OVERCOMING ACCEPTANCE INSENSITIVITY:

INCREASING LOW SELF-ESTEEM INDIVIDUALS' PERCEPTIONS OF VALUE TO THEIR
PARTNERS

by

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Abstract

People with low self-esteem (LSEs) often have doubts about how much their romantic partners love and value them. These doubts, which undermine their relationships, are difficult to overcome because LSEs tend to downplay the meaning of positive behaviour and resist positive feedback from their partners. In Study 1, I provided evidence for the notion that LSEs' "insensitivity" to acceptance is a form of motivated self-protection, rather than a pervasive negative bias. In Studies 2-4, I investigated whether LSEs could be induced to take their partners' kind words to heart by manipulating how abstractly they described a recent compliment. LSEs felt more positively about the compliments, themselves, and their relationships – as positively as HSEs felt – when they were encouraged to describe the meaning and significance of the compliments. The positive effects of this abstract reframing intervention were still evident two weeks later, in both participants' self-reported thoughts and feelings about their relationships and in partners' reports of participants' behaviour towards them. Study 5 demonstrated that the abstract reframing intervention prevented LSEs from taking a relationship threat to heart and lashing out at their partners. Taken together, the present studies show that when prompted to reframe affirmations from their partners, LSEs feel just as secure and satisfied with their romantic relationships and behave as positively towards their partners as HSEs do.

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Introduction

Getting involved in a romantic relationship is a risky business. Such relationships have enormous potential to invoke positive emotions, affirm oneself as valuable, and create a deep and lasting connection with another human being. However, they also have the potential to invoke negative emotions, create doubts about one's worthiness, and produce the devastation of a severed bond of intimacy. How do people cope with this quandary? Some people are able downplay the risks and enter wholeheartedly into romantic unions. They see conflicts as opportunities to learn more about one another and strengthen the relationship. These "relationship-promotive" people focus primarily on gaining the positive outcomes of a secure and satisfying romantic relationship. Other people are more cautious, giving more of themselves to the relationship in small increments, calibrated to what they perceive their partner's level of commitment to be. They view even minor disagreements as threatening to the relationship and respond by distancing themselves from their partners. These "self-protective" people focus primarily on avoiding the negative outcomes associated with a decrease in a partner's affection or loss of the relationship altogether (Murray, Holmes, & Collins, 2006).

These differing relationship approaches have a self-fulfilling nature. Relationship-promotive individuals tend to secure more positive relationship outcomes. Self-protective individuals, on the other hand, often end up eliciting the rejection they tried so hard to avoid (Cameron, Stinson, Gaetz, & Balchen, 2008; Downey, Freitas, Michaelis, & Khouri, 1998; Murray et al., 2006; Stinson, Wood, Cameron, Holmes, & Gaucher, 2008). The strongest, most satisfying relationships are those in which partners can set aside self-protection goals and risk behaving in relationship-promotive ways that increase closeness and dependence (Murray et al., 2006; Overall & Sibley, 2008). If people are reluctant to be responsive to a partner's needs, they are less likely to believe that their partners are responsive to them, which leads to decreased satisfaction with their relationships (Lemay, Clark, & Feeney, 2007). In this dissertation I attempt to understand the psychology of these self-protective individuals and break the cycle of insecurity in which they often find themselves ensconced.

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The Role of Self-Esteem in Romantic Relationships

What determines which of these two approaches – self-protective or relationship-promotive – people adopt in their romantic relationships? Certainly there are factors specific to a particular partner and circumstances that nudge people in one direction or the other. The focus of this dissertation is an individual difference variable that is carried throughout various relationships: self-esteem.

People project judgments of their own worthiness onto their perceptions of other people's judgments about them. There is little evidence to suggest that individuals with high self-esteem (HSEs) are actually more liked than are individuals with low self-esteem (LSEs) (as rated by peers, teachers, or laboratory interaction partners). Nor is there any reliable evidence of objective differences in intelligence, job performance, etc. associated with self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003). However, relative to HSEs, LSEs *believe* that they are less valuable and less liked (Leary, Tambor, Terdal, & Downs, 1995). In romantic relationships, LSEs underestimate how much their partners love and value them (Murray, Holmes, & Griffin, 2000; Murray, Holmes, Griffin, Bellavia, & Rose, 2001). LSEs' self-protective approach to their relationships allows this erroneous judgment to persist.

It is risky to assume that your partner values you highly. Being wrong puts you in a vulnerable position and could be very painful (Murray et al., 2006). LSEs approach their relationships in ways that protect them from this kind of costly mistake. They err on the side of caution when drawing conclusions about the meaning of their partner's behaviour. LSEs are particularly attentive to rejection cues (Dandenau, Baldwin, Baccus, Sakellaropolou, & Pruessner, 2007). They are very quick to perceive signs of rejection from their romantic partners (Murray, Rose, Bellavia, Holmes, & Kusche, 2002), even when none exist (e.g., their partner is in a bad mood that was triggered by an event unrelated to the relationship; Murray, Bellavia, Rose, & Griffin, 2003). Conversely, LSEs often fail to perceive signs of acceptance or to embrace expressions of acceptance (Cameron et al., 2008; Murray et al., 2006; see also Campbell, Simpson, Boldry, & Kashy, 2005 for a similar conclusion regarding anxiously attached individuals). LSEs' rejection sensitivity has been well-studied; their acceptance *in*sensitivity has received little

attention in past research. In this dissertation I focus on LSEs' dismissal of positive partner behaviours as a point of intervention.

Self-Esteem and the Interpretation of Positive Partner Behaviours

It does not appear that LSEs are the recipients of less positive behaviours than are HSEs. Rather, the problem is in the interpretation. There are several studies supporting the idea that LSEs are too hesitant to read abstract, generalized meaning into their partners' positive behaviours. Researchers have used moderating variables that have been shown to be reasonable proxies for LSE, such as attachment anxiety (Brennan & Morris, 1997; Collins & Read, 1990) and relationship dissatisfaction (Fincham & Bradbury, 1993; Murray, Holmes, & Griffin, 1996). In one study, anxiously attached individuals rated their partners' behaviour as less supportive than did secure participants in a stressful situation, but observers rated the partners as equally supportive (Collins & Feeney, 2004). In another study, LSEs reported seeing significantly fewer acceptance cues than did HSEs when they believed that a confederate's behaviour was directed at them. When they thought the same behaviour was directed at someone else, however, LSEs saw as many acceptance cues as did HSEs (Cameron et al., 2008).

When asked directly to make attributions for partners' positive behaviours, dissatisfied individuals were less likely to report that such behaviours were global in their implications or likely to recur (Camper, Jacobson, Holtzworth-Munroe, & Schamling, 1988), even though they reported that these behaviours had a positive impact on them (Holtzworth-Munroe & Jacobson, 1985). Insecure individuals who expressed emotional vulnerabilities to their partners believed that their partners expressed positive regard (and concealed negative regard) simply to avoid upsetting them (Lemay & Clark, in press). Relative to securely attached individuals, anxiously attached individuals have also been shown to make more relationship-threatening attributions for their partners' positive behaviours, for example, that their partner was motivated by selfish concerns rather than genuine love and affection. However, anxiously attached individuals were no less likely than secures to report being happy about these behaviours (Collins, Ford, Guichard, & Allard, 2006). Some correlational research has suggested that when people perceive increases in their partner's positive behaviours over a one-month period, their attachment anxiety

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decreases (Butzer & Campbell, 2008). People who are distressed about their romantic relationships do seem to appreciate positive feedback from their partners. However, their reluctance to make meaningful generalizations from positive feedback interferes with their ability to benefit fully from it.

Possessing less positive and certain self-conceptions than HSEs (Campbell et al., 1996), LSEs might be expected to embrace positive feedback given in an experimental setting. If they doubt their possession of a particular trait, one would think they would be pleased to hear that they their standing on that trait is relatively high in the population. In several studies, however, providing LSEs with positive feedback actually backfired. After success on a bogus intelligence test, compared to neutral or no feedback, LSEs reported more anxiety generally, and specifically about acceptance from their family, friends, and romantic partners (Logel, Spencer, Wood, Zanna, & Holmes, 2008; Murray et al., 1998; Wood, Heimpel, Newby-Clark, & Ross, 2005). Positive feedback on a relationship trait had similar effects: LSEs reported more insecurity about their relationship and evaluated it more negatively after being told that they were high in "considerateness" (Murray et al., 1998). Similar results have been found using attachment anxiety as a moderating variable: Compared to a no feedback condition, anxious participants paradoxically viewed their relationships more pessimistically after being informed that their partners viewed them as exceptionally warm, attractive, and intelligent (Peach & MacDonald, 2004). In contrast, in all of these studies, positive feedback benefited secure, HSE participants. They felt more positively about their relationships after receiving positive feedback.

Why are the people most in need of acceptance, such as LSEs (Leary et al., 1995; Rudich & Vallacher, 1999), the least likely to find it? Why do LSEs react unfavorably when they are directly told that they are worthy and desirable? Drawing from the Murray et al. (2006) risk regulation model, I suggest that LSEs tend to minimize the meaning of positive events in their relationships to avoid feeling hurt, disappointed, and foolish if they overestimate their value. Consistent with other researchers' speculations (Wood, Anthony, & Foddis, 2006), I suggest that positive feedback activates self-evaluation concerns for LSEs. They may worry that success will raise others' expectations of them; they are not confident they will be able to meet these expectations in the future (Logel et al., 2008; Murray, Holmes,

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MacDonald, & Ellsworth, 1998). They may also be concerned that such overly positive expectations will make interactions more difficult because their limitations will not be taken into account (Swann, Rentfrow, & Guinn, 2003). Further, simply focusing on strengths may remind LSEs of their faults (Showers, 1992), and highlight their belief that acceptance from their partners is conditional on their maintenance of virtues (Baldwin & Sinclair, 1996). Therefore, LSEs become anxious that they cannot live up to such a positive self-image and imagine disappointing and being rejected by close others when the truth is revealed. It may simply be too much of a risk, then, for LSEs to conclude that their partners' positive regard and love are genuine, secure, and enduring when they can easily think of personal weaknesses that will most assuredly come to light and jeopardize their acceptance.

Consequences of Unwarranted Insecurities

LSEs' tendencies to maximize the meaning of partners' negative behaviours and minimize the meaning of partners' positive behaviours likely contribute to their underestimation of how positively their partners view them (in both married and dating samples; Murray et al., 2000). The consequences of these unwarranted insecurities for relationship well-being are well documented. LSEs tend to report less satisfaction than do HSEs in both marital and dating relationships (Fincham & Bradbury, 1993; Murray et al., 1996). There is no evidence, however, to suggest that they attract less desirable partners (Murray et al., 1996; Murray et al., 2000). Instead, LSEs' relatively negative evaluations of their partners seem to be self-protective responses to their beliefs that their partners think relatively negatively of them (Murray et al., 2000; Murray et al., 2001).

LSEs react to various potential threats (e.g., guilt about a transgression, a conflict with their partner) with reduced security in their partners' acceptance (Murray et al., 1998; 2002; 2003). Relationships in which people view their partner's commitment as fluctuating over time, such as in response to negative events, tend to be less stable (Arriaga, Reed, Goodfriend, & Agnew, 2006). One reason might be that when feeling acutely insecure, LSEs protect themselves from further psychological hurt by distancing themselves from their partner and devaluing the relationship–the less valuable the relationship is to them the less painful it is to lose. On the other hand, HSEs tend to respond to threats by

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embellishing their partners' acceptance and drawing closer to the relationship (Murray et al.,1998; 2002; 2003). Ironically, LSEs are initially accepted and valued by their romantic partners as much as are HSEs, but their oversensitivity to rejection manifests in defensive, self-protective behaviours that over time, tarnish their partners' rosy views and ultimately, undermine the well-being of the relationship (Murray, Bellavia, et al., 2003; Murray, Griffin, Rose, & Bellavia, 2003).

Overview of Studies

The only past attempts that succeeded in making LSEs feel better about their relationships seem to have bypassed participants' self-evaluation concerns in one way or another (e.g., describing a value they shared with their partner, Lomore, Spencer, & Holmes, 2007; focusing on a fault in their partner, Murray et al., 2005). The goal of the current research was to develop a cognitive reframing intervention that LSEs could use to generalize from partner affirmations (in the form of compliments) without activating potentially destructive self-evaluative processes. My hope was that if LSEs could recognize their partners' acceptance more easily, they would be willing to approach their relationships in a more relationship-promotive, and less self-protective manner.

Before introducing my cognitive reframing intervention I wanted to demonstrate that LSEs do not harbour a general negative bias about compliments. Rather, their tendency to downplay positive feedback is a motivated self-protective process, as the risk regulation model would predict. Thus, I suspected they would be more likely to dismiss compliments directed at themselves than at others, and this is what I test in Study 1. In Studies 2 through 4, I demonstrate the effectiveness of my cognitive reframing intervention and establish its boundaries by contrasting it with other, subtly different manipulations. In these three studies participants completed a follow-up questionnaire two to three weeks after, allowing me to examine whether the intervention had lasting effects. In Study 4, participants' partners also completed a questionnaire at the time of follow-up to assess whether that the changes participants report in their perceptions of the relationship are reflected in changes in behaviour that are noticed by their partners. Finally, in Study 5, I show that increasing LSEs' security by reframing compliments prevents them from engaging in self-protective, relationship-destructive processes when threatened.

The focus of my studies is LSEs. I did not expect HSEs to be affected by the manipulations. They generally feel quite confident that they are valued and so are willing to risk taking positive feedback to heart and seeking closeness and connection with their partners without further prompting from experimental manipulations. I included them in all studies as a comparison group to show that they naturally frame compliments from partners in a relatively broad way. This is likely part of what makes them feel more secure than LSEs.

<p align="center">Study 1: Perceptions of Compliments about Self Vs. Other</p>

In Study 1, some participants imagined receiving a particular compliment from their romantic partner, and other participants imagined a fictional other person receiving a compliment from their fictional partner. My hypothesis was that LSEs would be as positive as HSEs about a compliment given to another person, but that LSEs would be less positive than HSEs about a compliment given to themselves. I suspected that LSEs do not have an overarching belief that positive feedback given from one partner to another is generally insincere and undeserved. Rather, I believe they are motivated to dismiss positive feedback from their own partners to protect themselves from negative feelings. They are less likely to experience disappointment if they avoid getting their hopes up that they are truly valued. As well, they are less likely to experience anxiety about disappointing their partners if they do not believe their partners have high expectations of them.

