CONTINGENT SELF-ESTEEM AND ANTICIPATED REACTIONS TO INTERPERSONAL REJECTION AND ACHIEVEMENT FAILURE

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The anticipated reactivity of individuals with contingent and noncontingent forms of high self-esteem to imagined self-esteem threats were compared across two studies using undergraduate participants. The self-esteem threat manipulation in Study 1 (N = 302) involved asking participants to predict their reactions to discovering that their romantic partner was having a sexual affair, whereas the manipulation in Study 2 (N = 392) asked participants to consider how they would respond if they failed to get a promotion that they really wanted at work. Participants were asked to anticipate their reactions to these scenarios in terms of state self-esteem, positive affect, negative affect, and anger. Our results revealed a tendency for individuals with contingent high self-esteem to predict they would have stronger reactions to these scenarios than individuals with noncontingent high self-esteem. The pattern of these findings suggests that the protective properties of high self-esteem may be largely limited to individuals who are relatively secure about their feelings of self-worth.

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Self-esteem refers to the evaluative aspect of self-knowledge that reflects the extent to which people like themselves (Brown & Marshall, 2006). High self-esteem has been found to be associated with a range of positive outcomes including subjective well-being (Diener & Diener, 1995) and persistence on difficult tasks (Di Paula & Campbell, 2002). Not surprisingly, individuals have consistently been found to show a desire for high self-esteem and are often willing to engage in a variety of strategies to maintain or enhance their feelings of self-worth (Crocker & Park, 2004). One of the advantages that is associated with high self-esteem is that it serves as a resource that protects individuals from potential self-esteem threats such as rejection or failure (e.g., Beck, 1967; Metalsky, Joiner, Hardin, & Abramson, 1993; Orth, Robins, & Meier, 2009; Pyszcynski, Greenberg, Solomon, Arndt, & Schimel, 2004). That is, those with high self-esteem are thought to be less affected by negative experiences and to recover from these sorts of experiences more quickly than individuals with low self-esteem. This basic idea has been referred to using a variety of labels such as the buffer model of high self-esteem and the vulnerability model of low self-esteem (see Zeigler-Hill, 2011, for a review). The underlying rationale of models that emphasize the protective properties of high self-esteem is that negative experiences may be less detrimental for individuals with high self-esteem because of their enhanced coping resources (Arndt & Goldenberg, 2002) and the certainty they have regarding their positive characteristics (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996).

The goal of the present study was to gain a more nuanced understanding of the connection between self-esteem and anticipated reactions to negative events that have the capacity to threaten how individuals feel about themselves (i.e., interpersonal rejection and achievement failure). Previous research concerning the protective properties of high self-esteem has largely focused on self-esteem level without taking into account other properties of self-esteem. This focus on the level of self-esteem may explain the conflicted findings that have emerged concerning the protective properties of high self-esteem (see Orth et al., 2009, for a review) because high self-esteem is a heterogeneous construct (e.g., Roberts, 2006; Roberts & Monroe, 1994). That is, it appears that there are subgroups of individuals with high self-esteem such that some feel genuinely good about themselves whereas others are defensive and conceited. These two forms of high self-esteem are often referred to as secure

high self-esteem and fragile high self-esteem, respectively (Kernis, 2003). Individuals with secure high self-esteem have a solid and realistic basis for their feelings of self-worth that does not require constant validation. In contrast, fragile high self-esteem refers to feelings of self-worth that are vulnerable to challenge, require constant validation, and rely upon some degree of self-deception. As a result, individuals with fragile high self-esteem are preoccupied with protecting and enhancing their vulnerable feelings of self-worth.

It is possible that self-esteem fragility may moderate the anticipated reactions of high self-esteem individuals to events that may threaten their feelings of self-worth. More specifically, we expected that those with fragile high self-esteem would anticipate stronger reactions to these events than those with secure high self-esteem. This expected pattern is due to the uncertainty at the core of fragile self-esteem which may undermine the protective properties of high self-esteem and leave these individuals vulnerable to the deleterious consequences of self-esteem threats. One marker that is commonly used to distinguish between secure and fragile forms of high self-esteem is contingent self-esteem. This fragility marker refers to what an individual believes he or she must do or be in order to have value and worth as a person (Crocker & Wolfe, 2001; Deci & Ryan, 1995).[1] Contingent high self-esteem is considered to be fragile because it can only be maintained as long as the individual is able to successfully meet the standards upon which his or her self-esteem is based (Deci & Ryan, 1995; Kernis, 2003). It is important to note that many of the studies that have focused on contingent self-esteem have not accounted for its interaction with self-esteem level which is necessary to capture fragile high self-esteem. However, recent studies have taken this interaction into account. For example, individuals with contingent high self-esteem (i.e., those who had high scores on measures of self-esteem level and contingent self-esteem) have been found to be more defensive than those with noncontingent high self-esteem (e.g., Kernis, Lakey, & Heppner, 2008) and men with contingent high self-esteem have been found to be more hostile than other individuals with high self-esteem (Zeigler-Hill, Clark, & Beckman, in press). It is important to note that researchers

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1. We will often refer to *contingent* and *noncontingent* forms of self-esteem for conceptual ease and to avoid confusion with self-esteem level. However, it is important to note that contingent self-esteem is a continuous variable with contingent and noncontingent representing the extreme ends of the continuum.

have also started to examine the interaction of self-esteem level and domain-specific contingencies which examine the extent to which individuals base their self-esteem on dimensions such as physical appearance or academic performance (Park & Crocker, 2005, 2008; Park, Crocker, & Kiefer, 2007; Park & Maner, 2009).

