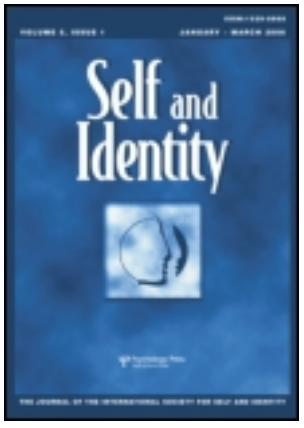

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Self-esteem Instability and Psychological Adjustment

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Self-esteem Instability and Psychological Adjustment

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The psychological adjustment of individuals with stable and unstable forms of self-esteem was examined across three studies using undergraduate participants. Study 1 (N = 122) included indicators of global distress and aggression; Study 2 (N = 199) focused on depression, hopelessness, anxiety, and rejection sensitivity; and Study 3 (N = 183) examined global distress, affect, and psychological well-being. Across each study, unstable self-esteem was found to moderate the association between self-esteem level and psychological adjustment. The pattern of these findings suggests that individuals with unstable low self-esteem are especially likely to experience dejection, whereas those with unstable high self-esteem are likely to experience agitation.

Keywords: Adjustment; Depression; Fragile; Self-esteem; Unstable.

The association between self-esteem and important life outcomes has been the focus of considerable debate in recent years (e.g., Baumeister, Campbell, Krueger, & Vohs, 2003; Swann, Chang-Schneider, & Larsen McClarty, 2007; Trzesniewski et al., 2006). A particular area of importance has been the link between self-esteem and psychological adjustment. The relationship between self-esteem and psychopathology is evident in the DSM-IV-TR (American Psychiatric Association, 2000), which contains numerous references to various "self" terms including self-esteem (O'Brien, Bartoletti, & Leitzel, 2006). For example, low self-esteem is included as a diagnostic criterion or an associated feature for an array of disorders including most mood disorders and many anxiety disorders. The inclusion of self-esteem in these diagnostic criteria is consistent with studies showing that low self-esteem is associated with an array of clinically relevant outcomes including depression, anxiety, eating disorders, and alcohol abuse (see Zeigler-Hill, in press, for a review). It is important to note that the link between self-esteem and adjustment is not limited to low self-esteem because there are also psychological disorders in the DSM-IV-TR that refer to elevated or fragile forms of self-esteem such as narcissistic personality disorder and borderline personality disorder.

Although previous research has clearly documented an association between self-esteem level and psychopathology, the underlying process that links self-esteem and adjustment remains unclear. One of the most prominent explanations for this connection is the *vulnerability model*, which proposes that low self-esteem is a risk factor

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for the development of psychopathology (e.g., Beck, 1967). The clearest illustration of the vulnerability model can be seen for depression. It is believed that low self-esteem may play a causal role in the development of depression through both intrapsychic processes (e.g., ruminative tendencies) and interpersonal strategies (e.g., excessive reassurance seeking; Orth, Robins, & Roberts, 2008). An important extension of the vulnerability model is that low self-esteem may increase the probability of poor psychological adjustment in the wake of stressful experiences because individuals with low self-esteem do not have positive feelings of self-worth to provide a buffer that protects them from the deleterious consequences of negative experiences such as failure or rejection. In essence, this model suggests that high levels of self-esteem provide a resource that individuals can draw upon when they are confronted with negative experiences whereas those with low levels of self-esteem lack this resource and will have stronger reactions to negative experiences. Basically, this stress-buffering hypothesis proposes that self-esteem and stress will interact to produce psychopathology such that high self-esteem buffers individuals from the deleterious consequences of stress. Although the simple version of this vulnerability model suggests that high self-esteem will often serve a protective function that minimizes poor adjustment in individuals, the assumption that high self-esteem is a homogeneous construct that will provide protection for all individuals has been challenged by those who suggest that there are multiple forms of high self-esteem. Thus, it is possible that only certain forms of high self-esteem may be associated with psychological adjustment.

Secure vs. Fragile Forms of Self-esteem

We believe that some of the confusion concerning the link between self-esteem and adjustment may be due, at least in part, to researchers focusing on self-esteem level without paying adequate attention to other aspects of self-esteem. As a result, the present studies examined self-esteem level in conjunction with *self-esteem instability*, which refers to fluctuations in moment-to-moment feelings of self-worth over time (see Kernis, 2005, for a review). Self-esteem instability is typically operationalized as the magnitude of change in state self-esteem across repeated measurements. The inclusion of self-esteem instability allows us to distinguish between the various forms of self-esteem that have been identified in previous research (Kernis, 2003). For example, it appears that high self-esteem is a heterogeneous construct consisting of both a *secure* form and a *fragile* form (see Kernis, 2003, for a review). Secure high self-esteem reflects positive attitudes toward the self that are realistic, well-anchored, and resistant to threat. Individuals with secure high self-esteem are believed to have a solid foundation for their feelings of self-worth that does not require constant validation or feelings of superiority with regard to others. In essence, individuals with secure high self-esteem are thought to be better able to accept themselves as they actually are rather than feeling the need to create positive illusions about themselves. 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. Individuals with fragile high self-esteem are believed to be preoccupied with protecting and enhancing their vulnerable feelings of self-worth. We believe that secure self-esteem may protect individuals from various forms of psychopathology whereas fragile self-esteem may fail to serve this protective function and may actually exacerbate certain types of maladjustment.

Unstable high self-esteem is considered to be a form of fragile high self-esteem because frequent changes in moment-to-moment feelings of self-worth suggest that the

positive views expressed by these individuals are uncertain (Kernis, 2005). Much of the previous research concerning self-esteem instability has examined whether it is associated with defensiveness (Kernis, Lakey, & Heppner, 2008; Myers & Zeigler-Hill, 2008; Zeigler-Hill, Chadha, & Osterman, 2008), increased sensitivity to social events (Greenier et al., 1999), or an impoverished self-concept structure (Kernis, Paradise, Whitaker, Wheatman, & Goldman, 2000; Zeigler-Hill & Showers, 2007). These studies suggest that the self-regard of those with unstable high self-esteem appears to be constantly at risk, which leads to heightened reactivity and defensiveness. In contrast, those individuals with stable high self-esteem experience less ego-involvement in day-to-day activities and, as a consequence, their reactions to evaluative events or feedback tends to be less extreme (Kernis et al., 2000). The fragile feelings of self-worth that characterize individuals with unstable high self-esteem have also been shown to result in a variety of self-aggrandizing and defensive behaviors such as boasting about a recent success to their friends (Kernis, Greenier, Herlocker, Whisenhunt, & Abend, 1997).

Self-esteem instability has been found—either by itself or in conjunction with self-esteem level or stress—to predict various indicators of poor psychological adjustment including aggression (Kernis, Grannemann, & Barclay, 1989; Webster, Kirkpatrick, Nezlek, Smith, & Paddock, 2007), depression (Roberts, 2006), violence (Boden, Fergusson, & Horwood, 2007), bipolar disorder (Knowles et al., 2007), attachment anxiety (Foster, Kernis, & Goldman, 2007), paranoia (Thewissen et al., 2007), and borderline personality features (Zeigler-Hill & Abraham, 2006). The typical reason that is given for the association between unstable high self-esteem and poor adjustment is that the unstable form of high self-esteem may lack the protective factors that buffer individuals from the vicissitudes of life. However, it is important to note that considerable inconsistencies have emerged across studies. For example, some studies have shown a link between self-esteem instability and depression, whereas others have not (see Roberts, 2006, for a review).