<p align="center">*Method*</p>

Participants and Procedure

Eighty-seven psychology students in romantic relationships participated in a study of "Relationship Perceptions" in exchange for course credit. One participant was excluded for not fully completing the materials. The remaining sample of 86 consisted of 22 men and 64 women. Mean age was 21 years and mean relationship length was 24 months. The majority of participants (62) indicated that they were in an "exclusive dating" relationship. Eight individuals reported their relationship status as "casual dating," 11 were "living together," 2 were "engaged," and 3 were "married."

The entire study was completed online. Participants first completed some personality scales, then received a hypothetical compliment scenario and answered several questions about the compliment. At the end they provided demographic information.

Trait self-esteem. Participants responded to the 10 Rosenberg (1965) Self-Esteem items on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) ($\alpha = .92$).[1]

Compliment manipulation. Participants in the own compliment condition ($N = 40$) were asked to "Imagine yourself in the given situation, and then answer the following questions according to how you think you would respond in that situation." The situation they were given was as follows:

> Imagine that you have just received a high mark on a midterm in one of your classes. You had studied a lot for this midterm, but found it very difficult and so you weren't sure you did that well. Your mark is much higher than you expected and so you are very pleased with it. When you tell your romantic partner about this test mark, he [she] says "That's awesome! I'm proud of you. You are really intelligent and hard-working!"

Participants then wrote a short paragraph about how they thought they would feel upon receiving this compliment. These paragraphs were coded for acceptance and rejection of the compliment, both on 5-point scales.

Participants in the other's compliment condition ($N = 46$) were asked to "Imagine two people, Jane and Max, involved in the given situation, and then answer the following questions according to how you think you Jane [Max] would respond in that situation." The scenario they read was the same as that in the own compliment condition except that the person receiving the high mark and the compliment was Jane (for female participants) or Max (for male participants).

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[1] Participants also completed an adapted version of Brennan, Clark, & Shaver's (1998) Experience in Close Relationship scale to measure attachment style in this and all other studies. This was included both for exploratory purpose and to prevent participants from focusing on the self-esteem measure as our primary moderating variable. Attachment style did not moderate any results and so will not be discussed further.

Participants then wrote a short paragraph about how they thought Jane [Max] would feel about receiving this compliment. These paragraphs were also coded for acceptance and rejection of the compliment.

Positive feelings about the compliment. Participants rated how happy, secure, valuable, and accepted they thought the compliment would make them/Jane/Max feel, on a scale of 1 (*not at all*) to 7 (*extremely*), $\alpha = 85$.

Additional compliment questions. Another six items rated on 7-point scales were analyzed separately: how meaningful would the compliment be, how significant would the compliment be, how likely is it that the partner would say something like this again in the future, how broad would the partner's praise be, how sincere would the partner be, and how deserving would the recipient of the compliment be.

Coding. Two coders who were blind to participants' self-esteem rated participants' one-paragraph descriptions of how they would feel about the compliment in terms of how accepting they were of the compliment (e.g., "I would feel ecstatic") and how rejecting they were of the compliment (e.g., "I would not feel very special since I have heard her saying these things a lot.") Both items were rated on 5-point scales ranging from 1 (*not at all*) to 5 (*extremely*). The correlations between coders' ratings were high for both acceptance ($r(87) = .74, p < .01$) and rejection ($r(87) = .88, p < .01$).

Results

All dependent variables were regressed on effect-coded condition (own compliment vs. other compliment), SE (centered), and the condition x SE interaction (according to Aiken & West, 1996). Additional analyses were conducted with gender as a variable (included as a main effect, as a 2-way interaction with condition and with self-esteem, and as a 3-way interaction with both condition and self-esteem). Simple effects were conducted with HSE and LSE re-centered at 1 SD above or below the mean, respectively. Predicted values are presented in Table 1. I hypothesized that LSEs would be more negative and dismissing of the compliment than HSEs when the compliment was about them, but not when it was about a hypothetical other.

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Positive feelings about the compliment. There was a main effect of SE (β = .57, $t(78)$ = 5.89, $p <$ .01) and a condition x SE x gender interaction (β = .23, $t(78)$ = 2.35, $p < .05$) on positive feelings. Simple effects analysis revealed that for both men and women, the effect of SE was significant in both conditions (for men, β = 1.15, $t(78)$ = 11.02, $p < .01$ for own compliment condition and β = .29, $t(78)$ = 2.76, $p < .01$ for other compliment condition; for women, β = .41, $t(78)$ = 4.35, $p < .01$ for own compliment condition and β = .53, $t(78)$ = 5.55, $p < .01$ for other compliment condition). HSEs reported that the compliment was more positive than did LSEs regardless of whether the compliment was directed at them or at someone else. In addition, LSE men were significantly less positive about the compliment when it was addressed to them than when it was addressed to a fictional other (β = .64, $t(78)$ = 12.97, $p < .01$). LSE women did not differ between conditions, nor did HSEs of either gender.

Additional compliment questions. Gender did not interact with condition and SE on any of the other compliment questions, so gender was dropped to simplify these regression analyses.

On the measure of deservingness of the compliment, there were main effects of both condition (β = -.28, $t(82)$ = -3.06, $p < .01$) and SE (β = .35, $t(82)$ = 3.87, $p < .01$), that were qualified by a condition x SE interaction (β = .34, $t(82)$ = 3.73, $p < .01$) (See Fig. 1). LSEs reported that compliments they received were less deserved than were compliments that others received (β = .62, $t(82)$ = 4.82, $p < .01$). LSEs did not differ from HSEs when it came to judging deservingness of compliments directed to other people (β = .01, *ns*), but relative to HSEs, LSEs indicated that they were personally less deserving of the hypothetical compliment (β = .70, $t(82)$ = 5.21, $p < .01$).

In terms of how broad the praise was thought to be, there was a main effect of SE (β = .28, $t(82)$ = 2.70, $p < .01$) qualified by a marginal condition x SE interaction (β = .18, $t(82)$ = 1.77, $p = .08$). Similar to the pattern of results for deservingness, LSEs reported that compliments others received were broader (i.e. said more about the person than about the behaviour) than were compliments they received (β = .31, $t(82)$ = 2.11, $p < .05$). Relative to HSEs, LSEs reported compliments they received were less broad (β =

.46, $t(82) = 3.07$, $p < .01$), but LSEs and HSEs did not differ when judging breadth of compliments directed to other people ($\beta = .10$, ns).

On the measure of sincerity of the compliment, there was a main effect of SE ($\beta = .20$, $t(82) = 1.92$, $p < .06$) and a condition x SE interaction ($\beta = .30$, $t(82) = 2.90$, $p < .01$). Again the effect of SE was significant in the own compliment condition ($\beta = .50$, $t(82) = 3.31$, $p < .01$) but not in the other's compliment condition ($\beta = -.10$, ns). However, the simple effect of condition was not quite significant for LSEs ($\beta = .23$, ns), and HSEs reported that the compliment-giver was more sincere when it was their own partner than when it was a fictional character ($\beta = .38$, $t(82) = 2.57$, $p < .05$).

There were only main effects on the remaining compliment questions. Considering how meaningful the compliment would be, and how likely the partner would be to make a similar compliment again in the future, there were main effects of SE ($\beta = .37$, $t(82) = 3.58$, $p < .01$ and $\beta = .28$, $t(82) = 2.63$, $p = .01$, respectively). HSEs judged the compliment as more meaningful and more likely to recur than did LSEs, regardless of whether it applied to themselves or to a fictional other. Participants in the other's compliment condition ($PV = 4.97$) thought the compliment was more significant to the relationship than did participants in the own compliment condition ($PV = 4.35$; $\beta = -.22$, $t(82) = -2.05$, $p < .05$), and this effect was not moderated by SE.

Coding. Regression analyses showed that gender influenced both acceptance ($\beta = -.30$, $t(78) = -3.04$, $p < .01$) and rejection ($\beta = .32$, $t(78) = 3.57$, $p < .01$) of the compliments such that women were more accepting and less rejecting than were men. Self-esteem also influenced acceptance ($\beta = .41$, $t(78) = 3.94$, $p < .01$) and rejection ($\beta = -.51$, $t(78) = -5.20$, $p < .01$) such that HSEs were more accepting and less rejecting of the compliments than were LSEs. There was also a gender x SE interaction on compliment rejection ($\beta = -.31$, $t(78) = -3.23$, $p < .01$). LSE men's reactions to the compliment ($PV = 3.08$) were more rejecting than those of HSE men ($PV = 1.32$; $\beta = -.79$, $t(82) = -5.19$, $p < .01$) and LSE women ($PV = 1.57$; $\beta = .60$, $t(82) = 5.17$, $p < .01$). HSE women scored the lowest in compliment rejection ($PV = 1.15$). The

simple effect of SE was not significant among women ($\beta = -.19$, *ns*). There was no main effect or any

interaction involving condition.

Table 1. *Predicted values for own and other's compliment conditions at low and high SE: Study 1*

| Dependent Variable | Low SE | | | | High SE | | | |
| | Own Compliment | | Other's Compliment | | Own Compliment | | Other's Compliment | |
	M	F	M	F	M	F	M	F
Positive Feelings	4.65$_a$	5.69$_a$	5.79$_b$	5.50$_a$	6.47$_{bc}$	6.43$_b$	6.25$_c$	6.42$_b$
Breadth of Praise	4.78$_a$		5.54$_b$		5.94$_b$		5.78$_b$	
Deservingness	4.80$_a$		6.04$_b$		6.18$_b$		6.06$_b$	
Sincerity of Partner	5.46$_a$		6.00$_a$		6.66$_b$		5.76$_a$	

Note. Simple effects test were conducted comparing differences between conditions at LSE, differences between conditions at HSE, and LSEs to HSEs within each condition, for each dependent variable. For the positive feelings variable, these analyses were separated by gender. In each row, predicted scores for the cells that were compared that do not share any subscripts differ at $p < .05$. Low and high SE were calculated at + or − 1 SD.
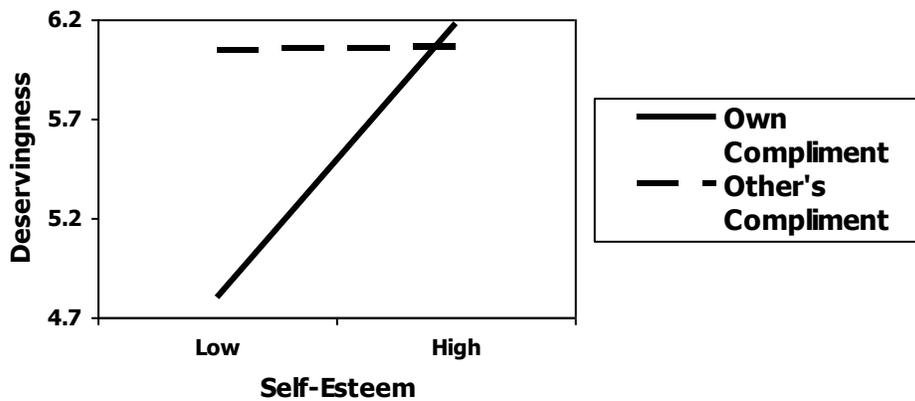
Figure 1. Compliment deservingness as a function of condition and SE (+ or − 1SD): Study 1

Discussion

Taken together, the findings of Study 1 support my hypothesis that LSEs are more negative about

and dismissing of a hypothetical compliment than are HSEs when the compliment refers to themselves,

and less so when it refers to another person. On some items, however, there were only main effects of

self-esteem showing LSEs were more negative than HSEs in both conditions. One way to distinguish

these different sets of results is by whether the rating was made about the compliment itself, or about the implications of the compliment for the self. When asked about the implications of the compliment (how much the receiver deserved the compliment, how much it said about their value vs. their behaviour), the results conform to my hypothesis. When asked about the compliment specifically, (how meaningful it was, how likely it was to recur), LSEs were generally more negative than HSEs, regardless of to whom the compliment was directed. In their open-ended responses to the question of how the receiver would feel about the compliment, LSEs (especially men) wrote more rejecting and less accepting statements than did HSEs, again regardless of whether it was them or a fictional other who was the receiver.

Thus, to some extent LSEs do have a general negative bias about compliments, but the tendency to downplay what a simple compliment implies about the value or worth of the receiver is a self-specific phenomenon. I take this as evidence that LSEs tend to dismiss compliments from their partners out of a self-protective motivation. That is, they are reluctant to get their hopes up about being genuinely valued and admired so that if evidence to the contrary emerged the ensuing rejection would not hurt quite so much. Additionally, they would not risk disappointing their partner if they kept their partners' expectations low.

An alternative possibility for these results is that LSEs do not see themselves as intelligent as HSEs see themselves, so they had trouble accepting this particular compliment. I think this is a plausible but unlikely explanation because LSEs rate themselves as equal in intelligence to HSEs (Anthony, Holmes, & Wood, 2007) and expect to receive similar test marks as HSEs (Logel, et al., 2008). As well, SE does not reliably predict increases in school performance (Baumeister et al., 2003).

LSE men were particularly inclined to write a rejecting response to the compliment, and felt most negatively about the compliment when it referred to themselves (and less so when it referred to a fictional other). Women offer more compliments than do men, especially when addressing other women (Johnson & Roen, 1992). LSE men may perhaps be the least frequent givers and receivers of compliments, and thus the most uncomfortable and unenthusiastic about them. However, the lack of gender effects in the next four studies cautions me against interpreting these findings any further.

Study 2: Developing the Abstract Reframing Intervention

In the next four studies, participants recalled a compliment that they had received from their romantic partner.[2] The advantage of using hypothetical compliments was control over the nature and positivity of the personal quality being complimented. However, I thought that shifting from hypothetical to actually received compliments would allow LSEs to benefit more fully from compliment reframing. The particular quality used in a hypothetical compliment scenario may or may not be one that participants feel confident about possessing, view as important to their self-concept, or believe that their partner has noticed. If given the opportunity to choose a compliment they had actually received, participants would most likely focus on a quality that they thought was true of themselves, important, and noticeable to others. It would be easier to convince participants that a compliment on this kind of quality was a meaningful expression of positive regard.