OVERVIEW AND PREDICTIONS

In order to develop a better understanding of the protective function served by high self-esteem, we examined whether contingent self-esteem would moderate the association between self-esteem level and anticipated reactions to negative events that may threaten one's feelings of self-worth. Our prediction was that individuals who reported possessing contingent high self-esteem would anticipate being more reactive to these sorts of potential self-esteem threats than those with noncontingent high self-esteem. The underlying rationale for our prediction was that individuals with noncontingent high self-esteem may believe they possess the psychological resources to acknowledge self-esteem threats without being overly responsive to these experiences. The secure and well-anchored feelings of self-worth that characterize these individuals may lead them to believe they are capable of confronting their weaknesses without being threatened by their own lack of perfection. In contrast, the fragile feelings of self-worth that characterize those with contingent high self-esteem may not be robust enough for these individuals to believe they could incorporate potentially threatening experiences without being greatly affected by these events. That is, we expected those with contingent high self-esteem to anticipate heightened reactivity to imagined self-esteem threats because these events may have the capacity to undermine their tenuous feelings of self-worth.

For those individuals with low levels of self-esteem, we predicted that they would anticipate being highly reactive to self-esteem threats because these individuals lack the coping resources that characterize those with high self-esteem. However, our predictions for the combination of low self-esteem and contingent self-esteem were somewhat uncertain because very little attention has been devoted to the consequences of contingent self-esteem for those with low levels of self-esteem. We believed the primary difference be-

tween those with contingent and noncontingent forms of low self-esteem would be that those with contingent low self-esteem would have the opportunity to feel better about themselves on those occasions when they meet the standards that they set for themselves. However, the present studies focused on negative events that have the potential to threaten self-esteem which may not offer individuals the opportunity to meet their standards, so the potential benefits of contingent low self-esteem may not be evident in our studies. As a result, we expected that both those with contingent and noncontingent forms of low self-esteem would anticipate relatively high levels of reactivity to the self-esteem threats.

STUDY 1: ANTICIPATED REACTIONS TO SOCIAL REJECTION

The purpose of Study 1 was to examine whether contingent self-esteem moderated the anticipated reactions of individuals with high self-esteem to an imagined scenario concerning the infidelity of their romantic partner. We expected individuals with contingent high self-esteem to anticipate greater reactivity to this manipulation than those with noncontingent high self-esteem because of the tenuous nature of their feelings of self-worth. We selected romantic infidelity because self-esteem has been found to be intimately connected with interpersonal relationships (Leary & Downs, 1995) and past research has shown that individuals are highly reactive to manipulations concerning infidelity (e.g., Besser & Priel, 2009; Besser & Zeigler-Hill, 2010).

METHOD

Participants and Procedure

Participants were 302 undergraduates (96 men and 206 women) at a university in the southern region of the United States. Participants were enrolled in psychology courses and participated in return for partial fulfillment of a research participation requirement. Participants were asked to provide written informed consent after the procedures had been fully explained. Although participants were reminded that they could discontinue their participation in the study at any time, none elected to do so. The mean age of the participants

was 20.37 years (*SD* = 3.13) and their racial/ethnic composition was 63% White, 29% Black, and 8% Other.

Participation involved two sessions separated by approximately one week. During the first session, participants completed measures of self-esteem level, contingent self-esteem, and other measures that are not relevant to the present study. Potential order effects were controlled by presenting the questionnaires in a randomized order. During the second session, participants were asked to

> "Please think of a serious committed romantic relationship that you currently have, have had in the past, or would like to have in the future. Now that you are thinking about this committed romantic relationship, imagine the following scenario happening . . . "

Participants were then randomly assigned to read a hypothetical scenario taken from Besser and Priel (2010) that was intended to invoke either high or low levels of threat in their romantic relationships. Both scenarios began by describing the following situation:

> "You get out of work early and decide to surprise your partner and buy her/him a present. As you walk up to the apartment, you hear some laughing coming from inside. As you get closer, you see that the door is cracked open."

The scenarios diverge at this point with the high threat scenario concluding with the following description:

> "You open the door to find your partner and another person having sexual relations in the living room. You hear your partner whispering to this person, 'I think I might be in love with you.'"

In contrast, the low threat scenario concludes with this description:

> "You open the door to find your partner setting the table while the TV in the living room shows a couple laughing while they have sexual relations.'"

After reading the appropriate hypothetical scenario, participants were asked to report how they believed they would feel if they actually experienced this scenario in terms of their state self-esteem, positive affect, negative affect, and anger. These outcomes were selected in order to capture a range of potential responses to the

scenarios with some involving feelings about the self (i.e., state self-esteem) and others dealing with either specific emotional reactions (i.e., anger) or broad emotional experiences (i.e., negative affect and positive affect).

Session 1 Measures

Self-Esteem Level. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item measure of global self-esteem (e.g., On the whole, I am satisfied with myself). Participants were instructed to complete the instrument according to how they typically or generally feel about themselves. Responses were made on scales ranging from 1 (strongly disagree) to 5 (strongly agree). This instrument is regarded as a well-validated and reliable measure of global self-regard (e.g., Blaskovich & Tomaka, 1991). The internal consistency of this measure for the present study was $\alpha = .88$.

Contingent Self-Esteem. The Contingent Self-Esteem Scale (Paradise & Kernis, 1999) is a 15-item measure of general self-esteem contingency (e.g., When my actions do not live up to my expectations, it makes me feel dissatisfied with myself). Participants were asked to respond to these items on scales ranging from 1 (not at all like me) to 5 (very much like me). The Contingent Self-Esteem Scale has been found to be a reliable and valid measure of contingent self-esteem (Kernis & Goldman, 2006). The internal consistency of this measure for the present study was $\alpha = .79$.