Overview and Predictions

The purpose of the present studies was to examine whether the association that self-esteem level had with various indicators of psychological adjustment would be moderated by self-esteem instability. This was accomplished by conducting three studies with each study focusing on a set of instruments designed to capture certain aspects of psychological adjustment. At the most basic level, we expected our results to replicate previous results showing that individuals with low levels of self-esteem tend to report poorer levels of adjustment (e.g., higher levels of depressive symptoms) than those with high levels of self-esteem. We also expected that self-esteem instability would moderate the association between self-esteem level and psychological adjustment. Our general expectation was that individuals with stable high self-esteem would report higher levels of psychological adjustment than those with unstable high self-esteem or either form of low self-esteem. The basic rationale for this prediction was that unstable high self-esteem may fail to provide the sort of protection offered by stable high self-esteem because those with unstable high self-esteem appear to be uncertain about the positivity of their self-views. However, we believed that the pattern of moderation would vary across the indicators of psychological maladjustment. This prediction was based on previous research showing that self-esteem instability has been associated with more depressive symptoms for those with low levels of self-esteem and higher levels of aggression for those with high levels of self-esteem. To gain a better understanding of the link

between self-esteem instability and psychological adjustment, we used a variety of measures that captured various facets of adjustment that could be broadly categorized as either dejection (e.g., depression, hopelessness) or agitation (e.g., anxiety, aggression).

Study 1

The purpose of Study 1 was to examine whether self-esteem instability moderated the association that level of self-esteem had with global distress and aggression. We selected global distress as an indicator of psychological adjustment for Study 1 in order to get a broad idea of the association between self-esteem instability and adjustment. Aggression was included in this study because we wanted to extend previous research that had focused on the attitudinal component of aggression (i.e., anger and hostility) as well as its behavioral component (i.e., verbal and physical aggression; Kernis et al., 1989; Webster et al., 2007). Our approach in Study 1 was to examine the various features of aggression separately rather than combining them into broader composites that may obscure important differences between these features.

Method

Participants and Procedure

Participants were 165 undergraduates at a university in the southern region of the United States who were enrolled in psychology courses and participated in return for partial fulfillment of a research participation requirement. Participants completed measures of self-esteem level, global distress, and aggression during laboratory sessions of no more than five participants during any session. At the conclusion of the laboratory session, participants were offered additional research credit in exchange for completing a measure of state self-esteem via the internet each evening at approximately 10 p.m. for seven consecutive days. Of the 165 participants who completed the initial questionnaires, 122 participants (37 men and 85 women) completed these additional daily measures for three or more days.[1] That is, 74% of the initial participants completed the minimum number of state self-esteem measures with 35% of our final sample completing these measures for all seven days. The mean age of the participants was 19.35 years ($SD = 2.97$) and their racial/ethnic composition was 75% White, 20% Black, and 5% other. These participants did not differ from those who did not complete the daily measures in terms of gender, self-esteem level, psychological distress, or aggression, $ts(163) < 1.38$, *ns*. These participants contributed a total of 708 daily reports (i.e., an average of 5.80 reports for each participant).

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 $\alpha = .88$.

Self-esteem instability. The method for measuring self-esteem instability was adapted from the procedure that was initially developed by Kernis and his colleagues (e.g., Kernis et al., 1989). Participants were asked to complete a modified version of the Rosenberg Self-esteem Scale via the internet at the end of each day for 7 consecutive days. This instrument was modified to capture state self-esteem by asking participants to provide the response that best reflected how they felt at the moment they completed the measure rather than how they generally felt about themselves. Responses to these items were made on scales ranging from 1 (*strongly disagree*) to 10 (*strongly agree*). The within-subject standard deviation across the repeated assessments of state self-esteem served as the index of self-esteem instability with higher standard deviations indicating higher levels of self-esteem instability. For the present study, the internal consistency of state self-esteem (averaged across the 7 days) was .83.

Global distress. The Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1992) is a 90-item instrument designed to assess psychological symptoms that have been experienced across nine areas of potential dysfunction: somatization (12 items; e.g., ''faintness or dizziness''), obsessive-compulsive (10 items; e.g., ''having to check and double check what you do''), interpersonal sensitivity (9 items; e.g., ''feeling that people are unfriendly or dislike you''), depression (13 items; e.g., ''feeling lonely''), anxiety (10 items; e.g., ''feeling fearful''), hostility (6 items; e.g., ''feeling easily annoyed or irritated''), phobic anxiety (7 items; e.g., ''feeling afraid to travel on buses, subways, or trains''), paranoid ideation (6 items; e.g., ''feeling that most people cannot be trusted''), and psychoticism (10 items; e.g., ''the idea that someone else can control your thoughts''). Respondents were asked to indicate how much they were distressed by each symptom during the past week on scales ranging from 0 (*not at all*) to 4 (*extremely*). A composite score referred to as the *global severity index* was used as an index of global distress which had an internal consistency of .92.

Aggression. The Buss–Perry Aggression Questionnaire (Buss & Perry, 1992) is a 29-item measure of aggression that consists of four subscales: anger (7 items; e.g., ''I have trouble controlling my temper''; $\alpha = .85$), hostility (8 items; e.g., ''I am sometimes eaten up with jealousy''; $\alpha = .81$), verbal aggression (5 items; e.g., ''My friends say that I'm somewhat argumentative''; $\alpha = .77$), and physical aggression (9 items; e.g., ''Once in a while I can't control the urge to strike another person''; $\alpha = .80$). Responses were made on scales ranging from 1 (*never or hardly applies to me*) to 5 (*very often applies to me*). This instrument is regarded as a well-validated and reliable measure of aggression (e.g., Felsten & Hill, 1999).

Results

The means, standard deviations, and intercorrelations for the measures in Study 1 are presented in Table 1. Moderational analyses were conducted to determine whether self-esteem instability qualified the association between self-esteem level and psychological adjustment. This was accomplished by conducting a series of hierarchical multiple regression analyses in which each indicator of adjustment was regressed onto self-esteem level, self-esteem instability, and gender (0 = *female*, 1 = *male*). We included gender 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, Clark, & Beckman, in press) and aggression

TABLE 1 Intercorrelations and Descriptive Statistics for Self-esteem Level, Self-esteem Instability, and the Indicators of Psychological Adjustment

Study 1

	1	2	3	4	5	6	7
1. Self-esteem level	—						
2. Self-esteem instability	−.20*	—					
3. Global distress	−.47***	.29***	—				
4. Anger	−.28**	.18*	.45***	—			
5. Hostility	−.39***	.23*	.53***	.61***	—		
6. Verbal aggression	−.18*	.26**	.22*	.55***	.39***	—	
7. Physical aggression	−.14	.19*	.32***	.60***	.42***	.60***	—
M	4.24	0.65	0.78	2.40	2.67	2.70	2.27
SD	0.76	0.50	0.68	0.77	0.81	0.74	0.79