I believed that LSEs would normally view compliments as relatively concrete, isolated, past events, and not make meaningful generalizations from them about how much they are valued. In the critical condition in each study, I induced participants to describe the compliment in an abstract fashion: They explained why their partner admired them, what the compliment meant to them, and what significance it had for their relationship. Two weeks later participants completed a follow-up questionnaire to determine whether any increases in perceptions of relationship quality would endure for the abstract condition when the compliment was not salient.

I expected the abstract reframing intervention to induce LSEs to form a more global interpretation of the compliment without engaging self-evaluation concerns, the problem that has apparently caused past efforts to increase security to be unsuccessful (Wood et al., 2006). The particular aspects of this approach that allow it to "go under the radar" in terms of activating such general concerns will be discussed in detail in the discussion. The novel aspect of this approach is that it helps LSEs to help themselves. They

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[2] Pilot testing showed that recalling a compliment was no more difficult for LSEs than for HSEs.

may be empowered by learning how to meaningfully reframe their partners' affirmations in a manner that permits them to assuage their doubts about their partners' love for them.

Method

Participants and Procedure

One hundred twenty-three introductory psychology students in romantic relationships participated in a two-part study of "Relationship Perceptions" in exchange for course credit. Four participants were excluded for not fully completing the materials. The remaining sample consisted of 19 men and 100 women. Mean age was 19 years and mean relationship length was 17 months. The majority of participants (100) indicated that they were in an "exclusive dating" relationship. Six individuals reported their relationship status as "casual dating," 8 were "living together," 4 were "engaged," and 1 was "married."

The entire study was completed online. In Part 1, participants recalled a past compliment from their romantic partner, and were randomly assigned to describe it in one of three different ways (detailed below). Participants then answered several questions about the compliment, completed a measure of state self-esteem, and answered several questions about their relationship in general. Participants in the control condition reported their relationship ratings prior to the compliment questionnaire to establish baseline measures of relationship quality. The remaining participants (abstract and concrete conditions) made their relationship ratings after the compliment manipulation and questions.

All participants were sent the link to the Part 2 questionnaire approximately two weeks after they completed Part 1. The cue words they wrote to identify the compliment prior to the manipulation instructions in Part 1 were attached to their participant ID number and thus automatically inserted into their questionnaire when they logged on to Part 2. However, participants reported their thoughts and feelings about their relationship prior to being reminded of the compliment they wrote about in Part 1.

One hundred fifteen participants completed Part 2. Six were excluded from Part 2 analyses because they had broken up with their partner since completing Part 1. Thus, the Part 2 sample included 109 participants (15 men and 94 women), or 92% of the original sample. The two samples did not differ in self-esteem. The Part 2 sample scored higher in compliment positivity, felt security, and relationship

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valuing in Part 1. However, these differences are completely accounted for by the participants who broke up with their partners since Part 1; they do not hold for participants who simply chose not to complete Part 2.

Part 1Materials

   Trait self-esteem. Self-esteem was measured by the Rosenberg (1965) Self-Esteem scale ($\alpha = .92$) as in Study 1.

   Compliment manipulation. All participants received the following instructions: "Think of a time when your partner told you how much he/she liked something about you. For example, a personal quality or ability you have that he/she thinks very highly of, or something you did that really impressed him/her." They were asked to write down a few cue words that would identify that memory to them, note how long ago it occurred, then go to the next page to describe the compliment more fully.

   In the concrete ($N = 35$) condition, participants were asked to: "Describe exactly what your partner said to you. Include any details you can recall about where you two were at the time, what you were doing, what you were both wearing, etc." In the abstract condition ($N = 35$), participants were asked to: "Explain why your partner admired you. Describe what it meant to you and its significance for your relationship." I portrayed the partners' positive behaviour in terms of "said" (in the concrete condition) vs. "admired" (in the abstract condition) based on Semin and Fiedler's (1988) linguistic category model (see also Semin & DePoot, 1997). In contrast to an action verb like "said," a state verb like "admired" implies that the behaviour has lasted for a longer period and is more likely to recur in the future. I hoped that the use of a state verb would lead LSEs to perceive the compliments to be more broad and global in their implications about their value to their partners. The control condition ($N = 49$) was simply instructed to "Describe the event in the space below."

   Compliment questions. Participants responded to four items about how positively the compliment made them feel (happy, secure, valuable, and accepted) on scales ranging from 1 (*not at all*) to 7 (e*xtremely*). Two items assessed how abstractly they perceived the compliment ("How meaningful was this event to you?" "How significant was this event to your relationship?") on the same 7-point scales.

Two items asked about participants' attributions for the compliment, i.e., how deserving of it they felt (1 = *my partner just wanted to be nice to me* to 7 = *I was truly deserving*) and how sincere they thought their partner was (1 = *not at all* to 7 = *extremely*). Another two items assessed the frequency with which participants believed they received compliments ("How often does your partner say things like this?" 1 = *never* to 7 = *very often*), and expected to receive compliments ("How likely is it that your partner would say something like this again in the future?" 1 = *extremely unlikely* to 7 = *extremely likely*). Cronbach's α for these four indices of compliment positivity were as follows: .92 for positive feelings, .64 for abstraction, .57 for attributions, and .75 for frequency.

Memory accessibility. This three-item scale (α = .85) asked participants to rate how easily and quickly the compliment they wrote about came to mind when they were first asked to think of a specific example of a compliment (1 = *not at all* to 7 = *extremely*), and how detailed was their memory for it (1 = *very vague* to 7 = *very detailed)*.

State self-esteem. Participants indicated how they felt about themselves "right now, at this moment" on 10 7-point, bipolar adjective scales (e.g., "accepted-rejected," "unimportant-important"). Items were reverse-scored where appropriate and averaged to created a measure of state self-esteem, α = .93 (adapted from McFarland & Ross, 1982). State self-esteem captures temporary fluctuations in self-evaluations caused by receipt of positive or negative information about the self, whereas trait self-esteem, as measured by the Rosenberg Self-Esteem scale in this study, captures average or typical self-evaluations across time (Heatherton & Polivy, 1991).

Relationship quality. Participants were instructed to consider "how you feel about your relationship right now." They responded to 19 statements on a scale of 1 (*not at all true*) to 7 (*completely true*), several of which were adapted from Murray et al. (2000, 2002). Responses to 12 statements were averaged to create a measure of felt security, α = .89 (e.g., "I am confident that my partner will always want to look beyond my faults and see the best in me," "Though times may change and the future is uncertain, I know my partner will always be ready and willing to offer me strength and support").

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Responses to four statements were averaged to create a measure of participants' satisfaction with the relationship, $\alpha = .89$ (e.g., "I am extremely happy with my current romantic relationship," "I have a very strong relationship with my partner"). Responses to three statements tapping commitment to the relationship were also averaged, $\alpha = .86$ (e.g., "I am very committed to my relationship," "I see my relationship as a burden" (reverse-scored)). Finally, participants indicated how confident they were that they would still be in a romantic relationship with their current partner at each of five specified time periods (6 months, 1 year, 2 years, 5 years, a lifetime) (adapted from MacDonald and Ross, 1999). They rated each item on a scale from 1 (*extremely uncertain*) to 7 (*extremely certain*). The α for this five-item future optimism scale was .94.

Part 2 Materials

All participants, regardless of the condition they had been assigned to in Part 1, received the same instructions and questions in Part 2. They responded to questions about their relationship in general before being reminded of the compliment to determine whether the intervention in Part 1 might cause lasting changes in their perceptions of relationship quality.

Frequency of positive partner behaviour. Participants were instructed to "think about what has happened in your relationship in the last 2 weeks (since you completed the first part of this study)." Using a 5-point scale (1 = *not at all* to 5 = *many times*), they rated the frequency of four positive partner behaviours (e.g., "told you how much he/she cares about you," "supported or encouraged you") and four negative behaviours (e.g., "criticized you," "acted inconsiderately towards you"). The negative items were reverse scored and averaged with the positive items to form a measure of positive partner behaviour, $\alpha = .81$.

Relationship quality. Part 2 included seven of the felt security statements from Part 1 ($\alpha = .89$), and two each from the commitment and satisfaction scales ($\alpha = .75$ and $\alpha = .93$, respectively).

Compliment questions. After being reminded of the compliment using their cue words and briefly describing the compliment as they now recalled it, participants rated several items according to how they

now felt about the compliment. I used the same four-item positive feelings index as in Part 1, $\alpha = .87$. The abstraction index included the meaning and significance items from Part 1 and one additional item: "How broad was your partner's praise for you?" This was rated on a scale ranging from 1 (*about my behaviour only*) to 7 (*about me as a person*). The α for this abstraction scale was .72.

Part 1 Coding

The Linguistic Inquiry and Word Count (LIWC) program (Pennebaker, Francis, & Booth, 2001) was used to assess the extent to which participants' Part 1 descriptions of their partners' compliments included past and present tense verbs. The LIWC is a computerized text analysis program that yields percentages of total words falling under a particular category. I was especially interested in whether participants in the abstract condition would use more present tense and fewer past tense verbs than participants in the other two conditions. This difference in verb usage would suggest that they regarded the compliment as an indication of their partner's continuing view of them, as opposed to an isolated remark in the past. I recalculated the values yielded by the program to reflect percentage of total verbs, rather than total words, which were past or present tense.

<div align="center">

Results

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Part 1

I created two composite variables to simplify reporting of the numerous dependent variables. Preliminary analyses showed similar patterns of effects on each subscale described under compliment questions and under relationship quality. An overall "compliment positivity" composite ($\alpha = .84$) was created by averaging standardized scores for each of the four indices of compliment questions (positive feelings, abstraction, attributions, and frequency). A "relationship valuing" composite ($\alpha = .93$) was created by averaging the standardized scores for commitment, satisfaction, and future optimism. I kept the felt security index of relationship quality separate because it is a theoretically distinct construct (Murray et al., 2006). I expected that feeling more positively about the compliment would lead to increased felt security, which would then increase relationship valuing for LSEs.

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As in Study 1, all dependent variables were regressed on effect-coded condition (abstract, concrete, or control), SE, and the condition x SE interaction. There were no significant main effects of gender and no significant interactions between condition and gender on any of the dependent variables in any of the next four studies. Thus, gender will not be discussed further. Temporal distance of the compliment ($M = 3.3$ months) was included as a covariate. I hypothesized that LSEs would be more negative than HSEs on all dependent variables in both the control and concrete conditions, but not in the abstract condition. Furthermore, I expected that LSEs in the abstract condition would be significantly more positive than LSEs in either the control condition or the concrete condition. Unless indicated, there were no differences between conditions among HSEs on any of the dependent variables examined in this study.

The predicted values for the various analyses are reported in Table 2. A graph is presented (Figure 2) only for felt security, which I believe to be the most important finding in this study. However, the pattern of means in Figure 2 is very similar to the pattern of means for the other dependent variables and thus may be viewed as a prototypical finding to aid in understanding the information in Table 2.

Compliment positivity. A significant main effect of condition ($\beta = .31$, $t(112) = 3.04$, $p < .01$) was qualified by a condition x SE interaction ($\beta = -.32$, $t(112) = -3.22$, $p < .01$) on compliment positivity. In the control condition, when given no specific instructions about how to think about and describe the compliment, LSEs reported feeling significantly worse about the compliment than did HSEs ($\beta = .50$, $t(112) = 3.60$, $p < .01$). Importantly, however, LSEs in the abstract condition were significantly more positive about the compliment than were LSEs in the control ($\beta = .64$, $t(112) = 4.82$, $p < .01$) and concrete conditions ($\beta = .41$, $t(112) = 2.84$, $p < .01$), which did not differ from each other. In the abstract condition, LSEs viewed the compliments as positively as did HSEs ($\beta = -.25$, *ns*). Thus, consistent with my hypothesis, LSEs were typically less enthusiastic than HSEs about their partners' compliments, but they viewed the compliments as positively as HSEs did after describing the compliments' abstract meaning and significance.

Memory accessibility. A marginal main effect of SE ($\beta = .17$ $t(112) = 1.91$, $p < .06$) was qualified by a significant condition x SE interaction ($\beta = -.27$, $t(112) = -2.65$, $p < .01$) on memory accessibility. LSEs reported lower accessibility than did HSEs in both the control ($\beta = .32$, $t(112) = 2.22$, $p < .05$) and concrete conditions ($\beta = .35$, $t(112) = 2.22$, $p < .05$). LSEs reported higher accessibility in the abstract condition than in the control ($\beta = .45$, $t(112) = 3.26$, $p < .01$) and concrete conditions ($\beta = .28$, $t(112) = 1.91$, $p < .06$). In the abstract condition, LSEs did not differ from HSEs in reported ease of retrieving the memory ($\beta = -.17$, *ns*). Note that all participants were asked to recall a specific compliment from their partner <u>prior</u> to the manipulation. LSEs tended to report greater difficulty recalling a compliment than did HSEs unless they had subsequently been instructed to describe the meaning and significance of the compliment.

State self-esteem. A significant main effect relation between trait SE and state SE ($\beta = .62$, $t(112) = 8.70$, $p < .01$) was qualified by a marginally significant condition x SE interaction ($\beta = -.16$, $t(112) = -1.89$, $p = .06$). Not surprisingly, LSEs reported lower state self-esteem than did HSEs in all conditions ($\beta = .75$, $t(112) = 6.33$, $p < .01$ in control condition; $\beta = .69$, $t(112) = 5.43$, $p < .01$ in concrete condition; $\beta = .43$, $t(112) = 3.39$, $p < .01$ in abstract condition). Most pertinent to my hypothesis, however, LSEs reported significantly higher state self-esteem in the abstract condition than in the control condition ($\beta = .28$, $t(112) = 2.51$, $p < .05$). The mean state SE in the concrete condition was intermediate to, and not significantly different from, the other two conditions (ps $> .20$, *ns*). Thus, thinking about a specific compliment from their partner in an abstract manner did have implications for how valuable LSEs felt more generally.