Session 2 Measures

State Self-Esteem. The State Self-Esteem Scale (Heatherton & Polivy, 1991) is a 20-item measure that assesses self-esteem for the following three domains: performance (e.g., I feel confident about my abilities), social (e.g., I feel concerned about the impression I am making [reverse-scored]), and appearance (e.g., I feel satisfied with the way my body looks right now). Participants were asked to complete this measure based on how they believed they would feel about themselves if they experienced the event described in the social rejection scenario. Responses were made on scales ranging from 1 (not at all) to 9 (extremely). Previous research has shown the State Self-Esteem Scale to be a valid and reliable measure of self-esteem (e.g., Heatherton & Polivy, 1991; Vohs & Heatherton, 2004). The

internal consistency of the composite measure of state self-esteem was .94.[2]

Affect. Affect was measured using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) which is a reliable and well-validated self-report measure of this construct. The PANAS consists of scales that measure positive (e.g., interested, enthusiastic, proud) and negative affect (e.g., distressed, scared, hostile). Participants were instructed to complete the items according to how they believed they would feel if they experienced the event described in the scenario. Responses for each of the 20 items were made on scales ranging from 1 (very slightly or not at all) to 9 (extremely). For the present sample, the internal consistencies of these scales were .87 and .92 for positive affect and negative affect, respectively.

Anger. Anger was measured using the state anger scale of the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). The STAXI-2 consists of 15 items that capture temporary feelings of anger (e.g., I feel annoyed). Participants were instructed to complete the items according to how they believed they would feel if they experienced the event described in the scenario. Responses for each of the items were made on scales ranging from 1 (not at all) to 9 (very much so). For the present sample, the internal consistency of the STAXI-2 was $\alpha = .98$.

RESULTS

The means, standard deviations, and intercorrelations for the measures in Study 1 are presented in Table 1. Analyses were conducted to determine whether self-esteem level and contingent self-esteem moderated the anticipated reactions of participants to the infidelity scenario (i.e., social rejection threat). The associations that the potential moderator (i.e., contingent self-esteem) had with the predictor variables (i.e., self-esteem level and condition) were relatively small. As a result, it is reasonable to examine whether contingent

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2. Preliminary analyses also examined each of the state self-esteem subscales (i.e., performance self-esteem, social self-esteem, and appearance self-esteem). The results of those analyses were similar to what emerged for the total composite score. As a result, we trimmed the analyses concerning the subscales from the manuscript in the interest of parsimony.

self-esteem moderates the associations that the predictor variables have with the anticipated reactions of participants to the scenarios (Jaccard, Turrisi, & Wan, 1990). This was accomplished by conducting a series of hierarchical multiple regression analyses in which each indicator of reactivity (i.e., state self-esteem, positive affect, negative affect, and anger) was regressed onto threat condition (0 = low threat, 1 = high threat), self-esteem level, contingent self-esteem, and sex (0 = female, 1 = male). We included sex in these analyses because it has been found to moderate the association that fragile self-esteem has with outcomes such as interpersonal style (Zeigler-Hill et al., in press) and aggression (Webster, Kirkpatrick, Nezlek, Smith, & Paddock, 2007). Preliminary analyses found that sex did not moderate any of the results presented in later sections so the interaction terms involving sex were trimmed from the final models in the interest of parsimony.[3] The continuous predictor variables were standardized for the purpose of testing interactions (Aiken & West, 1991). For these analyses, the main effect terms for threat condition, self-esteem level, contingent self-esteem, and sex were entered on Step 1. The two-way interactions of threat condition, self-esteem level, and contingent self-esteem were entered on Step 2 and their three-way interaction was entered on Step 3. The results of these analyses are presented in Table 2. These regression analyses were followed by the simple slopes tests recommended by Aiken and West (1991) to describe the interaction of continuous variables.

State Self-Esteem. The main effect emerged for condition ($\beta = -.37$, $t = -7.04$, $p < .001$, $d = -.83$) such that those who experienced social rejection threat anticipated lower state self-esteem than those in the low threat condition. Main effects also emerged for self-esteem level ($\beta = .11$, $t = 2.13$, $p < .05$, $d = .25$) and contingent self-esteem ($\beta = -.15$, $t = -2.77$, $p < .01$, $d = -.32$) such that those with higher levels of self-esteem and lower levels of contingent self-esteem thought they would experience higher state self-esteem. The main effects of condition and contingent self-esteem were qualified by their interaction ($\beta = -.20$, $t = -2.29$, $p < .05$, $d = -.27$). The predicted values for this

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3. We also included a term in the preliminary analyses concerning relationship status (0 = currently single, 1 = in a committed relationship) in order to distinguish between those participants who were involved in a romantic relationship and those who were not. However, no main effects or interactions involving relationship status emerged from our analyses so the term was trimmed from the final analyses.

interaction are presented in Panel A of Figure 1. Simple slopes tests found that the slope of the line representing the association between social rejection threat and state self-esteem was negative for those with contingent self-esteem (β = -.50, t = -6.40, p < .001, d = -.75) as well as those with noncontingent self-esteem (β = -.24, t = -3.24, p < .001, d = -.38). However, it is important to note that the association between social rejection threat and anticipated state self-esteem was significantly stronger for those with contingent self-esteem such that individuals with contingent self-esteem anticipated significantly lower levels of state self-esteem than those with noncontingent self-esteem in the high threat condition (β = -.26, t = -3.41, p < .001, d = -.40). Taken together, these results show that the lowest levels of state self-esteem were anticipated by individuals with contingent self-esteem who imagined experiencing a social rejection threat. In contrast, the anticipated state self-esteem levels of those with high levels of contingent self-esteem did not differ from those with low levels of contingent self-esteem in the absence of threat (β = .02, t < 1, ns).

