three conditions.

DISCUSSION

In this study, the devaluation and calibration hypotheses were tested by examining six groups of participants in terms of their attraction to an available attractive person of the opposite sex. Only one of these groups evaluated the target in a distinctly different way. When responding from their own perspective, those moderately commit-

ted to their relationship rated the attractive person as much less attractive than when responding with the comfort from the perspective of a friend.

In calibration terms, considering the romantic appeal of an attractive available alternative presented a moderate level of threat to those in relationships. Those moderately committed met the threat and devalued the alternative. In contrast, those low in commitment were not sufficiently committed to their relationship to defend and, as a result, they rated the alternative as positively as did single people. This pattern of data is consistent with the original devaluation formulation (Johnson & Rusbult, 1989). Both calibration and devaluation hypotheses are predicated on the same underlying notion that attractive alternatives present threats to relationship commitment. The difference between the two is that the calibration hypothesis makes specific predictions about when one will defend against relationship threats. Whereas some have assumed a negative linear relation between commitment and the evaluation of alternatives, the calibration hypothesis qualifies this by showing that relationship defenses function in a curvilinear, inverted U fashion. That is, when the level of threat is below or above the level of commitment, there will not be a cognitive or behavioral defense of the relationship.

The enhancement hypothesis is based more on a strategic self-persuasion approach. Because one has the opportunity to have a social interaction with an available alternative, one exaggerates the appeal of the alternative. When participants were in the moderate-threat/high-availability condition, they believed they had an opportunity for a future interaction with the target; when they were in the low-threat/low-availability condition, this opportunity was not available. Despite what would seem to be an important difference for “relationship-seekers,” single and low-commitment participants did not give different ratings of the target in these two situations. Moreover, single participants failed to rate an attractive available target as more appealing than an attractive unavailable target; these data also call into question the belief that relationship seekers exaggerate the appeal of available individuals.

However, as Bazzini and Shaffer (1999) noted, evidence does exist that those who are not in relationships do in fact exaggerate the attractiveness of available others. Madey, Simo, Dillworth, and Kemper's (1996) “closing time” effect demonstrated that single peoples' evaluations of opposite sex bar patrons increased as the evening progressed, whereas the judgments of those in relationships stayed constant.

There are at least two ways in which the closing time studies (Gladue & Delaney, 1990; Madey et al., 1996; Pennebaker, 1979) differ from the devaluation and

enhancement studies (Bazzini & Shaffer, 1999; Johnson & Rusbult, 1989; Lydon et al., 1999). First, in the closing time studies, there may be a sense of decreasing opportunity and even decreasing availability of alternatives for relationship-seeking single people—scarcity could certainly breed attraction.

A second difference is that in the closing time studies, there is an array of opposite-sex bar patrons of presumably variable attractiveness. Research on the better-than-average effect has been extended to the relationship domain such that most everyone in a dating relationship wants to believe that their partner is better than average in all sorts of respects (Van Lange & Rusbult, 1995; Van Lange, Rusbult, Semin-Goossens, Goerts, & Stalpers, 1999). The better-than-average effect may apply to relationship seekers as well as relationship maintainers. As the time to procrastinate diminishes, a relationship-seeking single person may need to consider his or her options more seriously and may want to believe that the available alternatives are better than average. In lab studies of devaluation and calibration, the alternative is designed to be better than average (to create a relationship threat). Thus, relationship seekers do not need to exaggerate the attractiveness of the alternative to rest assured that they are seeking a better-than-average alternative.

That said, in the current study, single and low-commitment participants certainly were not at ceiling in their judgments of the alternative. With 5 as the midpoint on a 9-point scale, the grand mean (save the moderate commitment, moderate threat cell) was 6.25. What is more remarkable is that the moderately committed rated alternatives designed to be “attractive” as 4.40, below the midpoint!

Although we believe that these data, in addition to previous studies (Johnson & Rusbult, 1989; Lydon et al., 1999), provide a reasonably good accumulation of evidence in support of calibration and devaluation hypotheses, we expect that variations on the closing time effect might be bottled in the lab to demonstrate the complementary process of enhancement. Just as those in relationships show evidence of exaggerating the qualities of their partner and their relationship, it would be interesting to show how even at the very outset, those seeking relationships engage in the same illusory process.