Study 2

	1	2	3	4	5	6
1. Self-esteem level	—					
2. Self-esteem Instability	−.09	—				
3. Depression	−.52***	.21**	—			
4. Hopelessness	−.50***	.27***	.66***	—		
5. Anxiety	−.35***	.08	.60***	.39***	—	
6. Rejection sensitivity	−.47***	.13	.46***	.55***	.30***	—
M	4.11	0.67	11.09	3.24	10.54	11.54
SD	0.65	0.54	8.68	3.43	10.10	4.08

(*continued*)

TABLE 1 (*Continued*)

Study 3

	1	2	3	4	5	6
1. Self-esteem level	—					
2. Self-esteem instability	−.22**	—				
3. Global distress	−.44***	.28***	—			
4. Positive affect	.60***	−.17*	−.35***	—		
5. Negative affect	−.38***	.33***	.74***	−.25***	—	
6. Well-being	.59***	−.34***	−.56***	.60***	−.56***	—
M	4.01	0.54	0.82	3.65	2.10	4.60
SD	0.76	0.49	0.69	0.70	0.68	0.72

Notes: *$p < .05$; **$p < .01$; ***$p < .001$.

(Webster et al., 2007). The continuous predictor variables were centered for the purpose of testing interactions (Aiken & West, 1991). For these analyses, the main effect terms for self-esteem level, self-esteem instability, and gender were entered on Step 1. The two-way interactions of the main effect terms 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. These simple slopes were conducted using values that were one standard deviation above the mean to represent those with high self-esteem and one standard deviation below the mean to represent those with low self-esteem.

Global distress. The results of the analysis concerning global distress found main effects for self-esteem level ($\beta = -0.43$, $t = -5.29$, $p < .001$) and self-esteem instability ($\beta = 0.20$, $t = 2.41$, $p < .05$) that were qualified by their two-way interaction ($\beta = 0.20$, $t = 2.42$, $p < .05$). The predicted values for this interaction are presented in Panel A of Figure 1. Simple slopes tests found that the slope of the line representing the associations between self-esteem instability and global distress was significant for those with high levels of self-esteem ($\beta = 0.33$, $t = 2.69$, $p < .01$) but not for those with low levels of self-esteem ($\beta = 0.06$, $t < 1$, *ns*). These results show that individuals with low self-esteem report the highest levels of distress and that the stability of their self-esteem has no impact on their distress. However, self-esteem instability was associated with relatively more distress for those with high levels of self-esteem. The same interaction of self-esteem level and self-esteem instability that emerged for the global distress composite score was also observed for the following subscales: depression ($\beta = 0.21$, $t = 2.36$, $p < .05$), somatization ($\beta = 0.28$, $t = 3.26$, $p < .001$), phobic anxiety ($\beta = 0.24$, $t = 2.74$, $p < .01$), hostility ($\beta = 0.22$, $t = 2.40$, $p < .05$), interpersonal sensitivity ($\beta = 0.23$, $t = 2.64$, $p < .01$), and psychoticism ($\beta = 0.20$, $t = 2.30$, $p < .05$). However, the interaction of self-esteem level and self-esteem instability failed to emerge for these subscales: anxiety ($\beta = 0.12$, $t = 1.39$, *ns*), obsessive-compulsive ($\beta = 0.16$, $t = 1.88$, *ns*), and paranoid ideation ($\beta = 0.12$, $t = 1.41$, *ns*).

Anger. The analysis for anger found a main effect for self-esteem level ($\beta = -0.26$, $t = -2.97$, $p < .01$) that was qualified by the three-way interaction of self-esteem level, self-esteem instability, and gender ($\beta = -0.27$, $t = -2.92$, $p < .01$). 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 self-esteem level and self-esteem instability was significant for men and women separately. These analyses found that this two-way interaction emerged for both men ($\beta = -0.32$, $t = -2.08$, $p < .05$) and women ($\beta = 0.33$, $t = 2.95$, $p < .01$). Simple slopes tests were then conducted which found that the slopes of the lines representing the association between self-esteem instability and anger were significant for men with low self-esteem ($\beta = 0.32$, $t = 2.08$, $p < .05$) and women with high self-esteem ($\beta = 0.44$, $t = 3.19$, $p < .01$) but not for men with high self-esteem ($\beta = -0.16$, $t = -2.08$, *ns*) or women with low self-esteem ($\beta = 0.08$, $t < 1$, *ns*). Taken together, these results show that the highest levels of anger were reported by men with unstable low self-esteem and women with stable high self-esteem reported the lowest levels of anger.

Hostility. Self-esteem level was associated with hostility ($\beta = -0.36$, $t = -4.22$, $p < .001$) but this main effect was qualified by the interaction of self-esteem level and

TABLE 2 Study 1: Regressions of the Indicators of Psychological Adjustment on Self-esteem Level, Self-esteem Instability, and Gender

	Global distress			Anger			Hostility			Verbal aggression			Physical aggression		
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β
Step 1	.26***	.26***		.12**	.12**		.18***	.18***		.19***	.19***		.29***	.29***	
Self-esteem level (SEL)			−0.43***			−0.26***			−0.36***			−0.14			−0.12
Self-esteem instability (SEI)			0.20*			0.12			0.15			0.21*			−0.13
Gender			0.04			0.16			0.11			0.32***			0.50***
Step 2	.31***	.05*		.18***	.06*		.25***	.07*		.24***	.05*		.31***	.02	
SEL × SEI			0.20*			0.19*			0.28**			0.18*			0.04
SEL × Gender			−0.04			−0.17			−0.02			−0.04			−0.14
SEI × Gender			0.06			−0.12			−0.04			0.00			−0.10
Step 3	.31***	.00		.23***	.05*		.27***	.02		.24***	.00		.36***	.05*	
SEL × SEI × Gender			0.07			−0.27**			−0.16			−0.06			−0.17*

Notes: *$p < .05$; **$p < .01$; ***$p < .001$.

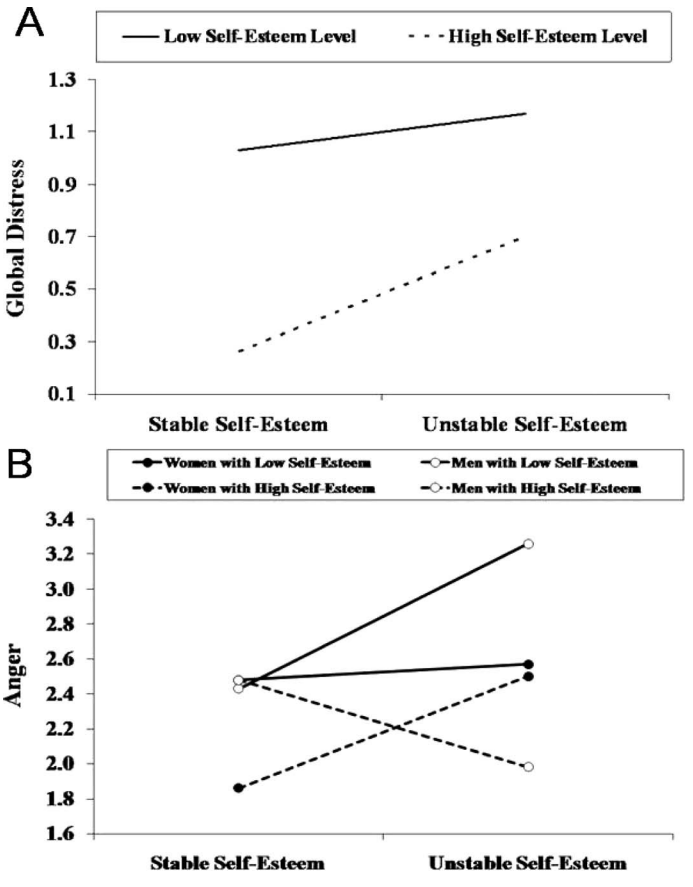

FIGURE 1 Study 1: Predicted values for Global Distress (Panel A) and Anger (Panel B) illustrating the interaction of self-esteem level, self-esteem instability, and gender at values that are one standard deviation above and below their respective means. Scores for Global Distress may range from 0 to 4 and scores for Anger may range from 1 to 5.