Positive Affect. The results of the analysis concerning positive affect revealed a main effect for threat condition (β = -.33, t = -6.17, p < .001, d = -.72) such that those participants in the high threat condition anticipated less positive affect than those in the low threat condition. In addition, main effects emerged for self-esteem level (β = -.14, t = -2.57, p < .05, d = -.30) and contingent self-esteem (β = -.16, t = -2.77, p < .01, d = -.32). No other main effects or interactions emerged from this analysis.

Negative Affect. Main effects emerged for threat condition (β = .51, t = 10.51, p < .001, d = 1.23) and contingent self-esteem (β = .21, t = 4.04, p < .001, d = .47) from the analysis concerning anticipated negative affect but these main effects were qualified by the expected three-way interaction of threat condition, self-esteem level, and contingent self-esteem (β = .24, t = 2.69, p < .01, d = .31). The predicted values for this interaction are presented in Panel B of Figure 1. As suggested by Cohen, Cohen, West, and Aiken (2003), this interaction was probed by first examining whether the two-way interaction of condition and contingent self-esteem was significant for those with low and high levels of self-esteem. These analyses found that this two-way interaction emerged for those with high self-esteem (β = .79, t = 3.79, p < .001, d = .45) but not for those with low self-esteem (β = .18, t = 1.55, ns). Simple slopes tests were then conducted which

TABLE 1. Intercorrelations and Descriptive Statistics for Measures of Self-Esteem Level, Contingent Self-Esteem, and Anticipated Reactions to Self-Esteem Threat

	1	2	3	4	5	6
Study 1: Anticipated Reactions to Social Rejection						
1. Self-Esteem Level	—	-.23**	.18*	-.22**	-.10	-.03
2. Contingent Self-Esteem	-.17*	—	-.31***	-.15	.48***	.05
3. State Self-Esteem	.13	-.07	—	.31***	-.65***	-.24**
4. Positive Affect	.03	-.16	.28***	—	-.19*	-.35***
5. Negative Affect	.02	-.10	-.86***	-.09	—	.53***
6. Anger	-.03	-.16	-.75***	-.11	.82***	—
$M_{\text{Low Threat}}$	4.04	3.35	6.21	4.70	3.30	2.86
$SD_{\text{Low Threat}}$	0.67	0.54	1.42	1.60	1.73	1.81
$M_{\text{High Threat}}$	4.05	3.52	4.84	3.52	5.55	7.14
$SD_{\text{High Threat}}$	0.78	0.61	1.77	1.51	1.82	2.14
Study 2: Anticipated Reactions to Achievement Failure						
1. Self-Esteem Level	—	-.23***	.33***	-.16*	-.34***	-.35***
2. Contingent Self-Esteem	-.38***	—	-.62***	-.17*	.48***	.41***
3. State Self-Esteem	.23**	.07	—	.19**	-.78***	-.59***
4. Positive Affect	.00	.16*	.29***	—	.14*	.17*
5. Negative Affect	-.11	.01	-.69***	.09	—	.79***
6. Anger	-.06	-.18*	-.52***	-.02	.79***	—
$M_{\text{Low Threat}}$	4.10	3.39	5.69	5.62	3.81	2.69
$SD_{\text{Low Threat}}$	0.68	0.48	1.35	1.74	1.84	1.88
$M_{\text{High Threat}}$	3.94	3.34	5.19	4.26	4.44	4.00
$SD_{\text{High Threat}}$	0.76	0.44	1.50	1.56	1.65	2.02

Note. Correlations for those in the low threat conditions are presented below the diagonals while correlations for the high threat conditions are presented above the diagonals. $*p < .05$; $**p < .01$; $***p < .001$.

TABLE 2. Regressions of the State Self-Esteem, Affect, and Anger on Self-Esteem Threat Condition, Self-Esteem Level, Contingent Self-Esteem, and Sex

Study 1: Anticipated Reactions to Social Rejection

	State Self-Esteem			Positive Affect			Negative Affect			Anger		
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β
Step 1	.22***	.22***		.18***	.18***		.33***	.33***		.57***	.57***	
Condition			-.37***			-.33***			.51***			.74***
Self-Esteem Level (SEL)			.11*			-.14*			.00			-.03
Contingent Self-Esteem (CSE)			-.15**			-.16**			.21***			.00
Sex			.10			.07			.03			.11**
Step 2	.24***	.02*		.20***	.02*		.39***	.06***		.57***	.00	
Condition x SEL			-.03			-.04			.00			.02
Condition x CSE			-.20*			-.01			.38***			.08
SEL x CSE			.04			.09			.00			-.03
Step 3	.25***	.01		.20***	.00		.41***	.02*		.58***	.01	
Condition x SEL x CSE			-.07			.06			.24**			.14

Study 2: Anticipated Reactions to Achievement Failure

	State Self-Esteem			Positive Affect			Negative Affect			Anger		
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β
Step 1	.19***	.19***		.16***	.16***		.11***	.11***		.15***	.15***	
Condition			-.17***			-.39***			.17***			.30***
Self-Esteem Level (SEL)			.21***			-.10*			-.18***			-.20***
Contingent Self-Esteem (CSE)			-.28***			-.05			.17**			.06
Sex			.07			-.09			-.05			-.02
Step 2	.29***	.10***		.20***	.04***		.20***	.09***		.27***	.12***	
Condition x SEL			-.03			-.03			-.03			-.04
Condition x CSE			-.45***			-.20***			.23***			.30***
SEL x CSE			-.06			.08			.08			.07
Step 3	.33***	.04**		.21***	.01		.22***	.02*		.27***	.00	
Condition x SEL x CSE			-.14*			.03			.12*			.06