It is important to note that the alternative being judged is just one of three critical elements operating conjointly in determining relationship maintenance responses such as the devaluation of the attractive alternative. The second element is the type of judgment being made, which can contribute to the level and directness of the threat. Consistent with Bazzini and Shaffer (1999), we found that those committed to their dating

relationship were more willing to concede that the alternative had some positive personality traits than to acknowledge that they were “attracted” to this person.

The third element, in addition to the threat stimulus (the attractive alternative) and the threat response (the type of evaluation being requested), is the level of commitment. To date, we have operationalized those dating and high on a commitment scale as moderately committed, as compared to those who are married and high on a commitment scale. This is, in part, a recognition of the limited sensitivity of measures assessing commitment. We do not rule out the possibility that there are some unmarried people who are highly committed to their relationship, but existing self-report measures of commitment may not be able to make the fine-grained distinction. It would be useful if a fingerprint of high-commitment married people could be made and then used to identify unmarries with the same fingerprint. Then one could examine how well various self-report measures of commitment do in identifying unmarries with high commitment.

Whereas commitment theorists understandably focus on the effects of high levels of commitment, the current study reminds us that relationship maintenance processes also may be at work even among those low in commitment. Consistent with commitment theories, those low in commitment did not devalue the attractive alternative (and they did not enhance the attractive alternative). However, there was evidence that they devalued a social comparison target—a person in an ongoing romantic relationship such as their own. The explanation from interdependence theory is that the social comparison target may challenge a person’s comparison level—their felt satisfaction with their own romantic relationship. These findings are complementary to those on the perceived superiority effect in romantic relationships: Just as people exaggerate the positivity of their own partners, so too may they exaggerate the negativity of others’ partners.

In isolation, our finding that low-commitment participants preferred the available alternative to the unavailable alternative could be interpreted as evidence of enhancement. However, the enhancement hypothesis cannot explain why single people did not prefer an available target to an unavailable one (after all, single people should be the ultimate relationship seekers), and it cannot account for our finding that low-commitment participants did not prefer an attractive available target they had a chance to meet to an attractive available target they did not have a chance to meet. By studying single, low-commitment, and moderately committed participants, and by examining their responses under three different experimental conditions, this study allowed us to con-

tribute to the literature on relationship protection mechanisms by conducting a more complete test of devaluation and enhancement hypotheses than did previous studies.

Devaluation is just one of an array of relationship maintenance responses exhibited in response to relationship threats. What is especially remarkable about the devaluation effect is the clear evidence that, because of relationship motives, a person may transcend hedonic self-interest and potential self-gratification to sustain their relationship. When not with the one they love, people may not be so quick to love the one they are with.

NOTES

1. The commitment measure used in the above analyses was the same measure as in our earlier work (Lydon, Meana, Sepinwall, Richards, & Mayman, 1999). However, in this sample, two items, duty and obligation, loaded on a separate factor, and these two items actually lowered the internal consistency of the overall commitment measure. Reanalyzing the data without these two items produced the same set of results. In fact, the two-way interaction was even stronger with the shorter measure.

2. To demonstrate the appropriateness of the friend rating method as a low-threat condition, additional data were collected. Specifically, it is possible that the higher ratings in the friend condition than the available condition might not reflect lowered threat but rather participants' thinking of a single friend (rather than a friend who was also in a dating relationship): People may possess theories that single friends would enhance the target's attractiveness. To address this valid concern, we conducted an additional study in which 125 participants viewed a photograph of a member of the opposite sex either low or high in attractiveness and rated this target from the perspective of a friend using the identical questionnaire as in the original study. Participants differentiated between the high- and low-attractiveness targets, indicating their friend would find the high-attractiveness target more appealing, $F(1, 119) = 9.83, p < .01$. Participants also were asked to indicate their friend's relationship status. Indeed, more participants thought of a single friend (70) than a friend in a dating relationship (23 nonexclusive daters and 32 exclusive daters). However, friends' relationship status did not significantly affect participants' ratings of the targets, $F(2, 119) = 1.69, p = .19$, and it did not interact with attractiveness of the target, $F(2, 119) = 1.21, p = .30$. Means for the high-attractiveness target were 5.89 (single friend), 6.09 (low-commitment friend), and 5.81 (high-commitment friend). Because friends' relationship status did not affect ratings, the original findings are unlikely to be dependent on participants' thinking of single friends.

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