Felt security. In addition to making them feel better about the compliment and about themselves, would reframing compliments abstractly make LSEs feel more secure in their relationships? Indeed, main effects of condition ($\beta = .27$, $t(112) = 2.65$, $p < .01$ and $\beta = -.23$, $t(112) = -2.24$, $p < .05$), and SE ($\beta = .27$, $t(112) = 3.17$, $p < .01$), were qualified by a condition x SE interaction ($\beta = -.34$, $t(112) = -3.48$, $p < .01$) on felt security (Figure 2). LSEs reported feeling less secure about their relationship than did HSEs in

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both the control ($\beta = .48$, $t(112) = 3.48$, $p < .01$) and concrete conditions ($\beta = .47$, $t(112) = 3.14$, $p < .01$).

In the abstract condition, however, they reported feeling just as secure as did HSEs ($\beta = -.15$, ns), and

more secure than LSEs in either of the other two conditions ($\beta = .46$, $t(112) = 3.52$, $p < .01$ for control

comparison; $\beta = .56$, $t(112) = 3.87$, $p < .01$ for concrete comparison). Recall that participants in the

control condition completed the relationship ratings prior to describing a compliment. So, these results

demonstrate that for LSEs, simply thinking about positive feedback from their romantic partner (in a

concrete way) is not sufficient to raise their felt security from baseline. They need to be encouraged to

think of the feedback in a more abstract, meaningful way to benefit from recalling the compliment.

Relationship valuing. Feeling insecure in their romantic relationship typically leads LSEs to

devalue the relationship (Murray et al., 2000). After boosting their felt security, then, would there be a

corresponding increase in how positively they perceived their relationship? As with felt security, on the

relationship valuing composite there was a main effect of condition ($\beta = .30$, $t(112) = 2.73$, $p < .01$),

which was qualified by a condition x SE interaction ($\beta = -.25$, $t(112) = -2.39$, $p < .05$). LSEs valued their

relationships more in the abstract condition than in the control ($\beta = .40$, $t(112) = 2.87$, $p < .01$) and

concrete conditions ($\beta = .51$, $t(112) = 3.31$, $p < .01$). No other simple effects reached significance.

Thinking about a partner's compliment abstractly led LSEs to not only feel more secure, but also to value

the relationship more highly.

Mediation. I conducted three mediational analyses pertinent to my theoretical model to

investigate how the condition x SE interaction affected the dependent variables (following Sobel, 1982).

Consistent with expectations, I found that the interaction effect: a) on state self-esteem was mediated by

compliment positivity ($z = -2.58$, $p < .01$); b) on felt security was also mediated by compliment positivity

($z = -2.95$, $p < .01$); and c) on relationship valuing was mediated by felt security ($z = -3.29$, $p < .01$).

Baron and Kenny's (1986) four requirements for mediation were also met for each mediation analysis

reported in this dissertation: There was a significant relationship between the independent variable (the

condition x SE interaction term) and the dependent variable, between the interaction term and the

mediator, and between the mediator and the dependent variable (controlling for the interaction term). The effect of the interaction term on the dependent variable dropped to nonsignificance when the mediator was included in the model.

These analyses suggest that for LSEs, describing positive feedback from their romantic partner in an abstract manner led them to perceive the feedback more positively, which raised their state self-esteem and made them feel more secure in the relationship. This increased sense of security, in turn, allowed them to be more generous in their conclusions about their relationship and evaluate it more positively.

Verb tense. Do LSEs spontaneously describe past compliments from their romantic partners as "more past" – that is, do they use more past tense and fewer present tense verbs than HSEs? Analyses revealed main effects of condition on both past tense ($\beta = -.27$, $t(111) = -2.55$, $p < .05$) and present tense verbs ($\beta = .27$, $t(111) = 2.46$, $p < .05$), which were qualified by condition x SE interactions ($\beta = .31$, $t(111) = 3.05$, $p < .01$ and $\beta = -.28$, $t(111) = -2.65$, $p < .01$, respectively). When LSEs were given no specific instructions on how to describe a compliment from their romantic partner (control condition), they used marginally more past tense verbs than did HSEs ($\beta = -.28$, $t(111) = -1.90$, $p = .06$). They also tended to use fewer present tense verbs, though not significantly so ($p = .18$). LSEs used significantly fewer past tense verbs and more present tense verbs in the abstract condition than in the control condition ($\beta = -.50$, $t(111) = -3.59$, $p < .01$ for past; $\beta = .46$, $t(111) = 3.22$, $p < .01$ for present) or the concrete condition ($\beta = -.48$, $t(111) = -3.15$, $p < .01$ for past; $\beta = .45$, $t(111) = 2.94$, $p < .01$ for present). In fact, even compared to HSEs in the abstract condition, LSEs used fewer past tense verbs ($\beta = .39$, $t(111) = 2.54$, $p < .05$) and more present tense verbs ($\beta = -.37$, $t(111) = -2.34$, $p < .05$). Thus, with no specific instructions for describing positive feedback from their partners, LSEs tended to describe the feedback as being more in the past than did HSEs. The compliments LSEs nominated were not actually any farther in the past, however – the correlation between SE and temporal distance of the compliment was -.01. When instructed to describe the more abstract meaning and significance of the compliments, LSEs situated them more in the present – more so even than HSEs.

Part 2

The Part 2 sample included 33 participants from the abstract condition, 32 from the concrete condition, and 44 from the control condition. As in Part 1, I created composite measures for compliment positivity (positive feelings and abstraction; $\alpha = .87$) and relationship valuing (satisfaction and commitment; $\alpha = .92$). Both the temporal distance of the compliment and days between Part 1 and Part 2 ($M = 16.4$ days) were controlled for in the regression analyses.

Felt security. By placing the general relationship questions at the beginning of the Part 2 questionnaire, I tested whether the increase in felt security for LSEs in the abstract condition would persist over time when the specific compliment that caused the increase was not salient. Indeed, the pattern of results was identical to that for felt security in Part 1. There were main effects of condition ($\beta = .30$, $t(101) = 2.87$, $p < .01$ and $\beta = -.23$, $t(101) = -2.21$, $p < .05$) and SE ($\beta = .41$, $t(101) = 4.73$, $p < .01$), which were qualified by a condition x SE interaction ($\beta = -.30$, $t(101) = -2.98$, $p < .01$). LSEs who had been in the abstract condition in Part 1 were still feeling as secure as were HSEs ($\beta = .05$, *ns*), and more secure than LSEs who had been in the control ($\beta = .41$, $t(101) = 3.11$, $p < .01$) and concrete conditions ($\beta = .56$, $t(101) = 3.82$, $p < .01$). The simple effect of SE was significant in both of these conditions ($\beta = .52$, $t(101) = 3.70$, $p < .01$ and $\beta = .65$, $t(101) = 4.15$, $p < .01$, respectively).

Relationship valuing. There were no significant effects on the relationship valuing composite in Part 2.

Frequency of positive partner behaviour. If LSEs came away from the first part of this study feeling more highly valued by their romantic partners, would they then allow themselves to be more attentive to other positive behaviours, and less attentive to negative behaviours from their partners? Findings on the measure of perceived frequency of positive partner behaviour support this supposition. There were main effects of condition ($\beta = .25$, $t(101) = 2.23$, $p < .05$) and SE ($\beta = .29$, $t(101) = 3.19$, $p < .01$), qualified by a condition x SE interaction, ($\beta = -.26$, $t(101) = -2.46$, $p < .05$). LSEs reported lower frequencies of positive behaviour from their partners than did HSEs when they had been in either the

control condition ($\beta = .36$, $t(101) = 2.42$, $p < .05$) or the concrete condition ($\beta = .53$, $t(101) = 3.21$, $p < .01$) in Part 1. LSEs reported just as high frequencies of positive partner behaviour as did HSEs when they had been in the abstract condition ($\beta = -.02$, *ns*), and significantly higher frequencies than LSEs who had been in either of the other two conditions ($\beta = .38$, $t(101) = 2.65$, $p < .01$ for control condition; $\beta = .46$, $t(101) = 2.91$, $p < .01$ for concrete condition).

Compliment positivity. There was only a main effect of condition on the compliment positivity composite in Part 2 ($\beta = .38$, $t(98) = 3.31$, $p < .01$). Participants who had described a compliment abstractly in Part 1 continued to report feeling more positively about it ($M = .36$) than those who had described it concretely ($M = -.14$; $\beta = .29$, $t(101) = 2.61$, $p = .01$), or those who were in the control condition ($M = -.18$; $\beta = .32$, $t(101) = 3.12$, $p < .01$).

Mediation. The condition x SE interaction on positive partner behaviour was mediated by felt security ($z = -2.82$, $p < .01$). For LSEs, then, the increase in felt security derived from describing compliments abstractly led them to recall greater frequency of other types of positive behaviours (and lower frequency of negative behaviours) in the 2-3 weeks since that abstract description. The analyses suggested that feeling more secure about their partners' regard for them made LSEs were more willing to generalize signs of acceptance and minimize signs of rejection.

Coding. There were no significant effects on the use of present and past tense verbs. Having participants answer a number of questions about their relationship prior to being reminded of the compliment may have eliminated any further effects of the manipulation.

Table 2
Predicted values for control, concrete, and abstract conditions at low and high SE: Study 2

Dependent Variable	Low SE			High SE		
	Control	Concrete	Abstract	Control	Concrete	Abstract
Part 1						
Compliment Positivity	$-.47_a$	$-.12_a$	$.49_b$	$.23_b$	$.08_{ab}$	$.15_b$
Memory Accessibility	4.78_a	5.25_a	6.08_b	5.64_b	6.15_b	5.64_b
State Self-Esteem	4.54_a	4.84_{ab}	5.20_b	6.14_c	6.30_c	6.10_c
Felt Security	5.24_a	5.04_a	6.23_b	6.18_b	5.94_b	5.93_b
Relationship Valuing	$-.24_a$	$-.43_a$	$.53_b$	$.10_a$	$.03_a$	$.13_{ab}$
Abstraction (coded)	1.86_{ac}	1.49_a	3.49_b	2.28_c	1.59_a	2.55_c
Past Tense	67.27_a	65.66_a	37.44_b	51.87_a	61.40_a	58.90_a
Present Tense	32.11_a	32.49_a	58.12_b	42.83_a	36.35_a	38.94_a
Part 2						
Frequency of positive partner behaviour	3.79_a	3.66_a	4.32_b	4.25_b	4.36_b	4.28_b
Felt Security	5.49_a	5.16_a	6.34_b	6.49_b	6.42_b	6.46_b

Note. Simple effects test were conducted comparing differences between conditions at LSE, differences between conditions at HSE, and LSEs to HSEs within each condition, for each dependent variable. In each row, predicted scores for the cells that were compared that do not share subscripts differ at $p < = .05$. Low and high SE were calculated at $+$ or -1 SD.
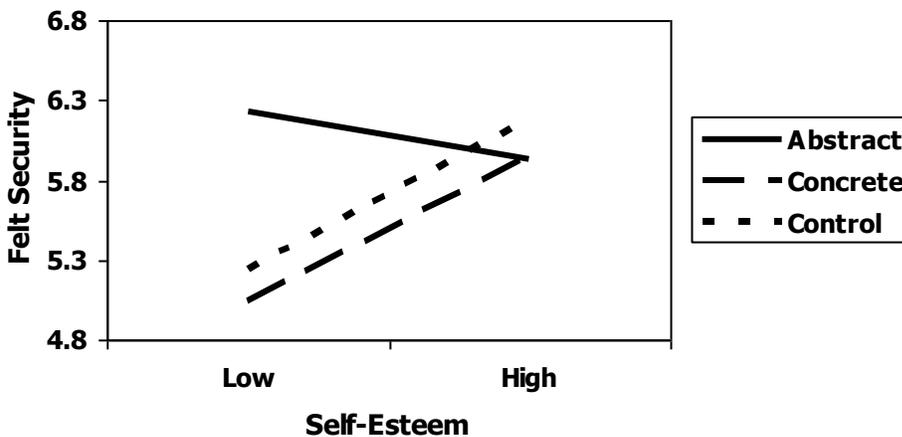

Figure 2. Felt security as a function of condition and SE ($+$ or $-$ 1SD): Study 2

Discussion

In Part 1, LSEs were typically less enthusiastic about compliments from their romantic partners, reported more difficulty in remembering the compliments, and described them using more past tense verbs than did HSEs. When given instructions to describe the concrete details of the compliment, LSEs did not budge from their typical stance. When instructed to describe the feedback more abstractly, in terms of its meaning and significance, LSEs reported increased positive feelings, greater ease in recalling the feedback, and used present tense more often. In the abstract condition, LSEs did not differ significantly from the usually more buoyant HSEs on these measures.

Importantly, remembering one specific compliment more abstractly had far-reaching consequences for LSEs. It increased their state self-esteem and sense of relationship security, which encouraged them to offer more positive evaluations of their relationship in general. Impressively, some of these changes persisted over two weeks. LSEs who described a compliment abstractly in Part 1 continued to report increased felt security relative to other LSEs in Part 2. They also recalled more frequent positive and less frequent negative behaviours from their romantic partners during the intervening time period. The short and simple abstraction exercise appeared to make LSEs feel significantly better about their relationships two weeks later. Being instructed to write about the event in a particular way either altered how participants represented it in memory or reconstructed it at the time of recall (McGregor & Holmes, 1999; Pennebaker & Francis, 1996).

A remaining question to be addressed by future research is why LSEs reported more positive partner behaviour since the first session of the study. I suggest three plausible explanations: LSEs construed their partners' behaviour more positively only when they were asked to look back on it during the second session; they perceived more positive behaviour throughout the two weeks; or they in fact elicited more positive behaviour from their partner during that time period. If they finished the first session of the study feeling happier about their relationship, they may have gone on to behave in warmer, kinder ways toward their partner, who in turn may have treated them better. I return to this issue in Study 4 by including partner reports at Time 2.