Note. ΔR^2 = increase in R^2. *$p < .05$; **$p < .01$; ***$p < .001$.
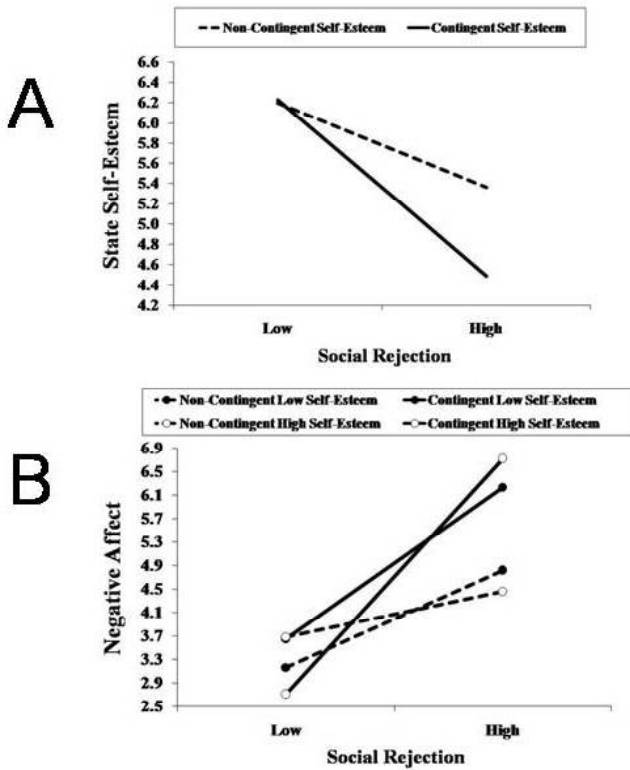
FIGURE 1. Study 1: Predicted values for state self-esteem (Panel A) and negative affect (Panel B) illustrating the interaction of threat condition, self-esteem level, and contingent self-esteem at values that are one standard deviation above and below their respective means.

found that the slope of the line representing the association between threat condition and anticipated negative affect was significant for individuals with contingent high self-esteem (β = .87, t = 6.19, p < .001, d = .73) but not for other individuals (β < .26, ts < 1.05, ns). These results show that social rejection threat had the greatest impact on the anticipated negative affect of those with contingent high self-esteem.

Anger. The main effect of threat condition (β = .74, t = 18.71, p < .001, d = 2.18) emerged from the analysis concerning anger such that those in the high threat condition anticipated higher levels of anger than those in the low threat condition. The main effect of gender

also emerged (β = .11, t = 2.64, p < .01, d = .31) such that men reported anticipating higher levels of anger than women. The expected three-way interaction of condition, self-esteem level, and contingent self-esteem approached—but did not reach—conventional levels of significance (β = .14, t = 1.82, p < .07, d = .21). The predicted values for this analysis revealed a pattern that was similar to the results for negative affect such that the social rejection threat had the greatest impact on the anticipated anger of those with contingent high self-esteem.

DISCUSSION

The results of Study 1 provided partial support for our predictions. That is, the predicted three-way interaction of condition, self-esteem level, and contingent self-esteem emerged for negative affect such that those with contingent high self-esteem anticipated being more responsive to the social rejection threat than those with noncontingent high self-esteem. Although the expected pattern emerged for negative affect, it failed to emerge for the other outcomes examined in this study. Despite the fact that the expected three-way interaction failed to emerge for state self-esteem, further exploration of these results found that the interaction of condition and contingent self-esteem was only significant for those with high levels of self-esteem. Thus, the expected pattern may have simply been too weak to rise to conventional levels of significance. This is not terribly surprising given the difficulty that has been noted with detecting complex interactions involving continuous variables (McClelland & Judd, 1993).

It is possible that our difficulty in capturing the expected three-way interaction for some of the outcomes we examined was due to the social rejection manipulation being so powerful. In other words, asking participants to imagine themselves walking in on their romantic partners having sex with someone else—and hearing them whisper that they might be in love with this other person—may have been so unpleasant and aversive that it may have partially masked the differences between contingent and noncontingent forms of high self-esteem. Due to this concern, we used a somewhat weaker manipulation in Study 2.

STUDY 2: ANTICIPATED REACTIONS
TO ACHIEVEMENT FAILURE

Our goal for Study 2 was to replicate the findings of Study 1 and to extend these findings to the domain of achievement. More specifically, we examined whether individuals with contingent high self-esteem anticipated stronger reactions to achievement failure than those with noncontingent high self-esteem. In addition to shifting the domain from social rejection to achievement failure, we also wanted to utilize a manipulation that was less powerful than the infidelity manipulation employed in Study 1 in order to make it less likely that the aversive nature of the manipulation would mask any differences between those with contingent and noncontingent forms of high self-esteem. As a result, we decided to use the achievement failure manipulation employed by Besser and Priel (2010) because they found that it elicited weaker reactions than the infidelity manipulation we used in Study 1. It is important to note that other studies using similar scenarios concerning interpersonal rejection and achievement failure have also found that interpersonal rejection tends to elicit stronger reactions than achievement failure (e.g., Besser & Zeigler-Hill, 2010).[4]

METHOD

Participants and Procedure

Participants were 392 undergraduates (132 men and 260 women). The mean age of the participants was 20.98 years (SD = 3.84) and their racial/ethnic composition was 61% White, 29% Black, and 10% Other. The procedure for Study 2 was very similar to that of Study 1 (e.g., two sessions separated by approximately one week). The fo-

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4. As expected, comparisons of the social rejection and achievement failure conditions across our two studies found that participants in the social rejection condition reported lower state self-esteem (t = 2.09, p < .05, d = .21), less positive affect (t = 4.57, p < .001, d = .48), more negative affect (t = 6.11, p < .001, d = .64), and more anger (t = 14.43, p < .001, d = 1.51) than those in the achievement failure condition.

cus of the second session was on anticipated reactions to a threatening achievement event such that participants were asked to

> "Please think of a serious long-term job that you currently have, have had in the past, or would like to have in the future. Now that you are thinking about this job, imagine the following scenario happening . . . ."