self-esteem instability ($\beta = 0.28$, $t = 3.24$, $p < .01$). The pattern of the predicted values for this interaction was very similar to the pattern for global distress presented in Panel A of Figure 1. The slope of the line representing the association between self-esteem instability and hostility was significant for those with high levels of self-esteem ($\beta = 0.40$, $t = 3.15$, $p < .01$) but not for those with low levels of self-esteem ($\beta = 0.03$, $t < 1$, *ns*). These results show that individuals with low self-esteem report the highest levels of hostility regardless of the stability of their self-esteem. However, self-esteem instability was associated with higher levels of hostility for those with high self-esteem.

Verbal aggression. For the analysis concerning verbal aggression, main effects emerged for self-esteem instability ($\beta = 0.21$, $t = 2.52$, $p < .05$) and gender ($\beta = 0.32$, $t = 3.90$, $p < .001$) such that higher levels of verbal aggression were reported by those with unstable self-esteem and men. However, these main effects were qualified by the interaction of self-esteem level and self-esteem instability ($\beta = 0.18$, $t = 2.00$, $p < .05$).

The predicted values for this interaction formed a pattern that was also similar to the one that emerged for global distress in Panel A of Figure 1. Simple slopes tests found that the slope of the line representing the association between self-esteem instability and verbal aggression was significant for those with high self-esteem ($\beta = 0.36$, $t = 2.77$, $p < .05$) but not for those with low self-esteem ($\beta = 0.13$, $t = 1.18$, *ns*). These results show that individuals with low self-esteem report high levels of verbal aggression regardless of the stability of their feelings of self-worth. However, self-esteem instability was associated with higher levels of verbal aggression for those with high self-esteem.

Physical aggression. A main effect emerged for gender ($\beta = 0.50$, $t = 6.42$, $p < .001$) such that men reported higher levels of physical aggression than was reported by women. However, this main effect was qualified by the three-way interaction of self-esteem level, self-esteem instability, and gender ($\beta = -0.17$, $t = -2.03$, $p < .05$). The pattern of the predicted values for this interaction was similar to the pattern for anger that was displayed in Panel B of Figure 1. This interaction was probed by first examining whether the two-way interaction of self-esteem level and self-esteem instability was significant for men and women separately. These analyses found that this two-way interaction emerged for men ($\beta = -0.31$, $t = -2.07$, $p < .05$) but not women ($\beta = 0.12$, $t = 1.04$, *ns*). Simple slopes tests were then conducted which found that the slopes of the lines representing the association between self-esteem instability and physical aggression were significant for men with low self-esteem ($\beta = 0.49$, $t = 2.17$, $p < .05$) but not for men with high self-esteem ($\beta = -0.29$, $t = -1.29$, *ns*). Taken together, these results show that the highest levels of anger were reported by men with unstable low self-esteem. A very different pattern emerged for women such that women with stable high self-esteem reported the lowest levels of physical aggression.

Discussion

Our results provided support for our hypothesis that self-esteem instability would moderate the association between self-esteem level and psychological adjustment. This is the first study to examine the link between self-esteem instability and global distress and it replicates previous research concerning aggression (Kernis et al., 1989; Webster et al., 2007). It is important to note that our results concerning the association between self-esteem instability and aggression were similar—but not identical—to those of previous studies. The differences are largely due to the elevated levels of aggression reported by those with low levels of self-esteem. It is possible that the relatively high levels of aggression observed in the present study may be explained by the fact that the study was conducted in the southern region of the United States which has an underlying culture of honor that may be viewed as condoning aggressive behavior by individuals who feel compelled to use aggression to compensate for their relatively low-status (Henry, 2009).

It is also important to note that the level of distress reported by participants in this study was relatively low. That is, our participants reported levels of distress similar to what has been found in other studies using undergraduate participants but their distress is much less than would be expected from a clinical sample. As a result, it is unclear whether the results of the present study would extend to those who experience much higher levels of distress.

Study 2

The purpose of Study 2 was to extend the findings of Study 1 by examining whether self-esteem instability moderated the association of self-esteem level with forms of maladjustment that reflect either dejection (i.e., depression and hopelessness) or agitation (i.e., anxiety and rejection sensitivity).

Method

Participants and Procedure

Participants were 240 undergraduates who participated in return for partial fulfillment of a research participation requirement. Of the 240 participants who completed the initial questionnaires, 199 participants (66 men and 133 women) completed additional daily measures of state self-esteem for three or more days during this 7-day period (83% of the initial sample with 41% of our final sample completing daily measures for all seven days). The mean age of the participants was 20.87 years ($SD = 3.65$) and their racial/ethnic composition was 54% White, 40% Black, and 6% other. These participants did not differ from those who did not complete the daily measures in terms of gender, self-esteem level, depressive symptoms, hopelessness, or anxiety, $ts(238) < 1.46$, *ns*. These participants contributed a total of 1,134 daily reports (i.e., an average of 5.70 reports for each participant).

Measures

The measures of self-esteem level ($\alpha = .83$) and self-esteem instability ($\alpha = .85$) from Study 1 were used in Study 2.

Depression. The Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report inventory of depressive symptoms that has been used with both psychiatric and nonpsychiatric samples. Each item consists of four statements which are scored from 0 to 3 in order to indicate increases in symptom severity. Scores on the BDI-II can range from 0 to 63. Previous research has found the BDI-II to have high internal consistency, be temporally reliable, and converge with other measures of depressive symptomatology (Beck et al., 1996). The internal consistency of the BDI-II was high for the present study ($\alpha = .90$).

Hopelessness. The Beck Hopelessness Scale (Beck & Steer, 1998; Beck, Weissman, Lester, & Trexler, 1974) is a 20-item, true–false inventory that was developed to assess the extent to which individuals possess a general tendency toward pessimism and negative expectations about the future. Responses for each item that indicated hopelessness received a score of 1 (e.g., ''I might as well give up because there is nothing I can do about making things better for myself'') and responses that indicated non-hopelessness received a score of 0 (e.g., ''I look forward to the future with hope and enthusiasm'') with total scores for the Beck Hopelessness Scale ranging from 0 to 20. The internal consistency for the Beck Hopelessness Scale was .83 for the present study.