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Study 3: Determining the Subtleties of the Abstract Reframing Intervention

Given how difficult it has been for past researchers to make LSEs feel more optimistic about anything, why was my abstraction reframing intervention effective? I propose that its subtlety is key. I think that the intervention worked because it managed to assumptively imply that the compliment must have been meaningful and significant, which avoided activating LSEs' doubts about their value to their partners. If LSEs had been explicitly provided with an opportunity to question the broader meaning and significance of the feedback, their self-evaluative worries would likely have undermined their enjoyment of the compliment. I tested this idea in Study 3. My hypothesis was that LSEs would feel more positively about a compliment from their partner, about themselves, and about their relationship when they were instructed to describe the compliment abstractly, but not when they were instructed to reflect on the question of whether the compliment should be considered abstract. Further, I expected the LSEs would rate their partners' positive feedback and the relationship in general more negatively than would HSEs in the control and question conditions, but they would be just as positive as HSEs in the abstract condition. In accordance with the research reviewed in this paper and my previous findings, I did not expect HSEs' ratings to differ between conditions.

Method

Participants and Procedure

Ninety-one undergraduate students in romantic relationships participated in a two-part study of "Relationship Perceptions" in exchange for credit for their introductory psychology course. One participant was excluded for not completing the materials. The remaining sample of 90 consisted of 39 men and 51 women. Mean age was 20 years and mean relationship length was 21 months. The majority of participants (71) indicated that they were in an "exclusive dating" relationship. Seven individuals reported their relationship status as "casual dating," 6 were "living together," 2 were "engaged," and 4 were "married."

Eighty-five participants completed Part 2, two weeks after Part 1. Two participants were excluded from Part 2 analyses, one for failing to complete the materials properly, and one for having broken up

with her partner since completing Part 1. Thus, the Part 2 sample included 83 participants (35 men and 48 women), or 92% of the original sample. The two samples did not differ on self-esteem or on any of the dependent variables. The study was conducted online and the procedure and dependent measures were identical to Study 2.

Materials

All materials for Parts 1 and 2 were identical to Study 2, with two exceptions. Memory accessibility was not assessed in this study, and the concrete condition was replaced with a question condition.

Compliment manipulation. As in Study 2, all participants were first instructed to think of a time when their partner told them something they liked about them. They were then randomly assigned to one of three conditions. The control condition ($N = 29$) and the abstract condition ($N = 27$) were the same as Study 2. The question condition ($N = 34$) differed very subtly from the abstract condition. Whereas the abstract condition instructed participants to "Explain why your partner admired you. Describe what it meant to you and its significance for your relationship," the question condition instructed participants to "Explain whether you think what your partner said indicated that he/she admired you. Consider whether it was meaningful to you and significant for your relationship." Thus, the same terms were used (admired, meaningful, and significant) but they were posed as questions rather than implied as assumptions by the instructions.

Results

Part 1

As in Studies 1 and 2, all dependent variables were regressed on effect-coded condition (abstract, question, or control), SE, and the condition x SE interaction. Temporal distance of the compliment ($M = 4.7$ months) was included as a covariate. As with Study 2, there were no condition differences for HSEs unless indicated.

The predicted values for the various analyses are reported in Table 3. As in Study 2, only the graph for felt security is presented (Figure 3). The pattern of means in Figure 3 is so similar to the pattern

of means for the other dependent variables in this study that it may be viewed as a prototypical finding to aid in understanding the information in Table 3.

Compliment positivity. I expected to replicate the finding from Study 2 that LSEs would be more enthusiastic about past positive feedback from their partner when they were instructed to describe it in an abstract manner as compared to given no specific instructions. I did not expect the question condition – in which abstract meaning and significance were suggested but not assumed – to provide the same boost. A marginal main effect of SE ($\beta = .24$, $t(83) = 1.89$, $p < .07$) was qualified by a condition x SE interaction on the compliment positivity composite ($\beta = -.25$, $t(83) = -2.22$, $p < .05$). As expected, LSEs were less positive about the compliment than were HSEs in the question condition ($\beta = .38$, $t(83) = 2.63$, $p = .01$), and somewhat less in the control condition ($\beta = .48$, $t(83) = 1.58$, $p = .12$), but not in the abstract condition ($\beta = -.13$, *ns*). As well, LSEs tended to report more positive thoughts and feelings about the compliment in the abstract condition than in the control condition or the question condition, although the simple effects were not significant (ps > .17). Thus, asking LSEs to consider whether a compliment from their partner was meaningful and significant did not have the same benefit as instructing them to describe the meaning and significance.

State self-esteem. Consistent with Study 2, there were main effects of condition ($\beta = .23$, $t(83) = 2.06$, $p < .05$) and SE ($\beta = .51$, $t(83) = 4.51$, $p < .01$) that were qualified by a condition x SE interaction ($\beta = -.23$, $t(83) = -2.33$, $p < .05$) on state self-esteem. LSEs reported lower state self-esteem than did HSEs in the control condition ($\beta = .78$, $t(83) = 2.93$, $p < .01$) and the question condition ($\beta = .58$, $t(83) = 4.58$, $p < .01$), but not in the abstract condition ($\beta = .16$, *ns*). LSEs in the abstract condition reported higher state self-esteem than did LSEs in the control ($\beta = .46$, $t(83) = 2.24$, $p < .05$) and question conditions ($\beta = .40$, $t(83) = 3.02$, $p < .01$).

Felt security. As with Study 2, I expected that LSEs who were instructed to reframe their partners' compliments abstractly would be able to internalize this praise and feel more valued by their partner generally. I did not think that LSEs who were encouraged to consider whether their partner's

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praise might indicate that they admired them would experience a corresponding increase in felt security. A main effect of SE ($\beta = .26$, $t(83) = 2.04$, $p < .05$) was qualified by a condition x SE interaction ($\beta = .25$, $t(83) = 2.28$, $p < .05$) (Figure 3). LSEs in the abstract condition felt significantly more secure in their relationship than did LSEs in the control (who made their ratings prior to recalling a compliment) ($\beta = .49$, $t(83) = 2.11$, $p < .05$) and question conditions ($\beta = .33$, $t(83) = 2.18$, $p < .05$). In fact, LSEs felt just as secure as did HSEs in the abstract condition ($\beta = -.12$, ns). The simple effect of SE was significant in the question condition ($\beta = .46$, $t(83) = 3.27$, $p < .01$). So, LSEs who were instructed to describe their partners' compliments abstractly felt more secure about their partners' regard than they typically did (control condition), but LSEs who were asked to evaluate whether or not their partners' compliments had abstract meaning and significance did not experience a boost to felt security.

Relationship valuing. The condition x SE interaction on the composite measure of relationship valuing was significant ($\beta = -.21$, $t(83) = -1.96$, $p = .05$). LSEs in the abstract condition valued their relationship marginally more than did LSEs in the control ($\beta = .44$, $t(83) = 1.91$, $p < .06$) and question conditions ($\beta = .29$, $t(83) = 1.92$, $p < .06$). Unexpectedly, HSEs were significantly more positive about their relationship in the question condition than in the control condition ($\beta = .37$, $t(83) = 2.07$, $p < .05$). The simple effect of SE was significant only in the question condition ($\beta = .43$, $t(83) = 3.05$, $p < .01$).

Mediation. I conducted the same mediation analyses that I did for Study 2. For LSEs, describing positive feedback from their romantic partner in an abstract manner led them to perceive the feedback more positively, which raised their state self-esteem ($z = -2.11$, $p < .05$) and made them feel more secure in the relationship ($z = -2.15$, $p < .05$). This increased sense of security, in turn, allowed them to make more generous conclusions about the relationship by evaluating it more positively ($z = -2.25$, $p < .05$).

Verb tense. Unlike Study 2, there were only main effects of condition on verb tenses. The conditions differed in their proportion of both past tense verbs ($\beta = -.31$, $t(83) = -2.57$, $p < .05$) and present tense verbs ($\beta = .30$, $t(83) = 2.45$, $p < .05$). Specifically, participants in the control condition used more past tense verbs ($M = 62.1\%$) than did those in the abstract condition ($M = 44.1\%$; $\beta = .45$, $t(86) =$

3.74, $p < .01$) or the question condition ($M = 43.0\%$; $\beta = .36$, $t(86) = 3.28$, $p < .01$). As well, participants in the control condition used fewer present tense verbs ($M = 33.3\%$) than did those in the abstract ($M = 55.3\%$; $\beta = -.46$, $t(86) = -3.93$, $p < .01$) and question conditions ($M = 54.9\%$; $\beta = -.40$, $t(86) = -3.70$, $p < .01$). Although participants in the question condition generally reported fewer positive outcomes than did participants in the abstract condition, their narratives indicated that they were at least considering the compliments in present terms.

Part 2

The Part 2 sample included 26 participants from the abstract condition, 24 from the control condition, and 33 from the question condition. The time interval between Part 1 and 2 ranged from 12 to 24 days, with a mean of 15.9.

Felt security. A main effect of SE ($\beta = .34$, $t(75) = 2.35$, $p < .05$) and a condition x SE interaction ($\beta = -.32$, $t(75) = -2.72$, $p < .01$) yielded a similar pattern of results as in Part 1. LSEs who had been in the abstract condition in Part 1 continued to report greater felt security than did LSEs who had been in the control ($\beta = .56$, $t(75) = 2.07$, $p < .05$) and question conditions ($\beta = .29$, $t(75) = 1.94$, $p = .05$). In the abstract condition LSEs did not differ significantly from HSEs ($\beta = -.15$, *ns*). LSEs were marginally less secure than HSEs in the control condition ($\beta = .66$, $t(75) = 1.80$, $p < .08$) and significantly less in the question condition ($\beta = .51$, $t(75) = 3.58$, $p < .01$). Two weeks after writing about the abstract meaning and significance of a compliment from their romantic partner, LSEs continued to feel more positively regarded by their partner in general, as indexed by their felt security, than did LSEs who were instructed to question the meaning and significance of the compliment, or given no instructions about what to write.

Relationship valuing. The condition x SE interaction on relationship valuing was significant ($\beta = .27$, $t(75) = 2.01$, $p < .05$). Similar to the results for felt security, LSEs who had been in the abstract condition in Part 1 continued to value their relationship significantly more than LSEs who had been in the question condition ($\beta = .41$, $t(75) = 2.69$, $p < .01$). The simple effect of SE was significant only in the question condition ($\beta = .47$, $t(75) = 3.29$, $p < .01$).

Frequency of positive partner behaviour. The analysis of the eight-item measure, which included four positive items and four (reverse-scored) negative items, was not significant. Examining positive and negative items separately, however, I found a significant condition x SE interaction. Whereas in Study 2 the condition x SE interaction was significant on both the positive and negative items (making the entire eight-item measure significant), in Study 3 the interaction was significant only on the positive items (β = -.26, $t(75)$ = -2.11, $p < .05$). Unexpectedly, on this measure, LSEs who had been in the question condition were just as high as were LSEs who had been in the abstract condition, both of whom recalled a greater frequency of positive partners behaviours than did LSEs who had been in the control condition (β = .59, $t(75)$ = 2.06, $p < .05$ for abstract to control comparisons; β = .51, $t(75)$ = 1.76, $p < .09$ for question to control comparison). In addition to feeling more secure and positive about their relationships, LSEs who had been in the abstract condition also reported greater frequency of positive behaviours from their partners since completing Part 1 of the study than did LSEs who had been in the control condition.

Compliment positivity. In Study 2 there was a main effect of condition on the compliment positivity composite in Part 2, such that everyone who had been in the abstract condition reported more positive thoughts and feelings about the compliment than did participants who had been in the concrete or control conditions. In this study, no effects attained significance on this measure.

Mediation. I tested whether the condition x SE interaction effect on frequency of positive partner behaviour was mediated by felt security, as in Study 2. I also tested whether the interaction on relationship valuing (which was not found in Part 2 of Study 2) was mediated by felt security. The results indicate that LSEs' increase in felt security in the abstract condition led to an increase in perceived frequency of positive partner behaviours (z = -2.58, $p < .01$) as well as an increase in relationship valuing (z = -2.77, $p < .01$).

Coding. There were no significant effects on verb tenses for the Part 2 narratives.

Table 3
Predicted values for control, question, and abstract conditions at low and high SE: Study 3

Dependent Variable	Low SE			High SE		
	Control	Question	Abstract	Control	Question	Abstract
Part 1						
Compliment Positivity	$-.62_a$	$-.24_a$	$.34_a$	$-.02_{ab}$	$.56_b$	$-.12_{ab}$
State Self-Esteem	5.05_a	5.16_a	5.87_b	6.31_b	6.10_b	6.13_b
Felt Security	4.96_a	5.33_a	6.03_b	5.82_{ab}	6.25_b	5.81_{ab}
Relationship Valuing	$-.51_a$	$-.20_a$	$.34_a$	$-.11_a$	$.54_b$	$.06_{ab}$
Part 2						
Felt Security	5.06_a	5.64_a	6.26_b	6.36_{ab}	6.64_b	5.98_b
Relationship Valuing	$-.31_{ab}$	$-.40_a$	$.43_b$	$-.07_b$	$.48_b$	$.05_b$
Frequency of positive partner behaviour (positive only)	3.14_a	4.01_b	4.21_b	4.10_{ab}	4.37_{ab}	3.87_{ab}

Note. Simple effects test were conducted comparing differences between conditions at LSE, differences between conditions at HSE, and LSEs to HSEs within each condition, for each dependent variable. In each row, predicted scores for the cells that were compared that do not share subscripts differ at $p < = .05$. Low and high SE were calculated at + or − 1 SD.