Participants were then randomly assigned to read a hypothetical scenario taken from Besser and Priel (2010) that was intended to invoke either high or low levels of threat concerning achievement failure. Both scenarios began by describing the following situation:

> "Recently an opportunity for promotion is opened for one exceptional employee at your place of work. You are competing for this opportunity and you really want this promotion. You have been invited to a meeting with the executive manager. You approach the executive manager's office earlier than expected. As you walk up to the office, you hear some laughing coming from inside. It seems they are celebrating—they probably already know who won the promotion. As you get closer, you see that the door is cracked open."

The scenarios diverge at this point with the high threat scenario concluding with the following description:

> "You open the door, to find the executive manager making a toast with one of your fellow employees to celebrate his promotion. You hear the executive manager saying to this other employee, 'Of all the candidates for this promotion, you were clearly the best.'"

In contrast, the low threat scenario concludes with this description:

> "You open the door to find the executive manager making a toast with his secretary who is about to retire. You hear the executive manager saying to her, 'Thanks for your highly professional work over the years.'"

After reading the appropriate hypothetical scenario, participants were asked to report how they believed they would feel if they actually experienced this scenario.

Session 1 Measures

The same measures from Study 1 were used to assess self-esteem level (α = .90), and contingent self-esteem (α = .76).

Session 2 Measures

The same measures from Study 1 were used to assess anticipated reactions to the scenarios in terms of state self-esteem (α = .86), positive affect (α = .94), negative affect (α = .90), and anger (α = .97).

RESULTS

The means, standard deviations, and intercorrelations for the measures in Study 2 are presented in Table 1. Hierarchical multiple regression analyses similar to those used in Study 1 were used to examine whether contingent self-esteem moderated the association between self-esteem level and anticipated reactions of individuals to the achievement failure manipulation in Study 2. The correlations that contingent self-esteem had with self-esteem level and condition were relatively modest which allows us to examine contingent self-esteem as a potential moderator. The results of these analyses are presented in Table 2.

State Self-Esteem. The main effect emerged for condition (β = -.17, t = -3.59, p < .001, d = -.37) such that those who experienced the achievement failure threat anticipated lower state self-esteem than those in the low threat condition. Main effects also emerged for self-esteem level (β = .21, t = 4.33, p < .001, d = .44), and contingent self-esteem (β = -.28, t = -5.52, p < .001, d = -.56) such that higher levels of anticipated state self-esteem were reported by individuals with higher levels of self-esteem and individuals with lower levels of contingent self-esteem. The main effects of condition, self-esteem level, and contingent self-esteem were qualified by the expected three-way interaction (β = -.14, t = -2.14, p < .05, d = -.22). The predicted values for this interaction are presented in Panel A of Figure 2. This three-way interaction was probed by first examining whether the two-way interaction of condition and contingent self-esteem would emerge for those with low and high levels of self-esteem. These analyses found that this two-way interaction emerged for
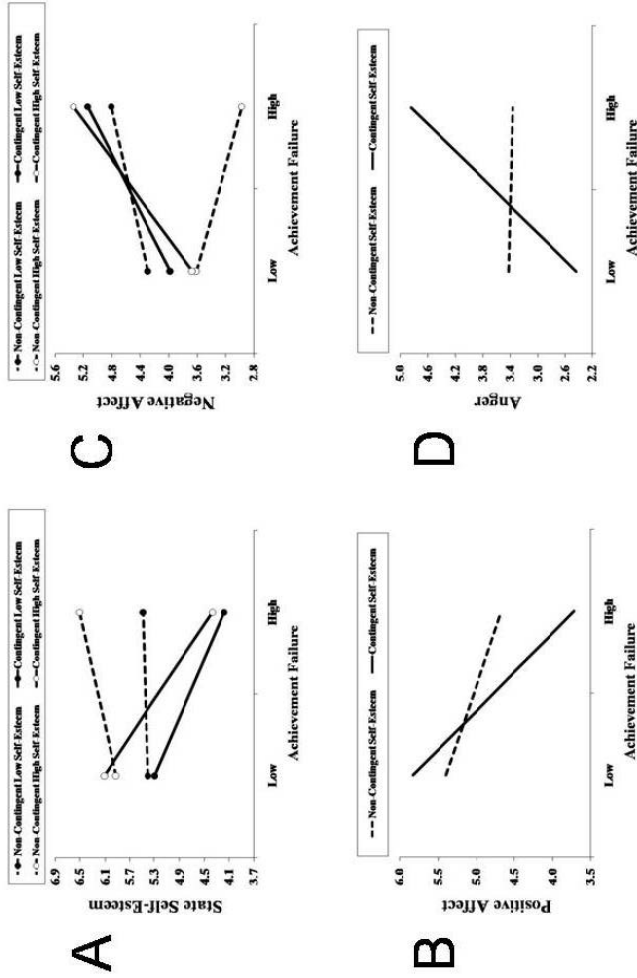
FIGURE 2. Study 2: Predicted values for state self-esteem (Panel A), positive affect (Panel B), negative affect (Panel C), and anger (Panel D) illustrating the interaction of threat condition, self-esteem level, and contingent self-esteem at values that are one standard deviation above and below their respective means.