Anxiety. The Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988; Beck, & Steer, 1990) is a 21-item instrument developed to identify the degree to which individuals regularly suffer from both the cognitive (e.g., nervousness, fear of

losing control) and somatic elements (e.g., heart pounding, difficulty breathing) of anxiety. These items were rated on scales ranging from 0 (*not at all*) to 3 (*severely*). Scores on the Beck Anxiety Inventory can range from 0 to 63 with higher scores indicating higher levels of symptom severity. The Beck Anxiety Inventory has been found to have adequate psychometric properties and to converge with other measures of anxiety (Beck & Steer, 1990; Beck et al., 1988; Creamer, Foran, & Bell, 1995). In the present study, the internal consistency of the Beck Anxiety Inventory was very high ($\alpha = .91$).

Rejection sensitivity. The Rejection Sensitivity Questionnaire (Downey & Feldman, 1996) assesses anxious expectations of rejection from close others. This measure consists of 18 scenarios that describe situations in which social rejection is possible (e.g., "You ask your friend to do you a big favor"). Respondents are asked to provide answers for two questions following each scenario: (1) how concerned or anxious they would feel about the possibility of being rejected, and (2) their expectation that the rejection would actually occur. Responses for the anxiety items were made using scales that ranged from 1 (*very unconcerned*) to 7 (*very concerned*) and responses for the expectation items were made using scales that ranged from 1 (*very unlikely*) to 7 (*very likely*). The anxiety score for each scenario was multiplied by its expectation score to capture anxious expectations in which affect amplifies the impact of a specific cognition (Bandura, 1986). The anxious expectation scores were averaged across the 18 scenarios to arrive at a single index of rejection sensitivity such that scores could range from 1 to 49 with higher scores indicating higher levels of rejection sensitivity. This measure has been found to have adequate psychometric properties (e.g., Downey & Feldman, 1996) and its internal consistency was .82 for the present study.

Results

The means, standard deviations, and intercorrelations for the measures in Study 2 are presented in Table 1. Hierarchical multiple regression analyses were used to examine whether self-esteem instability moderated the association between self-esteem level and indicators of psychological adjustment. The results of these analyses are presented in Table 3.

Depression. The results of the analysis concerning depression found main effects for self-esteem level ($\beta = -0.50$, $t = 8.30$, $p < .001$) and self-esteem instability ($\beta = 0.17$, $t = 2.78$, $p < .01$) that were qualified by their two-way interaction ($\beta = -0.25$, $t = -4.09$, $p < .001$). The predicted values for this interaction are presented in Panel A of Figure 2, which shows that the slope of the line representing the associations between self-esteem instability and depression was significant for those with low self-esteem ($\beta = 0.41$, $t = 4.34$, $p < .001$) but not for those with high self-esteem ($\beta = -0.04$, $t < 1$, *ns*). These results show that individuals with low self-esteem reported the highest levels of depressive symptoms and that their depressive symptoms increased as their feelings of self-worth became less stable. In contrast, individuals with high self-esteem reported low levels of depression regardless of the stability of their feelings of self-worth.

Hopelessness. The analysis for hopelessness found main effects for self-esteem level ($\beta = -0.50$, $t = -8.35$, $p < .001$), self-esteem instability ($\beta = 0.21$, $t = 3.55$, $p < .001$), and gender ($\beta = 0.13$, $t = 2.24$, $p < .05$) such that higher levels of

TABLE 3 Study 2: Regressions of the Indicators of Psychological Adjustment on Self-esteem Level, Self-esteem Instability, and Gender

	Depression			Hopelessness			Anxiety			Rejection sensitivity		
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β
Step 1	.30***	.30***		.32***	.32***		.13***	.13***		.24***	.24***	
Self-esteem level (SEL)			−0.50***			−0.50***			−0.33***			−0.47***
Self-esteem instability (SEI)			−0.17*			0.21***			0.05			0.08
Gender			−0.03			0.13*			−0.06			0.11
Step 2	.37***	.07***		.34***	.02		.14***	.01		.26***	.02	
SEL × SEI			−0.25***			−0.09			0.04			−0.13*
SEL × Gender			−0.07			−0.05			−0.06			−0.01
SEI × Gender			−0.03			0.05			−0.17			−0.03
Step 3	.38***	.01		.38***	.04*		.15***	.01		.26***	.00	
SEL × SEI × Gender			0.11			0.18*			0.10			0.03

Notes: *$p < .05$; **$p < .01$; ***$p < .001$.

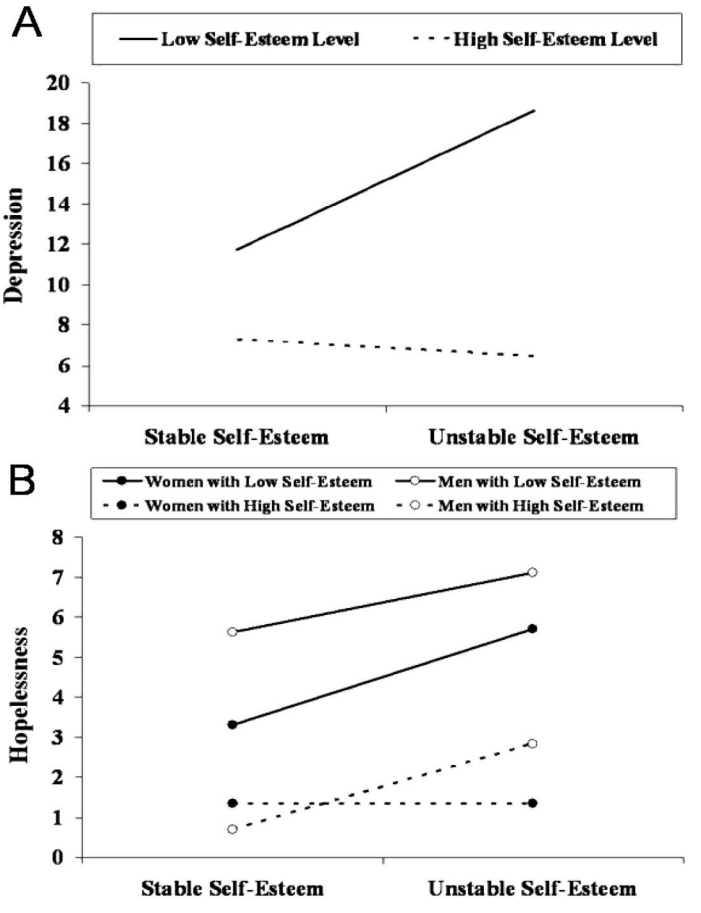

FIGURE 2 Study 2: Predicted values for Depression (Panel A) and Hopelessness (Panel B) illustrating the interaction of self-esteem level, self-esteem instability, and gender at values that are one standard deviation above and below their respective means. Scores for Depression may range from 0 to 63 and scores for Hopelessness may range from 0 to 20.

hopelessness were found for those with lower levels of self-esteem, higher levels of self-esteem instability, and men. These main effects were qualified by their three-way interaction ($\beta = 0.18$, $t = 2.20$, $p < .05$). The predicted values for this interaction are presented in Panel B of Figure 2. This interaction was initially probed by examining whether the two-way interaction of self-esteem level and self-esteem instability was significant for men and women separately. These analyses found that this two-way interaction emerged for women ($\beta = -0.17$, $t = -2.50$, $p < .05$) but not men ($\beta = 0.11$, $t < 1$, *ns*). Simple slopes tests were then conducted, which showed that the association between self-esteem instability and hopelessness was significant for men with high self-esteem ($\beta = 0.40$, $t = 3.33$, $p < .05$) and women with low self-esteem ($\beta = 0.30$, $t = 3.33$, $p < .001$) but not for men with low self-esteem ($\beta = 0.20$, $t = 1.21$, *ns*) or women with high self-esteem ($\beta = -0.01$, $t < 1$, *ns*). Taken together, these results show that unstable self-esteem was associated with feelings of hopelessness for everyone except women with high self-esteem.