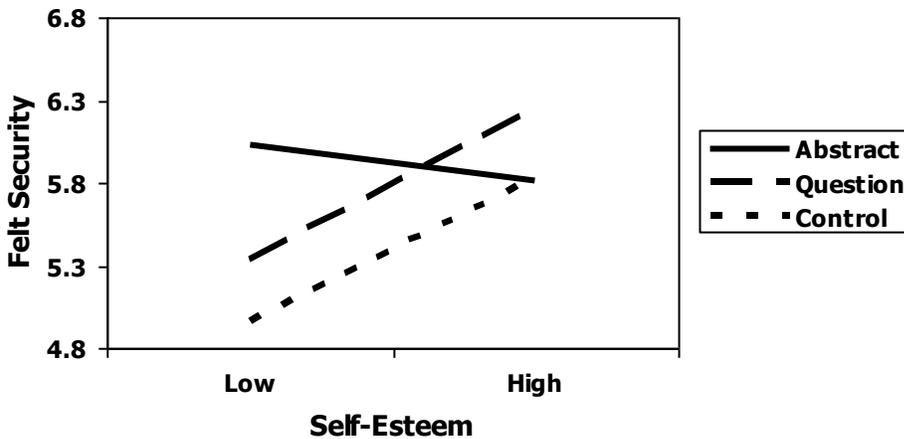*Figure 3*. Felt Security as a function of condition and SE (+ or − 1SD): Study 3

Discussion

In the control condition, LSEs were less enthusiastic about specific instances of positive feedback from their romantic partners than were HSEs, as in the previous studies. They also tended to report lower state self-esteem, less relationship security, and less relationship valuing. In the question condition, when

LSEs were led to simply consider whether the feedback might indicate that their partner admired them in general, their responses on these measures did not differ from those of LSEs in the control condition. LSEs benefited from recounting a compliment only in the abstract condition, where they were instructed to describe the meaning and significance of the compliment. Thus, the findings of Study 3 replicated and extended Study 2 in an important way, by showing that the cognitive reframing of the positive feedback must be subtly implied in order to avoid activating LSEs' self-evaluative concerns.

One unexpected finding was that HSEs reported valuing their relationships more highly in the question condition than in the control condition during the initial session. This effect may have been a compensatory reaction for HSEs, who tend to respond to potential relationship threats by affirming the relationship (Murray et al., 1998, 2002). I do not believe that questioning the meaning and significance of the compliment was a considerable threat to HSEs. However, when the questioning raised some doubts, HSEs probably compensated by recruiting additional positive thoughts and memories in support of their partners' admiration (Dodgson & Wood, 1998; Smith & Petty, 1995). Thus, they were even more enthusiastic than usual about the relationship.

Study 4: Refining the Abstract Reframing Intervention and Investigating its Effects on Partners

There were two purposes to Study 4. One was to determine whether LSEs needed to be anchored by a concrete example of a compliment their partner gave them prior to describing the compliment in a broad, abstract manner. I wondered whether LSEs would react favorably if I asked them initially to think of a quality their partner admires about them. I suspected that LSEs do not naturally code their partners' expressions of positive regard as evidence of being admired, so they might have more difficulty thinking of an admired quality than thinking of a specific compliment that was once paid to them. Further, raising the specter of broader admiration risks activating general evaluative concerns of the sort posited in the question condition from Study 3. My hypothesis was that LSEs who were asked to think of an admired quality would not report increases in positive feelings and relationship quality as would LSEs who were asked to recall a specific compliment and subsequently reframe it as an expression of admiration (as in the previous two studies).

Second, I solicited reports from participants' partners at Time 2 to examine whether LSEs who reported increases in felt security and relationship valuing after the abstract reframing intervention appeared to change their behaviour towards their partners in a positive way. To show that the effects of the intervention are not simply "all in the heads" of participants would be an important step in affirming the usefulness of this reframing technique as a method for relationship improvement.

Method

Participants and Procedure

One hundred twenty-seven undergraduate students (29 men and 98 women) who were currently in romantic relationships participated in a two-part online study of "Relationship Perceptions" in exchange for course credit. The majority of participants identified themselves as "dating" (103). Additionally, 12 participants were "living together," two were "engaged," and 10 were "married." Mean age was 21 years and mean relationship length was 29 months.

At the end of Part 1, participants were asked to provide the first name and email address of their romantic partner (until this point, the procedure was identical to Studies 2 and 3). They were told that the researcher wanted to contact their partner to complete a short questionnaire at the same time the participant completed Part 2. They were encouraged to discuss the research opportunity with their partners in advance to be sure that their partners were willing to be contacted by the researcher. Participants were assured that they would receive participation credit regardless of whether they provided their partner's information or whether the partner chose to participate. In all, 83 participants provided their partner's information, and 57 of those partners participated. Four of the partners were excluded from analyses because their relationships had ended since Part 1, leaving 53 partners (45 men and 8 women) for analysis (42 % of the Part 1 sample or 58% of the Part 2 sample). Participants who provided partner's contact information were higher in felt security ($t(125) = -2.71$, $p < .01$) and relationship valuing ($t(125) = -3.19$, $p < .01$), but not in self-esteem ($t(125) = .70$, ns), than those who did not provide their partner's contact information.

Of the 97 participants who completed Part 2, six were excluded from analyses because they had broken up with their partners since completing Part 1. This left 91 participants in the Part 2 sample (16 men and 75 women), which comprised 72% of the original sample. The Part 2 sample was somewhat higher initially in compliment positivity, state self-esteem, felt security, and relationship valuing. However, these differences are completely accounted for by the participants who broke up with their partners since Part 1; they do not hold for participants who simply chose not to complete Part 2. All participants received the same questionnaire regardless of which condition they were assigned to in Part 1

Participants' Materials

The participants' materials for Parts 1 and 2 were identical to Study 3, with the exception of the compliment manipulation and one additional compliment question.

Compliment manipulation. Participants who were assigned to the abstract description condition (N = 44) and to the control condition (N = 43) were asked to "Think of a time when your partner told you how much he/she liked something about you. For example, a personal quality or ability you have that he/she thinks very highly of, or something you did that really impressed him/her." They recorded a few cue words to identify the compliment. Participants in the abstract description condition were then asked to "Explain why your partner admired you. Describe what it meant to you and its significance for your relationship." Participants in the control condition were simply asked to "Describe the event in the space below." Participants in the abstract quality condition (N = 40) were asked to "Think of something your current romantic partner admires about you, that means a lot to you and is significant for your relationship. For example, a personal quality or ability you have that he/she thinks very highly of, or something you do that really impresses him/her." They recorded a few cue words to identify the quality, and were then asked to "Describe a specific time when your partner told you how much he/she admired this about you." All participants noted how long ago this compliment occurred.

The main difference between the *abstract description* condition (which was identical to the abstract condition used in the previous two studies) and the *abstract quality* condition was that the former asked participants to write abstractly about a compliment (i.e., about the meaning and significance of their

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partners' admiration for them) after being anchored by a specific occasion on which they received the compliment. The *abstract quality* condition, on the other hand, asked participants to think abstractly about a quality their partner admires about them and that is meaningful and significant to them prior to recalling any concrete example of receiving a compliment about this quality.

Compliment questions. The same compliment questions were used as in Studies 2 and 3, with one addition: "How broad was your partner's praise for you?" (1 = *about my behaviour only* to 7 = *about me as a person*) was added to the abstraction index (along with how meaningful and significant was the compliment). Cronbach's α for the four indices of compliment positivity were as follows: .82 for positive feelings, .62 for abstraction, .22 for attributions, and .81 for frequency.

Partner Materials

Trait self-esteem. Partners completed the Rosenberg Self-Esteem scale (α = .84).

Frequency of positive and negative partner behaviour. Partners were instructed to "think about what has happened in your relationship in the last 2 weeks." They rated the frequency of the same four positive (α = .74) and four negative partner behaviours (α = .78) that the participant rated. They also rated how often they believe they had done each of these behaviours (α = .80 for positive and α = .81 for negative), for comparison with the participant's reports of the partner's behaviour.

Relationship quality. Partners rated the same items assessing felt security (α = .78), commitment (α = .79), and satisfaction (α = .74) as did the participants in Part 2.

Results

Analyses were conducted as in the previous two studies. Predicted values are reported in Table 4.

Part 1

Compliment questions. Unlike Studies 2 and 3, the condition x SE interaction on the composite of compliment positivity questions was not significant. For this study I analyzed the four compliment indices separately.

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There was a main effect of SE (β = .24, $t(120)$ = 2.76, p < .01) and a condition x SE interaction (β = -.24, $t(120)$ = -2.30, p < .05) on perceived frequency of compliments. Simple effects revealed that there was a significant effect of SE on frequency in the control condition (β = .34, $t(120)$ = 2.51, p < .05) and in the abstract quality condition (β = .43, $t(120)$ = 2.58, p < .05), but not in the abstract description condition (β = -.04, ns). HSEs in the abstract quality condition reported greater frequency of compliments than did HSEs in the abstract description condition (β = .33, $t(120)$ = 2.38, p < .05) . The control condition was intermediate to, and not significantly different from, the other two conditions (ps > .18). LSEs showed no significant effects of condition, but did tend to report greater compliment frequency in the abstract description condition than in the control condition (β = .21, $t(120)$ = 1.54, p = .13), a finding that was statistically significant in the previous two studies.

There were main effects of SE on participants' feelings about the compliment (β = .29, $t(120)$ = 3.32, p < .01), on abstraction (β = .18, $t(120)$ = 2.00, p < .05), and on attributions (β = .37, $t(120)$ = 4.30, p < .01). Compared to HSEs, LSEs tended to feel less positively about the compliments, viewed the compliments less abstractly, and made less positive attributions (i.e., rated the compliment as being less sincere and deserved). There were no effects involving condition on these measures.

State self-esteem. There was a main effect of SE (β = .68, $t(120)$ = 10.72, p < .01) that was qualified by a condition x SE interaction (β = -.29, $t(120)$ = -2.09, p < .05) on state self-esteem. Simple effects revealed that compared to LSEs in the control condition, LSEs in the abstract quality condition reported higher state self-esteem (β = .29, $t(120)$ = 2.85, p < .01), as did LSEs in the abstract description condition, although this effect was not significant (β = .15, $t(120)$ = 1.49, p = .14). There were no effects of condition at HSE. The effect of SE on state self-esteem was significant in all conditions: control (β = .78, $t(120)$ = 8.02, p < .01), abstract quality (β = .48, $t(120)$ = 4.01, p < .01), and abstract description (β = .77, $t(120)$ = 7.01, p < .01).

Relationship quality. There was a main effect of SE (β = .47, $t(120)$ = 6.00, p < .01) that was qualified by a condition x SE interaction (β = -.20, $t(120)$ = -2.09, p < .05) on felt security. As expected,

LSEs felt significantly less secure than HSEs in the control condition ($\beta = .62$, $t(120) = 5.10$, $p < .01$) and in the abstract quality condition ($\beta = .56$, $t(120) = 3.73$, $p < .01$), but only marginally less secure in the abstract description condition ($\beta = .24$, $t(120) = 1.75$, $p < .09$). LSEs in the abstract description condition felt more secure than did LSEs in the control condition ($\beta = .28$, $t(120) = 2.26$, $p < .05$).

The measure of relationship valuing revealed main effects of condition ($\beta = .23$, $t(120) = 2.34$, $p < .05$) and SE ($\beta = .28$, $t(120) = 3.30$, $p < .01$) but no interaction. However, the predicted values are reported in Table 4 for comparison with the other dependent variables in this study, and with the effects on relationship valuing in Studies 2 and 3. Raw means indicate the highest relationship valuing in the abstract quality condition (M = .27), the next highest in the abstract description condition (M = -.06), and the lowest in the control condition (M = -.18).

Verb tense. As in Study 3, there were only main effects of condition on verb tense. The conditions differed in their proportion of both past tense verbs ($\beta = -.24$, $t(121) = -2.35$, $p < .05$) and present tense verbs ($\beta = .27$, $t(121) = 2.62$, $p < .01$). Specifically, participants in the abstract description condition used fewer past tense verbs (M = 52.0%) than did those in the abstract quality (M = 63.1%; $\beta = -.20$, $t(121) = -1.89$, $p = .06$) and control conditions (M = 64.4%; $\beta = -.22.$, $t(121) = -2.16$, $p < .05$). As well, participants in the abstract description condition used more present tense verbs (M = 45.5%) than did those in the abstract quality (M = 32.9%; $\beta = .23$, $t(121) = 2.28$, $p < .05$) and control conditions (M = 33.4%; $\beta = .23$, $t(121) = 2.25$, $p < .05$). Even though LSEs in both abstract conditions tended to report equally positive outcomes, the abstract description condition seemed to yield more present and fewer past tense verbs than did the abstract quality condition.

Part 2

In analyzing participant's Part 2 data, the amount of time elapsed since Part 1 (M = 15.4 days) was centered and included as an additional covariate.

Frequency of positive and negative partner behaviour. In contrast to Studies 2 and 3, there were no significant effects on this measure.

Relationship quality. There was a significant interaction on relationship valuing ($\beta = -.30$, $t(83) =$ -2.09, $p < .05$). None of the simple effects reached significance, but consistent with previous studies, there was a trend for LSEs who had been in the abstract description condition to report higher relationship valuing than LSEs who had been in the control condition ($\beta = .25$, $t(83) = 1.42$, $p = .16$). There was also a trend for HSEs who had been in the abstract description condition to report less relationship valuing then HSEs who had been in the abstract quality condition ($\beta = -.34$, $t(83) = -1.83$, $p < .08$), or the control condition ($\beta = -.30$, $t(83) = -1.65$, $p = .10$). There were no significant effects on felt security at Time 2.

Compliment questions. There were no significant effects on any of the compliment-related scales in Part 2.

Partners

Frequency of positive and negative participant behaviour. In these analyses, I also controlled for the time between participants' completion of Part 1 and partner's completion of their survey ($M = 16.5$ days), and for partner's level of self-esteem (which in Studies 2 and 3 I showed to be related to perceptions of positive and negative behaviour). On partners' perceptions of participants' negative behaviour there was a marginal condition x SE (of participant) interaction ($\beta = .42$, $t(44) = 1.88$, $p < .07$). Simple effects revealed that the partners of LSEs who had been in the abstract description condition or the abstract quality condition reported fewer negative behaviours from those LSEs, compared to the partners of LSEs who had been in the control condition ($\beta = -.46$, $t(44) = -2.25$, $p < .05$ and $\beta = -.67$, $t(44) = -2.67$, $p < .05$, respectively). In other words, LSEs who had been in one of the two abstract reframing conditions in Part 1 of the study apparently behaved less negatively towards their partners in the following two weeks, compared to LSEs who had been in the control condition. As well, the effect of SE was significant in the control condition ($\beta = -.48$, $t(44) = -2.54$, $p < .05$), such that LSEs typically behaved more negatively towards their partners than did HSEs. The effect of SE was not significant in either of the other two conditions ($ps > .13$).