those with high self-esteem (β = -.56, t = -6.85, p < .001, d = -.70) as well as for those with low self-esteem (β = -.29, t = -2.88, p < .01, d = -.29). Simple slopes tests were then conducted which found that the slope of the line representing the association between threat condition and state self-esteem was negative for individuals with contingent high self-esteem (β = -.60, t = -6.19, p < .001, d = -.63) and contingent low self-esteem (β = -.38, t = -4.91, p < .001, d = -.50). In contrast, the association between threat condition and state self-esteem was actually positive for those with noncontingent high self-esteem (β = .20, t = 2.72, p < .01, d = .28). The association between threat and state self-esteem was not significant for those with noncontingent low self-esteem (β = .03, t < 1, ns). Taken together, these results show that individuals with contingent high self-esteem anticipated the greatest drop in their state self-esteem following achievement failure. It is important to note that individuals with noncontingent high self-esteem actually anticipated a slight increase in their feelings of self-worth following achievement failure.

Positive Affect. Main effects emerged for threat condition (β = -.39, t = -8.32, p < .001, d = .84) and self-esteem level (β = -.10, t = -2.02, p < .05, d = .20). The main effect of threat condition was moderated by its interaction with contingent self-esteem (β = -.20, t = -3.98, p < .001, d = .40). The predicted values for the interaction of threat condition and contingent self-esteem are presented in Panel B of Figure 2. Simple slopes tests found that the slopes of the lines representing the associations between achievement failure and anticipated positive affect were negative for those with contingent self-esteem (β = -.59, t = -8.86, p < .001, d = .90) as well as those with noncontingent self-esteem (β = -.20, t = -2.95, p < .01, d = .30) but the association was stronger for those with contingent self-esteem. Taken together, these results show that achievement failure was associated with anticipated positive affect for all participants but the association was stronger for those with contingent self-esteem.

Negative Affect. Main effects for threat condition (β = .17, t = 3.46, p < .001, d = .35), self-esteem level (β = -.18, t = -3.50, p < .001, d = .35), and contingent self-esteem (β = .17, t = 3.17, p < .01, d = .32) emerged from the analysis concerning anticipated negative affect but these main effects were qualified by their three-way interaction (β = .12, t = 2.41, p < .05, d = .24). The predicted values for this interaction are presented in Panel C of Figure 2. This three-way interaction was probed by first examining whether the two-way interaction of con-

dition and contingent self-esteem would emerge for those with low and high levels of self-esteem. These analyses found that this two-way interaction emerged for those with high self-esteem (β = .50, t = 3.48, p < .001, d = .35) but not for those with low self-esteem (β = -.20, t = -1.10, ns). Simple slopes tests were then conducted which found that the slope of the line representing the association between achievement failure condition and anticipated negative affect was significant for individuals with contingent high self-esteem (β = .37, t = 4.33, p < .001, d = .44) but not for other individuals (βs < .17, ts < 1.01, ns). Taken together, these results show that achievement failure had the greatest impact on the levels of negative affect that were expected by those with contingent high self-esteem.

Anger. Main effects emerged for threat condition (β = .30, t = 6.32, p < .001, d = .64) and self-esteem level (β = -.20, t = -3.91, p < .001, d = .40) from the analysis concerning anticipated anger. The main effect of threat condition was moderated by its interaction with contingent self-esteem (β = .30, t = 6.37, p < .001, d = .65). The predicted values for this interaction are presented in Panel D of Figure 2. Simple slopes tests found that the slope of the line representing the association between achievement failure and anticipated anger was positive for those with contingent self-esteem (β = .58, t = 9.13, p < .001, d = .92) but not for those with noncontingent self-esteem (β = -.01, t < 1, ns). These results show that achievement failure is associated with the expectation of heightened anger for those with contingent self-esteem but not for those with noncontingent self-esteem.

DISCUSSION

The results of Study 2 provided partial support for our predictions. The expected three-way interaction emerged for state self-esteem and negative affect which showed that individuals with contingent high self-esteem thought they would be more reactive to achievement failure than those with noncontingent high self-esteem. In addition, individuals with contingent self-esteem anticipated stronger reactions to this threat manipulation than those with noncontingent self-esteem for each of the remaining outcomes. Importantly, further probing of the results found that the interaction between condition and contingent self-esteem was only significant for those with high self-esteem for all of the outcomes even if the three-way interaction

did not reach conventional levels of significance. As with Study 1, this pattern provides consistent support for our prediction even if the higher-order interactions were too weak to be detected in some cases.

GENERAL DISCUSSION

The purpose of the present studies was to examine whether contingent self-esteem moderated the association between self-esteem level and anticipated reactions to events with the potential to threaten how individuals feel about themselves. Across two studies, we found support for our prediction that individuals with contingent high self-esteem would anticipate having stronger reactions to social rejection and achievement failure than those with noncontingent high self-esteem. The expected pattern emerged most clearly for anticipated state self-esteem and negative affect which were closely associated with each other. That is, individuals who thought they would experience high levels of negative affect if they experienced the situations described in the scenarios also tended to predict that they would experience lower levels of state self-esteem in those situations. This suggests that individuals believe that the state self-esteem they will experience is more closely aligned with their anticipated negative affect than the other potential reactions that were examined in the present studies (i.e., positive affect and anger). The pattern of these results suggests at least some degree of specificity in the protective properties offered by noncontingent high self-esteem.

It is important to note that this pattern was clearer for the achievement failure manipulation than it was for the social rejection manipulation. The reason for the difference in how individuals responded to these manipulations may be that the social rejection manipulation was so powerful that it threatened the self-esteem of those with both contingent and noncontingent forms of high self-esteem. The aversive nature of the social rejection manipulation may also explain why individuals with noncontingent self-esteem anticipated more positive affect and less anger than those with contingent self-esteem following the achievement failure manipulation even though no differences emerged between these individuals following the social rejection manipulation.