Anxiety. Self-esteem level was associated with anxiety ($\beta = -0.33$, $t = -4.90$, $p < .001$) such that lower levels of self-esteem were associated with higher levels of anxiety. However, no other main effects or interactions emerged from this analysis.

Rejection sensitivity. A main effect emerged for self-esteem level ($\beta = -0.47$, $t = -7.43$, $p < .001$) but this was qualified by the interaction of self-esteem level and self-esteem instability ($\beta = -0.13$, $t = -2.04$, $p < .05$). The pattern of the predicted values for this interaction was similar to the pattern for depression displayed in Panel A of Figure 2. Simple slopes tests found that the slope of the line representing the association between self-esteem instability and rejection sensitivity was significant for those with low self-esteem ($\beta = 0.22$, $t = 2.12$, $p < .05$) but not for those with high self-esteem ($\beta = -0.03$, $t < 1$, *ns*). These results show that individuals with low self-esteem reported the highest levels of rejection sensitivity and that their fear of rejection increased as their feelings of self-worth became less stable. In contrast, individuals with high self-esteem reported relatively low levels of rejection sensitivity regardless of the stability of their feelings of self-worth.

Discussion

The results of Study 2 provided additional support for our prediction that self-esteem instability would moderate the association between self-esteem level and forms of maladjustment. These results for depression and hopelessness are consistent with those of some previous studies but similar results have appeared inconsistently across studies (Roberts, 2006). One possible explanation for this inconsistency is that self-esteem instability may only be important at certain points during a dysphoric episode. For example, instability may be important for triggering a dysphoric episode but not for maintaining dysphoria over time. Self-esteem instability also moderated the association between self-esteem level and rejection sensitivity showing a pattern that was highly consistent with the pattern that was observed for depression and hopelessness. This similarity may be explained by the fact that the "anxious expectations" surrounding rejection sensitivity are strongly associated with aspects of dejection such as depression (e.g., McDonald, Bowker, Rubin, Laursen, & Duchene, 2010). Self-esteem instability failed to moderate the association between self-esteem level and anxiety.

Study 3

The purpose of Study 3 was to extend the findings of Studies 1 and 2 by examining whether self-esteem instability moderated the association that self-esteem level had with global distress, affect, and positive adjustment.

Method

Participants and Procedure

Participants were 298 undergraduates who participated in return for partial fulfillment of a research participation requirement. Of the 298 participants who completed the initial questionnaires, 183 participants (62 men and 121 women) completed these additional daily measures for three or more days during the 7-day period (61% of those who completed the initial measures with 38% of our sample completing all seven days). The mean age of the participants was 19.78 years

($SD = 3.21$) and their racial/ethnic composition was 56% White, 37% Black, and 7% other. These participants did not differ from those who did not complete the daily measures in terms of gender, self-esteem level, depressive symptoms, hopelessness, or anxiety, $ts(296) < 1.53$, *ns*. These participants contributed a total of 1,049 daily reports (i.e., an average of 5.73 reports for each participant).

Measures

The measures of self-esteem level ($\alpha = .89$) and self-esteem instability ($\alpha = .86$) from Studies 1 and 2 were used in Study 3.

Global distress. The Brief Symptom Inventory (Derogatis & Melisaratos, 1983) is a 53-item short-form of the SCL-90-R that assesses the same nine areas of potential dysfunction: somatization (7 items), obsessive-compulsive (6 items), interpersonal sensitivity (4 items), depression (6 items), anxiety (6 items), hostility (5 items), phobic anxiety (5 items), paranoid ideation (5 items), and psychoticism (5 items). Respondents were asked to indicate how much they were distressed by symptoms from each area of dysfunction during the past week on scales ranging from 0 (*not at all*) to 4 (*extremely*). A composite score was used as an indicator of global distress. The internal consistency for the global severity index was .95 for the present study.

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 affect. The PANAS consists of scales that measure positive affect (10 items; e.g., interested, enthusiastic, proud) and negative affect (10 items; e.g., distressed, scared, hostile). Participants were instructed to complete the items according to how they typically or generally feel. Responses were made on scales ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). For the present sample, the internal consistencies of these scales were high (.89 and .86 for positive affect and negative affect, respectively).

Psychological well-being. The Scales of Psychological Well-Being (Ryff, 1989) is an 18-item measure of overall positive adjustment which includes six dimensions: autonomy (3 items; e.g., ''I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people''), environmental mastery (3 items; e.g., ''I am quite good at managing the many responsibilities of my daily life''), personal growth (3 items; e.g., ''I think it is important to have new experiences that challenge how you think about yourself and the world''), positive relations with others (3 items; e.g., ''Most people see me as loving and affectionate''), purpose in life (3 items; e.g., ''Some people wander aimlessly through life, but I am not one of them''), and self-acceptance (3 items; e.g., ''When I look at the story of my life, I am pleased with how things have turned out''). Responses were made on scales ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite score reflecting total well-being was used in the present study ($\alpha = .86$).

Results

The means, standard deviations, and intercorrelations for the measures in Study 3 are presented in Table 1. Hierarchical multiple regression analyses were used to examine whether self-esteem instability moderated the association between self-

esteem level and indicators of psychological adjustment. The results of these analyses are presented in Table 4.

Global distress. The results of the analysis concerning global distress found main effects for self-esteem level ($\beta = -0.41$, $t = -6.02$, $p < .001$) and self-esteem instability ($\beta = 0.19$, $t = 2.77$, $p < .01$) that were qualified by their two-way interaction ($\beta = 0.17$, $t = 2.09$, $p < .05$). The predicted values for this interaction are presented in Panel A of Figure 3. Simple slopes tests found that the slope of the line representing the association between self-esteem instability and global distress was significant for those with high self-esteem ($\beta = 0.33$, $t = 3.68$, $p < .001$) but not for those with low self-esteem ($\beta = 0.09$, $t < 1$, *ns*). These results show that individuals with low self-esteem reported higher levels of distress than those with high self-esteem regardless of the stability of their self-esteem. Self-esteem instability was associated with higher levels of global distress for those with high self-esteem. The same interaction of self-esteem level and self-esteem instability that emerged for the global distress composite score was observed for five of the nine subscales: depression ($\beta = 0.19$, $t = 2.27$, $p < .05$), somatization ($\beta = 0.21$, $t = 2.32$, $p < .05$), hostility ($\beta = 0.18$, $t = 2.21$, $p < .05$), interpersonal sensitivity ($\beta = 0.16$, $t = 2.18$, $p < .05$), and psychoticism ($\beta = 0.16$, $t = 2.17$, $p < .05$). However, the interaction of self-esteem level and self-esteem instability failed to emerge for anxiety ($\beta = 0.08$, $t = 1.10$, *ns*), phobic anxiety ($\beta = 0.06$, $t < 1$, *ns*), obsessive-compulsive ($\beta = 0.13$, $t = 1.86$, *ns*), and paranoid ideation ($\beta = 0.13$, $t = 1.88$, *ns*).