I checked to see whether the effect on participants' Time 2 relationship valuing mediated this effect, but the criteria for mediation were not met. Interestingly, however, when Time 2 felt security and relationship valuing were both added to the regression, relationship valuing significantly predicted partners' reports of participants' negative behaviour ($\beta = -.43$, $t(42) = -2.45$, $p < .05$). Felt security did not ($\beta = .09$, *ns*). The condition x SE interaction remained marginally significant ($p < .09$). The foregoing result does support the aspect of my model proposing that the more people value their relationships, the less negatively they behave towards their partners.

There were no other effects on the partner's self-report data.

Table 4
Predicted values for control, abstract quality, and abstract description conditions at low and high SE: Study 4

Dependent Variable	Low SE			High SE		
	Control	Abstract Quality	Abstract Description	Control	Abstract Quality	Abstract Description
Part 1						
Sincerity	6.31_{ab}	6.12_b	6.61_a	6.77_{cd}	7.14_c	6.65_{ad}
Frequency	5.51_a	5.73_a	5.97_a	6.23_{bc}	6.67_c	5.89_{ab}
State Self-Esteem	4.59_a	5.23_b	4.90_{ab}	6.17_{bc}	6.23_c	6.48_c
Felt Security	4.95_a	5.34_{ab}	5.58_b	6.27_c	6.52_c	6.08_{bc}
Relationship Valuing*	-.58	.08	-.21	.26	.44	.07
Part 2						
Relationship Valuing	5.67_a	5.93_a	6.28_a	6.39_a	6.49_a	5.66_a
Frequency of negative participant behaviour (reported by partner)	2.67_a	1.46_b	1.93_b	1.93_b	2.36_b	2.07_b

Note. Simple effects test were conducted comparing differences between conditions at LSE, differences between conditions at HSE, and LSEs to HSEs within each condition, for each dependent variable. In each row, predicted scores for the cells that were compared that do not share any subscripts differ at $p < .05$. Low and high SE were calculated at + or − 1 SD.
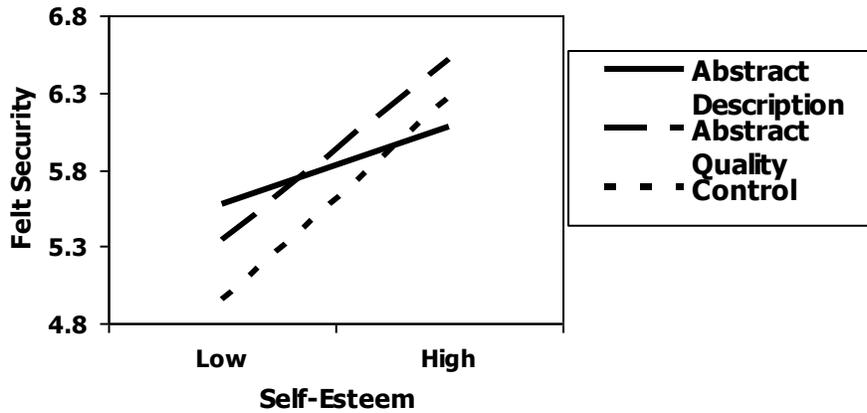*Main effects of condition and SE only; interaction not significant

Figure 4. Felt security as a function of condition and SE (+ or – 1SD): Study 4

Discussion

Results from the control and abstract description conditions largely replicated the findings from the previous two studies. In addition, in contrast to my prediction, the current study demonstrated that LSEs did not need to be anchored by a concrete example of a compliment prior to describing the compliment in an abstract manner. They reacted just as positively when asked initially to think of a quality their partner admires about them that is meaningful and significant to the relationship. I suspected they might have difficulty thinking of a compliment framed in this broad way and that would undermine the effect. However, this was not the case. It may be especially affirming to think of a quality one's partner admires about oneself because people often admire qualities in others that they lack in themselves. LSEs are prone to seeing themselves as inferior to their partners (Murray et al., 2005), so they would be pleased to feel that they were on a more equal footing, at least temporarily.

The most intriguing finding from this study was that compared to LSEs who had been in the control condition, LSEs who had been in either of the two the abstract conditions actually seemed to behave less negatively towards their partners following the intervention, as reported by their partners. Being affirmed by their partners' kind words indeed made LSEs behave in more relationship-promotive ways. One question that remains is how this decrease in negative behaviour manifested in an everyday context. One possibility is that the change was evident in LSEs' reactions to perceived threats – mundane

slights, hurt feelings, and disappointments that are likely to have occurred at least a couple of times over

the course of the intervening two or three weeks. I test this explanation experimentally in Study 5.

Study 5: The Abstract Reframing Intervention as a Buffer to Relationship Threats

LSEs respond to even minor relationship threats by withdrawing and derogating their partners, a

strategy which is self-protective but relationship-destructive (Murray et al.,1998; 2002). These defensive

behaviours eventually decrease their partners' satisfaction with the relationship (Murray, Bellavia, et al.,

2003; Murray, Griffin, et al., 2003). HSEs are confident enough in their partners' enduring positive regard

that they are able to avoid taking threats to heart. In Study 5 I tested whether increasing LSEs' felt

security through the abstract reframing intervention would similarly buffer LSEs from the deleterious

effects of a minor relationship threat.

Method

Participants and Procedure

Seventy-six undergraduate students (21 men and 55 women) in exclusive dating relationships

participated in a study of "Relationship Perceptions" in exchange for course credit. Mean age was 20

years and mean relationship length was 21 months.[3]

The entire study was completed online. Participants first completed the measure of self-esteem,

and demographic questions were asked at the end of the study. The order of the rest of the questionnaires

varied by condition. The threat condition ($N = 28$) first completed the threat manipulation, then the

measures of state self-esteem and relationship quality, and finally the compliment questionnaire. The

buffered-threat condition ($N = 24$) first completed the compliment questionnaire, then received the threat,

and finally rated state self-esteem and relationship quality. The control condition ($N = 24$) rated

relationship quality and state self-esteem prior to receiving the threat, and ended with the compliment

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[3] The initial sample included 109 participants. In addition to the 76 participants in exclusive dating
relationships, there were 6 in casually dating relationships, 9 who were living with their partners, 5 who were
engaged, and 13 who were married. The majority of these latter 27 participants had trouble coming up with answers
to the threat manipulation and so were dropped from analyses. The casually dating participants were also dropped on
the assumption that they would be less motivated to maintain a highly positive image of themselves and so would
not be as distressed by the threat as would be exclusively dating participants. Results were in the same direction but
weaker when these participants were included.

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questionnaire. Thus, the main dependent variables (state self-esteem and relationship quality) were completed first in the control condition in order to establish baseline ratings, immediately following a threat for the threat condition, and following a threat that was preceded by a compliment description for the buffered-threat condition.

Materials

Trait self-esteem. Participants responded to the 10 Rosenberg (1965) Self-Esteem items as in previous studies (α = .93).

Threat manipulation. Participants were given a "secret selves questionnaire" adapted from Murray et al. (2002). The instructions noted that "Most individuals have some more negative sides to their personal habits, preferences, or personality traits that they rather their partners not fully see… Researchers are interested in these 'secret selves' because partners eventually discover one another's more negative sides and conflicts could develop as a result." They were provided with five categories of potentially negative things people might want to keep from their partners (habits or behaviours, personal preferences or opinions, personality characteristics, private thoughts, and personal history) and asked to give examples of the three that were most relevant for them. They were also asked to describe how their partners might react to this aspect of themselves being revealed.

Compliment manipulation. Participants were asked to "Think of a time when your partner told you how much he/she liked something about you. For example, a personal quality or ability you have that he/she thinks very highly of, or something you did that really impressed him/her." They noted how long ago this event occurred, and were then asked to "Explain why your partner admired you. Describe what it meant to you and its significance for your relationship." This was the same abstract reframing condition as in the previous three studies.

State self-esteem. The same measure of state self-esteem was used as in Studies 2-4, α = .87.

Relationship quality. The same measures of felt security (α = .91) and relationship valuing (α = .94) were used as in Studies 2-4.

Results

Analyses were conducted in the same way as previous studies. All dependent variables were regressed on condition (threat vs. buffered-threat vs. control), SE, and the condition x SE interaction. Predicted values are reported in Table 5. There were no differences between conditions for HSEs on any of the dependent variables.

State self-esteem. Main effects of condition ($\beta = -.21$, $t(70) = -2.01$, $p < .05$) and SE ($\beta = .59$, $t(70) = 6.16$, $p < .01$) were qualified by a condition x SE interaction ($\beta = .30$, $t(70) = 2.79$, $p < .01$). As would be expected, trait self-esteem was positively related to state self-esteem in all conditions (control condition: $\beta = .29$ $t(70) = 1.82$, $p < .08$; threat condition: $\beta = .99$ $t(70) = 5.16$, $p < .01$; buffered-threat condition: $\beta = .47$, $t(70) = 3.48$, $p < .01$). LSEs in the threat condition and the buffered-threat condition had lower state self-esteem than did LSEs in the control condition ($\beta = -.66$, $t(70) = -3.82$, $p < .01$ for threat to control comparison; $\beta = -.35$, $t(70) = -2.43$, $p < .05$ for buffered-threat to control comparison), but the drop was larger for LSEs in the threat condition. LSEs in the threat condition had marginally lower state self-esteem than LSEs in the buffered-threat condition ($\beta = -.29$, $t(70) = -1.95$, $p < .06$).

Felt security. Main effects of condition ($\beta = -.25$ $t(70) = -1.97$, $p = .05$) and SE ($\beta = .30$, $t(70) = 2.57$, $p < .05$) were qualified by a condition x SE interaction ($\beta = .29$ $t(70) = 2.24$, $p < .05$). LSEs reported lower felt security in the threat condition than in either the control condition ($\beta = -.57$, $t(70) = -2.69$, $p < .01$) or the buffered-threat condition ($\beta = -.45$, $t(70) = -2.42$, $p < .05$). Importantly, among LSEs, the buffered-threat condition did not differ from the control condition ($\beta = .11$, *ns*). The simple effect of SE on felt security was significant only in the threat condition ($\beta = .71$, $t(70) = 2.97$, $p < .01$).

Relationship valuing. There was a significant main effect of condition ($\beta = -.30$, $t(70) = -2.35$, $p < .05$) and a marginal main effect of SE ($\beta = .24$, $t(70) = 2.01$, $p < .05$) that were qualified by a marginal condition x SE interaction ($\beta = .24$, $t(70) = 1.82$, $p < .08$). Similar to the results for felt security, LSEs valued their relationships less in the threat condition than in the control ($\beta = -.54$, $t(70) = -2.54$, $p < .05$)

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or buffered-threat conditions ($\beta = -.47$, $t(70) = -2.46$, $p < .05$). Among LSEs, the buffered-threat condition did not differ from the control condition ($\beta = .08$, *ns*). The simple effect of self-esteem was significant only in the threat condition ($\beta = .57$, $t(70) = 2.37$, $p < .05$).

Mediation. Mediation analyses (Sobel, 1982) showed that the interaction effect on felt security was mediated by state self-esteem ($z = 1.99$, $p < .05$), and felt security, in turn, mediated the effect on relationship valuing ($z = 2.22$, $p < .05$). Baron and Kenny's (1986) four requirements for mediation were also met for these analyses (see Study 2 for explanation). These analyses indicate that decreased feelings of personal worth led threatened LSEs (who were not buffered by an abstract compliment description) to feel less secure in their partners' love and acceptance, which in turn led them to devalue their relationships.

Table 5
Predicted values for control, buffered-threat, and threat conditions at low and high SE: Study 5

Dependent Variable	Low SE			High SE		
	Control	Buffered -Threat	Threat	Control	Buffered -Threat	Threat
State Self-Esteem	5.54_a	5.00_b	4.45_b	6.06_{ac}	5.76_c	6.07_c
Felt Security	6.07_a	5.49_a	4.40_b	5.81_a	5.99_a	5.96_{ac}
Relationship Valuing	$.34_a$	$.00_a$	$-.89_b$	$.24_a$	$.20_a$	$.11_{ac}$

Note. Simple effects test were conducted comparing differences between conditions at LSE, differences between conditions at HSE, and LSEs to HSEs within each condition. In each row, predicted scores for the cells that were compared that do not share subscripts differ at $p < .05$. Low and high SE were calculated at $+$ or $-$ 1 SD.
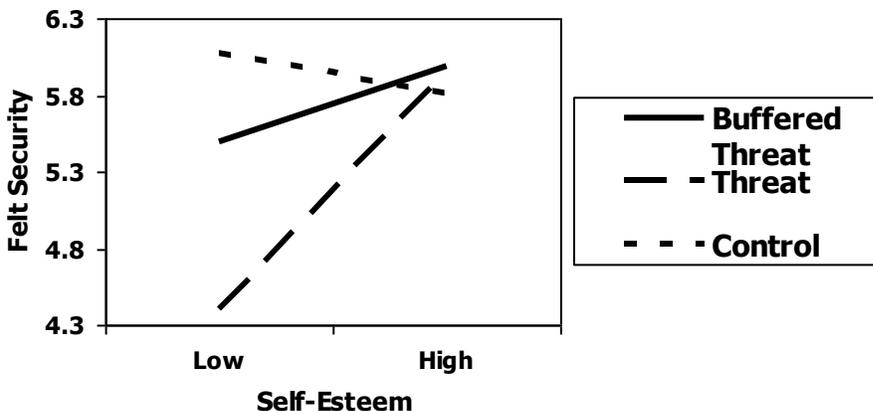

Figure 5. Felt security as a function of condition and SE ($+$ or $-$ 1SD): Study 5

Discussion

Study 5 demonstrated that using the abstract reframing intervention to increase LSEs' sense of self-worth and felt security prevented them from devaluing their relationships when faced with a relationship threat. This finding sheds some light on why partners of LSEs who had received the abstract reframing intervention reported decreased frequency of negative behaviour from the LSEs. LSEs might have behaved less defensively in response to threats that arose in the two or three weeks following the intervention. The results of daily diary studies suggest that their typical response to even ambiguous threats of rejection in everyday life is to become upset, reactive, and hostile (Murray et al., 2003).

The findings from Study 5 are important in demonstrating that LSEs' tendency towards defensive, negative behaviour is not a fixed aspect of their personalities. When induced to feel as secure as HSEs feel, they respond to threats just as positively as HSEs do.