These results may have implications for the choices that are made by individuals with contingent and noncontingent forms of high self-esteem. For example, individuals with contingent high self-esteem may be more conservative than those with noncontingent high self-esteem with regard to the choices they make during the course of their lives due to their belief that they will experience strong emotional reactions to aversive events. As a result, individuals with contingent high self-esteem may be less willing to take risks such as asking for a promotion at work because they may be concerned about how they would react if their request was denied. In contrast, individuals with noncontingent high self-esteem may be more willing to pursue their goals and take risks because of their belief that they will be able to cope with failure or rejection. These results complement those of Park (2010) concerning the connection that self-esteem has with approach and avoidance motivation.

Although the present study focused on the reactions that individuals believed they would experience when confronted with self-esteem threats, these results suggest that it may be important to account for contingent self-esteem when considering the reactions of individuals to actual negative events that they experience during the course of their lives. This argument is similar to the one presented by Roberts and Monroe (1994) concerning self-esteem instability (i.e., fluctuations in moment-to-moment feelings of self-worth). The pattern of results observed across the present studies suggests that the protective properties of high self-esteem may be limited to those individuals who feel secure about their feelings of self-worth. These results may shed additional light on past inconsistencies which found that high levels of self-esteem protected individuals from negative experiences in some studies but failed to do so in other studies. More specifically, individuals with secure high self-esteem may experience the protective properties of high self-esteem whereas those with fragile high self-esteem may not have the benefit of that protection.

Contingent self-esteem requires at least some level of awareness concerning the fragile nature of their feelings of self-worth. This is necessary because contingent self-esteem is assessed through direct self-reports which require individuals to have adequate insight concerning their feelings of self-worth to recognize that they are contingent. This differentiates contingent self-esteem from the other markers of fragile high self-esteem (i.e., low implicit self-esteem and unstable self-esteem) which do not necessarily involve this

sort of insight. For example, individuals with unstable high self-esteem are not necessarily aware that their self-esteem is changing so frequently or able to recognize the sorts of events that lead to these fluctuations (e.g., Kernis et al., 2008). The insight required for contingent self-esteem may be important given the manipulations used in the present studies required participants to predict how they would respond if they experienced certain events. It is possible that individuals who are identified as possessing fragile high self-esteem using the other markers may be less aware of their vulnerability to self-esteem threats than those with contingent self-esteem. It would be informative for future research to replicate these studies using the other markers of fragile high self-esteem to gain a better understanding of the similarities and differences between these markers. Also, future studies may want to extend these results to domain-specific contingencies such as those developed by Crocker and her colleagues (e.g., Park & Crocker, 2005).

The present studies had a number of strengths which include their use of large samples, manipulations of self-esteem threat in two domains, and multiple outcome measures to assess different aspects of anticipated reactivity. Despite the strengths of these studies, it is also important to acknowledge some of their limitations. First, we relied on individuals imagining negative experiences as well as predicting their reactions to these sorts of events. As a result, we know how individuals say they would react to these sorts of events but this may not necessarily be an accurate reflection of how they would actually respond. Future researchers may want to consider using manipulations that avoid this problem by exposing individuals to actual self-esteem threats in the laboratory. For example, researchers have used laboratory manipulations concerning mood manipulations (Kernis, Greenier, Herlocker, Whisenhunt, & Abend, 1997) and social approval/disapproval (Leary et al., 2003) as well as naturalistic experiences such as earning good/bad grades (Crocker, Karpinski, Quinn, & Chase, 2003) or receiving acceptance/rejection letters from graduate schools (Crocker, Sommers, & Luhtanen, 2002). Second, we were unable to determine whether contingent high self-esteem actually causes heightened reactivity due to the correlational nature of our data. The process model that guided our research was that individuals with contingent high self-esteem would lack the sort of protection that noncontingent high self-esteem provides but this cannot be established using the present data. For example, it is unclear whether contingent high self-

esteem causes individuals to anticipate being highly reactive to self-esteem threats or if the direction of causation was reversed such that the tendency to anticipate greater reactivity may contribute to the development of contingent high self-esteem. Further research is needed to gain a clearer understanding of the causal link between contingent self-esteem and reactivity. Third, the present studies relied exclusively on self-report measures which make it possible that our results may be influenced by socially desirable response distortions. For example, the same individuals who denied possessing contingent self-esteem may have also claimed that they would not be upset if they experienced these sorts of events. Fourth, the generalizability of the present findings may be limited due to our reliance on undergraduate participants. Undergraduates have most likely had only limited experience with romantic relationships and occupational achievement, so their beliefs about how they would respond to these sorts of self-esteem threats may be somewhat different from older individuals who have more experience in these areas. Fifth, we relied on a single threat scenario for each study (i.e., infidelity and failure to get a promotion). As a result, we only have a narrow sampling of stimuli which limits our ability to generalize beyond these particular scenarios to the broader issues of social rejection and achievement failure (e.g., Wells & Windschitl, 1999). Sixth, we did not collect pre-manipulation measures of affect or anger. This is a limitation because it prevents us from assessing the extent to which participants would have reported changes in their affect and anger following the manipulation.

CONCLUSION

The findings of the present studies suggest that individuals with contingent high self-esteem anticipate being more reactive to threat than those with noncontingent high self-esteem. That is, contingent high self-esteem was associated with predictions concerning stronger emotional reactions following self-esteem threats. These findings suggest the intriguing possibility that the protective properties of high self-esteem may be limited to those with the secure form of high self-esteem. These results extend our understanding of the link between fragile high self-esteem and anticipated reactions to negative events in diverse domains.

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