Positive affect. Self-esteem level was associated with positive affect ($\beta = 0.56$, $t = 9.06$, $p < .001$) such that higher levels of self-esteem were associated with higher levels of positive affect. No other main effects or interactions emerged from this analysis.

Negative affect. Main effects emerged for self-esteem level ($\beta = -0.34$, $t = -4.88$, $p < .001$) and self-esteem instability ($\beta = 0.26$, $t = 3.74$, $p < .001$) but these effects were qualified by their interaction ($\beta = 0.17$, $t = 2.43$, $p < .05$). The pattern of the predicted values for this interaction was similar to the pattern for global distress depicted in Panel A of Figure 3. Simple slopes tests found that the slope of the line representing the association between self-esteem instability and negative affect was significant for those with high self-esteem ($\beta = 0.39$, $t = 4.33$, $p < .001$) but not for those with low self-esteem ($\beta = -0.13$, $t < 1$, *ns*). These results show that individuals with low self-esteem reported higher levels of negative affect than those with high self-esteem regardless of the stability of their self-esteem. However, self-esteem instability was associated with higher levels of negative affect for those with high self-esteem.

Psychological well-being. The analysis for well-being found main effects for self-esteem level ($\beta = 0.53$, $t = 8.74$, $p < .001$) and self-esteem instability ($\beta = -0.23$, $t = -3.80$, $p < .001$) that were qualified by their interaction ($\beta = -0.21$, $t = -3.66$, $p < .001$). The predicted values for this interaction are presented in Panel B of Figure 3. Simple slopes tests found that the slope of the line representing the association between self-esteem instability and psychological well-being was significant for those with high self-esteem ($\beta = -0.43$, $t = -5.61$, $p < .001$) but not for those with low self-esteem ($\beta = -0.05$, $t < 1$, *ns*). These results show that individuals with high self-esteem reported higher levels of psychological well-being than those with low self-esteem. However, self-esteem instability was associated with less well-being for those

TABLE 4 Study 3: Regressions of the Indicators of Psychological Adjustment on Self-esteem Level, Self-esteem Instability, and Gender

	Global distress			Positive affect			Negative affect			Psychological well-being		
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β
Step 1	.23***	.23***		.37***	.37***		.21***	.21***		.40***	.40***	
Self-esteem level (SEL)			−0.41***			0.56***			−0.34***			0.53***
Self-esteem instability (SEI)			0.19**			−0.04			0.26***			−0.23***
Gender			−0.05			−0.11			−0.06			−0.06
Step 2	.28***	.05*		.38***	.01		.25***	.04*		.46***	.06***	
SEL × SEI			0.17*			0.02			0.17*			−0.21***
SEL (Gender			0.03			0.08			0.14			−0.12
SEI × Gender			−0.07			0.02			0.08			0.01
Step 3	.28***	.00		.38***	.00		.25***	.00		.46***	.00	
SEL × SEI × Gender			−0.03			0.06			0.11			−0.06

Notes: *$p < .05$; **$p < .01$; ***$p < .001$.

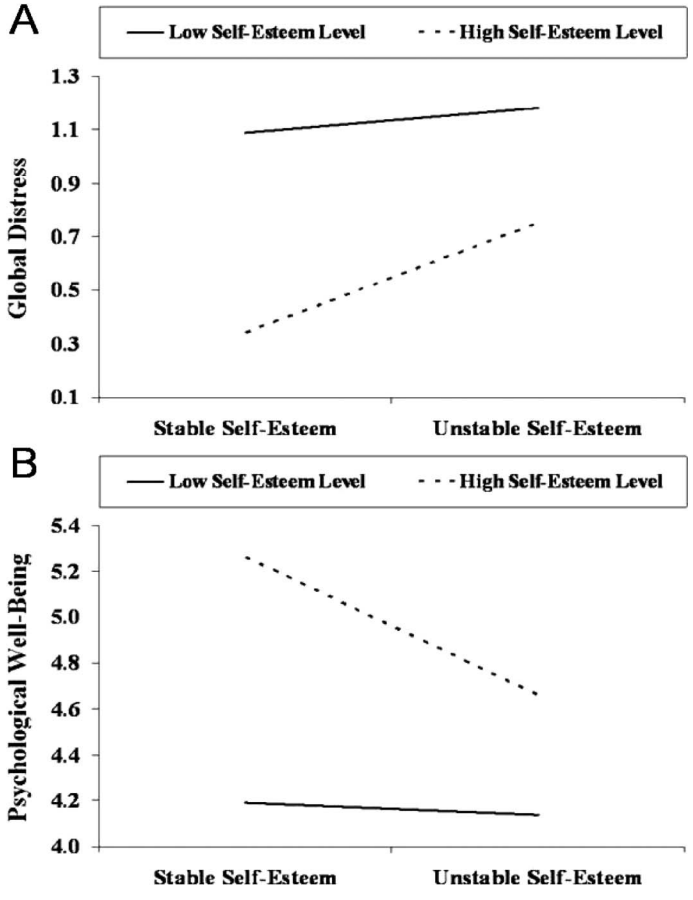

FIGURE 3 Study 3: Predicted values for Global Distress (Panel A) and Psychological Well-being (Panel B) illustrating the interaction of self-esteem level and self-esteem instability at values that are one standard deviation above and below their respective means. Scores for Global Distress may range from 0 to 4 and scores for Psychological Well-being may range from 1 to 6.

with high self-esteem. The interaction of self-esteem level and self-esteem instability that was observed for the composite score also emerged for five of the six subscales: autonomy ($\beta = -0.17$, $t = -2.68$, $p < .01$), environmental mastery ($\beta = -0.20$, $t = -3.14$, $p < .01$), personal growth ($\beta = -0.15$, $t = -2.09$, $p < .05$), positive relations with others ($\beta = -0.17$, $t = -2.63$, $p < .01$), and purpose in life ($\beta = -0.22$, $t = -2.99$, $p < .01$). The only exception was that the interaction of self-esteem level and self-esteem instability did not emerge for the self-acceptance subscale ($\beta = -0.09$, $t < 1$, *ns*).

Discussion

The results of Study 3 provided strong support for our prediction that self-esteem instability would moderate the association between self-esteem level and indicators of agitation. That is, higher levels of global distress and negative affect were observed

for those with unstable high self-esteem than for those with stable high self-esteem. Similarly, the results for psychological well-being showed a similar pattern such that individuals with unstable high self-esteem reported lower levels of well-being than those with secure high self-esteem. Self-esteem instability failed to moderate the association between self-esteem level and positive affect.