General Discussion

Maintaining a secure and satisfying romantic relationship is particularly challenging for LSEs; they have more doubts about their partners' love than do HSEs (Murray et al., 2000), but they are less likely to benefit from their partners' expressions of positive regard (Collins et al., 1996; Lemay & Clark, 2008; Murray et al., 1998). The present findings suggest reason for optimism, however. Study 1 showed that LSEs are not as dismissive of compliments directed to others as they are of compliments directed to themselves, suggesting that their negative reaction is a form of motivated self-protection that can be overcome if self-protection concerns are alleviated. In Studies 2-4, I showed that LSEs could be induced to take their partners' kind words to heart by describing a compliment in a more abstract, meaningful way. This abstract reframing intervention affected numerous outcomes reported by the participant in a positive manner, including perceptions of the compliment, state self-esteem, and relationship quality, both immediately and two to three weeks later. Impressively, the partners of LSE participants who had been in the abstract reframing condition also reported a positive change in the participants' behaviour towards them (Study 4). Finally, Study 5 showed that the abstract reframing intervention prevented LSEs from

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engaging in self-protective, relationship-destructive reactions when threatened. These latter two findings affirm the usefulness of this intervention as a method for relationship improvement.

It is important to note that in the control condition, LSEs were less positive about the compliments than were HSEs. LSEs tended to dismiss specific compliments as little more than isolated occurrences, whereas HSEs naturally saw broader implications about their value in specific compliments. This self-esteem difference in taking compliments to heart has never been directly shown before. However, other research has suggested that in general LSEs seem to adopt a rather myopic view when it comes to appraising positive relationship events. They focus on that one particular incident and fail to consider its implications for the relationship more broadly (cf. Campbell et al., 2005). This finding supports our contention that LSEs are relatively unwilling to take the risk of embracing positive feedback from their partners lest it turn out that, as suspected, they were not really valued so much after all.

One alternative explanation is that LSEs feel uncomfortable accepting compliments because they do not believe that the compliments are accurate, and prefer to receive information that verifies their negative self-views (Swann et al., 2003). However, several studies have shown that although LSEs are more likely to believe negative feedback (Swann et al., 2003), they would much rather receive positive feedback (Murray et al., 2000; Swann, De La Ronde, & Hixon, 1994, for dating but not married couples). In addition, recent research suggests that the most positive relationship perceptions occur when people believe that their partner's views of them are both accurate (i.e., highly correlated with self-ratings of personal qualities) and positively biased (i.e., higher on average than participants' self-ratings) (Lackenbauer, Campbell, Rubin, Fletcher, & Troister, 2008). The present research showed quite clearly that under the right circumstances, LSEs can truly savor positive feedback.

Another alternative explanation for LSEs' natural inclination to be relatively unenthusiastic about their partners' compliments is that LSEs are unable to recall compliments that are as positive as HSEs. To address this issue we had two coders who were blind to participants' SE levels rate how positive the compliments were in Studies 2 and 3 (focusing on the nature of the compliments and not on how positively they were described, which would be affected by the manipulation). Across the two studies, the

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correlation between positivity and SE was $r(213) = .03$, ns. Thus, it does not appear that LSEs recall less positive feedback from their partners than do HSEs. Rather, LSEs are more hesitant to take positive feedback to heart.

The current studies, however, demonstrate that LSEs can be encouraged to see their value to their partners, even to believe that they are loved and accepted as much as HSEs perceive themselves to be. This is, in fact, the truth: LSEs are regarded just as positively by their partners as are HSEs (Murray et al., 2000, 2001), at least until their unwarranted insecurities become problematic for their partners. In all studies, HSEs were relatively unaffected by the manipulation of the abstractness of the compliment. We suspect that their confidence in their partners' love allows them to spontaneously make the most of positive feedback.

<center>*Possible Mechanisms of the Effect*</center>

Why did the abstract reframing intervention have such powerful, long-term effects on participants' perceptions and behaviours? The five studies presented here do not allow me to conclusively answer this question, but certainly they can shed some light on it.

Self-perpetuating cycle of security. The abstract reframing intervention may have taught LSEs a new way of thinking about other instances of positive feedback from their partners, and they kept these more abstract framings in mind as they considered the quality of their relationship in general. Furthermore, upon completing the first session of the study, LSEs may have viewed subsequent positive behaviours from their partners in a more abstract way, which would boost their felt security, which would increase the chance they would perceive further positive partner behaviours (Studies 2 and 3). This self-perpetuating cycle of security may account for the maintenance of the effects of a five-minute intervention over a two- to three-week period.

Self-generated feedback. Participants came up with an example of feedback they had received in the past and then those who were assigned to the abstract reframing condition were encouraged to make more meaning of it. They were not directly told by the researcher that they had scored high on some positive attribute, or that their partner thought very highly of them, relative to other people, which has

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been shown to make them feel worse (Logel et al, 2008; Murray et al., 1998; Wood et al., 2005). I suspect that our approach avoided two potential pitfalls of the false feedback paradigm. One is the issue of social comparison. LSEs are less certain than HSEs that upon comparing themselves to others they will emerge as superior (Baumeister, Tice, & Hutton,1989; Taylor & Brown, 1988), so in some situations LSEs self-protectively shy away from social comparison information (see Baumeister et al., 1989, and Wood & Lockwood, 1999, for reviews). But even being presented with a comparison that is clearly in their favor may be threatening for LSEs if it prompts them to evaluate how they measure up to others more generally, and especially to their partner, to whom they typically feel inferior (Murray et al., 2005).

The second issue is the potential to disappoint close others. LSEs are doubtful about possessing numerous positive qualities, and may or may not be confident about possessing the particular qualities on which a researcher decides to give positive feedback. They may try to judge how well the feedback fits with their self-conceptions (Wood et al., 2006), a process that could yield thoughts and memories both in support of and against a favorable conclusion (cf. Showers, 1992). Thus, many LSEs would feel uncertain that they could live up to the expectation suggested by the false feedback. In choosing the specific example of positive feedback themselves, as in my intervention, I assumed LSEs would choose a quality that they were relatively certain of possessing. Importantly, in a pilot study I found that LSEs did not find it any more difficult than HSEs to think of such an example.

"Safe" enhancement opportunity. The abstract reframing intervention may have been effective because it provided a safe enhancement opportunity for LSEs. LSEs are more interested in protecting the self against loss than are HSEs (Baumeister et al., 1989), taking only those opportunities for self-enhancement that seem sure to affirm the self (Rudich & Vallacher, 1994; Wood, Giordano-Beech, Taylor, Michela, & Gaus, 1994). In the abstract condition, I presented the broad meaning and significance of the positive feedback as a foregone conclusion. The assumption inherent in the instructions was that the compliment was unquestionably an important expression of positive regard. In Study 3, when I posed meaning and significance as a question, there was no benefit to LSEs. Thus, only when there were no doubts about its importance did LSEs feel safe to embrace their partners' positive feedback.

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Furthermore, instead of attempting to give participants a global sense of acceptance, my intervention made one particular quality that participants had demonstrated in the past appear to have more global implications. The suggestion that participants' partners highly valued something specific about them, not that they highly valued the participant overall, should be a safer and more acceptable conclusion for LSEs. Fortunately, they were able to take this to the next level and make their own conclusions about how much their partners valued them more generally, as demonstrated by increased state self-esteem and felt security (Studies 2-4). In fact, the conclusions LSEs drew were impressively broad – some of the items in the felt security measure included "My partner loves and accepts me unconditionally" and "I am confident my partner will always want to stay in our relationship."

Bringing the past into the present. A state verb like "admired" (used in the abstract reframing condition) in contrast to an action verb like "said" (used in the concrete condition) implies more about the subject of the verb and less about the context of the action (Semin & Fiedler, 1988), and leads to the perception that an event is more likely to recur in the future and has lasted for a longer period (Semin & DePoot, 1997). Thus, being admired (vs. having something nice said to them) might have persuaded LSEs to perceive their partner's positive evaluation as more enduring.

In support of this notion, participants showed increased use of present tense verbs and decreased use of past tense verbs in the abstract condition (LSEs especially in Study 2; all participants in Studies 3 and 4). This finding suggests that in the abstract condition, LSEs came to view the compliments less as isolated incidents of flattery and more as evidence of their partners' continuing admiration. Viewing one compliment in a broader way may have increased LSEs' confidence that they possess many admirable qualities. However, because the condition x self-esteem interaction was present in only one of the three studies, I believe this verb tense effect played a very small role, if any, in eliciting LSEs' more positive responses to the compliment.

<center>*Further Questions and Future Research*</center>

A question that remains to be addressed is whether these results would replicate with a married sample (at most, 7% of the sample was married in these studies). Given that dependence regulation

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processes have been demonstrated to operate similarly in both dating and married couples (Murray et al., 2006), I suspect that there would be a similar pattern of results with an entirely married sample of participants. However, the effects might be weaker. Because people attend to and weight more heavily the signs of their partners' caring and commitment in early stages of relationships (Fletcher, Fincham, Cramer, & Heron, 1987), individuals in long-term relationships (whether married or not) may be less affected by thoughts of a simple compliment. As well, married couples may be more motivated to have negative self-views verified by their partners (Swann et al., 1994) and therefore be resistant to the intervention.

Thus far I have shown that the positive effects of the abstract reframing intervention last two to three weeks. In the future I would like to conduct a longer-time follow-up, for example, checking back with participants at 4 weeks, 2 months, and possibly longer. Along these lines, I also plan to conduct a daily diary study examining whether LSEs will spontaneously describe their partners' positive behaviour in a more abstract manner some time after an initial training exercise (i.e., one or two runs through my abstract reframing intervention), without further prompting from the researchers.

In Study 5 I showed that the abstract reframing intervention alleviated the drop in felt security that LSEs typically experience after threat, and consequently prevented them from derogating their relationship (see Murray et al.,1998). An important next step would be to see whether this translates into decreased negative *behaviour* during an actual conflict discussion (cf. Simpson, Rholes, & Phillips, 1996). I expect that LSEs who are given the opportunity to describe positive feedback from their partner abstractly prior to discussing a conflict in their relationship (compared to LSEs not given this opportunity) will behave less critically and more constructively during the conflict discussion, according to both their partners and to objective raters coding videotapes of the discussions. I further expect that these LSEs will perceive their partner as being more responsive to them (more understanding, supportive, etc.) and in turn be more responsive to their partners.

In the studies presented here I focused on changing the way LSEs think about their partner's positive feedback because I thought that would be optimal for both LSEs and their partners; it would be

empowering for LSEs to learn how to help themselves, and liberating for LSEs' partners to not have reassurance constantly demanded from them. However, it is quite possible that it would not be too wearisome for partners to play a small role in helping LSEs maintain their newfound sense of security. My idea draws from research on capitalization – the process of communicating personal positive events with others. Capitalization is associated with increased daily positive affect, personal well-being (Gable, Reis, Impett, & Asher, 2004), and relationship well-being, particularly when one's partner responds to capitalization attempts enthusiastically (Gable, Gonzaga, & Strachman, 2006). In a future study I plan to vary partner's responses to participants' disclosure of a positive quality. Participants would be asked to describe an event where they demonstrated a personal quality about which they are particularly proud. Their partners would be encouraged to respond either concretely (e.g. "That's a good example of acting generously") or abstractly (e.g., "You really are a generous person – I admire that about you!"). I expect that LSEs would experience some increase in positive affect and self-esteem simply by sharing a proud moment, but these positive feelings would be particularly enhanced when their partner responded abstractly. I further expect that these abstract responses would increase perceived responsiveness and willingness to disclose both positive and negative events to the partner, and consequently increase the partner's feelings of closeness.

Theoretical Implications

The present research supports and extends the risk regulation model proposed by Murray et al. (2006). The central tenet of this model is that confidence in a partner's positive regard allows people to put self-protection motives aside and take the risk of thinking and behaving in ways that promote the value of the relationship. The current studies are the first to show that experimentally increasing felt security (through abstract compliment reframing) causes LSEs to value their relationships more highly and to behave more positively towards their partners. As well, it prevents them from derogating their relationships when threatened. These findings help clarify that it is concerns about acceptance, and not a fixed aspect of LSEs' personalities, that causes LSEs to be critical towards their partners (cf. Leary,

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2005). It may be useful to conceptualize LSEs' negative attitudes towards others not as a defining feature of their condition, but as a troublesome symptom that can be treated.

Practical Implications

Clinical researchers have long noted that interventions in marital therapy must go beyond increasing rates of partners' positive behaviours. Individuals should also be trained to attend to these behaviours and make relationship-enhancing attributions for them. Otherwise, LSEs and other individuals dissatisfied with their relationships may frame their partners' positive behaviour in a way that undermines its potentially reinforcing impact (Holtzworth-Munroe & Jacobson, 1985; Robinson & Price, 1980). On the basis of the present studies, I similarly suggest that it would not be sufficient to encourage partners of LSEs to increase their frequency of giving compliments, because LSEs tend not to take compliments to heart. Furthermore, interventions that require LSEs' partners to make more effort to reassure LSEs might be frustrating and tiring for the partners (Van Orden & Joiner, 2006). Rather, LSEs should be encouraged to abstractly frame and generalize from their partners' compliments. After practice using this reframing technique on memories of past compliments, I suspect that LSEs could learn to embrace their partners' current compliments as well.

Improving LSEs' romantic relationships is likely to have larger implications for other aspects of well-being. For example, LSEs' poor quality social bonds (with friends and family members as well as romantic partners) account for at least part of the association between LSE and health problems in university populations (Stinson et al., 2008). If my abstract reframing intervention could be used to increase LSEs' felt security and decrease their defensive behaviours with various significant others (already shown to be effective in friendships; Gaucher et al., 2008), we may actually see an improvement in LSEs' physical health.

On a final note, I want to clarify why I have not focused here on actually raising trait self-esteem. There are numerous factors that determine one's overall level of self-esteem in what is likely a complicated interplay of genetics, family environment, peer experiences, and so forth. I thought it more fruitful to find a way to encourage LSEs to behave more adaptively in their relationships, i.e. to take a less

self-protective and more relationship-promotive approach (like HSEs). My hope, however, is that over the long-term, approaching various people and events in their lives in a more relationship-promotive fashion would accrue more positive social outcomes and feed back to increase LSEs' overall level of self-esteem.

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