General Discussion

The purpose of the present studies was to examine whether self-esteem instability moderated the association between self-esteem level and psychological adjustment. Unstable self-esteem moderated the association that self-esteem level had with most of the indicators of adjustment that we examined in the present studies. These results suggest that it is important to account for self-esteem instability when considering the ties between self-esteem level and psychological adjustment because: (1) high self-esteem may not always be associated with positive outcomes; and (2) individuals with certain forms of low self-esteem may fare better under certain conditions than those with other forms of low self-esteem.

We believe the pattern of results may be explained in terms of the adjustment indicators capturing either dejection (i.e., forms of poor adjustment reflecting low levels of arousal such as depression) or agitation (i.e., forms of poor adjustment reflecting high levels of arousal such as aggression). Our findings show that self-esteem instability was generally associated with dejection for those with low levels of self-esteem and agitation for those with high levels of self-esteem. We believe this can be explained by regulatory focus theory (Higgins, 1997), which argues that individuals may develop different strategies for approaching pleasurable experiences or avoiding painful ones. More specifically, individuals with a promotion focus are sensitive to the presence or absence of positive outcomes, whereas those with a prevention focus are sensitive to the presence or absence of negative outcomes. We believe these differences in focus may apply to how individuals think about their self-esteem. Individuals with unstable low self-esteem may be likely to adopt a promotion focus because they are looking for ways to feel better about themselves for at least a brief period of time. This promotion focus may cause those with unstable low self-esteem to be vulnerable to feelings of dejection. As an example, this sort of pattern emerged for depression in Study 2. That is, we believe that the relatively high levels of depressive symptoms reported by those with unstable low self-esteem may be due to these individuals utilizing maladaptive intrapsychic processes (e.g., ineffective coping) or interpersonal strategies (e.g., excessive reassurance seeking; Roberts, 2006) in the hope that they will be able to feel better about themselves. Future research should examine whether processes such as excessive reassurance seeking clarify the association between unstable low self-esteem and depressive symptoms. In contrast, those with unstable high self-esteem may be likely to adopt a prevention focus because they are sensitive to any potential loss of their tenuous feelings of self-worth. This heightened sensitivity to the loss of self-esteem may lead those with unstable high self-esteem to be vulnerable to feelings of agitation. For example, this pattern emerged for global distress in Studies 1 and 3. We believe that those with stable high self-esteem report lower levels of distress than those with unstable high self-esteem because their secure feelings of self-worth provide them with adequate resources to protect them from adversity. Future research should directly examine the potential connection between self-esteem instability and regulatory focus.

Gender emerged as a moderator for some of the observed effects such that men and women with the same form of self-esteem sometimes reported different levels of adjustment. For example, self-esteem instability was associated with heightened physical aggression for men with low self-esteem but not for women with low self-esteem. This finding that the forms of self-esteem were associated with different outcomes for men and women is consistent with previous studies such as Zeigler-Hill et al. (in press), which found that the interpersonal styles of men with fragile high self-esteem reflected a blend of hostility and dominance, whereas the interpersonal styles of men with secure high self-esteem and women with either form of high self-esteem were characterized by affiliation and dominance. The moderating role of gender in these studies may be due, at least in part, to prescriptive gender norms concerning social behavior. For example, there are social expectations that women will be nicer than men and women who violate these prescriptive norms often suffer interpersonal and employment costs (e.g., Janoff-Bulman & Wade, 1996; Rudman, 1998; Rudman & Glick, 1999, 2001; Zeigler-Hill & Myers, 2009). Future studies concerning the correlates and consequences of unstable self-esteem should be certain to account for the possibility that gender differences may exist.

One of the strengths of the present studies is that they examined self-esteem instability using three large samples with each study examining different indicators of adjustment. This approach revealed that the association between self-esteem instability and adjustment depended on the self-esteem levels of the individuals such that those with unstable low self-esteem often reported high levels of dejection whereas those with unstable high self-esteem often report agitation. Despite the strengths of this research, it is also important to acknowledge some of its limitations. First, we were unable to determine whether unstable self-esteem causes maladjustment due to the correlational nature of our data. We assumed that unstable self-esteem would lead individuals to experience either dejection or agitation depending on their level of self-esteem but this cannot be established using the present data. For example, it is unclear whether unstable low self-esteem causes depressive symptoms as suggested by the vulnerability model (e.g., Beck, 1967) or if the direction of causation was reversed such that depressive symptoms lead to the development of unstable low self-esteem, which is consistent with the scar model (Orth et al., 2008). The scar model suggests that depressive symptoms cause changes in psychological functioning that lead to individuals to experience unstable self-esteem. Further research is needed to gain a more nuanced understanding of the causal link between unstable self-esteem and adjustment. Second, the present studies relied exclusively on self-report measures of adjustment, which makes it possible that our results may be influenced by socially desirable response distortions. It is important that future studies include indicators of adjustment that are less susceptible to response distortion (e.g., MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) as well as additional sources of information about the adjustment of the individual (e.g., evaluations by a clinician) in order to clarify the link between self-esteem instability and adjustment. Third, the generalizability of the present findings may be limited due to our reliance on undergraduate participants. It is unclear, for example, whether similar patterns would emerge for a clinical sample in which participants would be expected to report much higher levels of psychopathology than were observed in the present studies. It is important to note that we have focused on relative levels of adjustment (e.g., those with stable high self-esteem report less distress than those with unstable high self-esteem). This is important because the levels of maladjustment reported in the present studies were typical for

undergraduate samples but were significantly lower than what is typically observed for clinical samples. Future studies should attempt to extend the present results to clinical samples and to a broader array of adjustment indicators in order to gain a more comprehensive understanding of the connection between self-esteem and psychological functioning. Fourth, the present studies discussed the possible role of promotion and prevention focus in understanding the psychological adjustment of those with different forms of self-esteem without directly assessing the regulatory focus of our participants. It may be helpful for future studies to directly examine the link between unstable self-esteem and regulatory focus.

Conclusion

The findings of the present studies suggest that unstable self-esteem is associated with different indicators of maladjustment depending on self-esteem level. That is, unstable low self-esteem was associated with dejection whereas unstable high self-esteem was associated with agitation. These findings suggest the intriguing possibility that the poor adjustment reported by those with unstable self-esteem may be due, at least in part, to individuals with low self-esteem focusing on potential increases in self-esteem which may result in dejection whereas those with high self-esteem focus on their fears of suffering a loss of self-esteem which may lead to agitation. These results extend our understanding of the link between self-esteem and adjustment as well as providing initial support for the possibility that regulatory focus may be important for understanding the consequences of self-esteem instability.

Note

1. In order to assess self-esteem instability, it is essential that participants complete multiple measures of state self-esteem. As a result, some minimum number of completed state self-esteem measures must be established in order for participants to be included in the analyses. The decision to only include participants in the final analyses who contributed data for three or more days follows the convention established in previous research (see Zeigler-Hill & Showers, 2007, for a similar strategy). Preliminary analyses using more stringent criteria (e.g., only including participants who completed daily measures for five days) revealed very similar patterns so we decided to use the cutoff that would allow us to adequately assess self-esteem instability and exclude as few participants as possible. This basic approach was also followed in Studies 2 and 3.

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