Cognitive Therapy and Research, Vol. 29, No. 3, June 2005 (© 2005), pp. 301–314
DOI: 10.1007/s10608-005-1098-2

Self-Criticism, Failure, and Depressive Affect: A Test of Personality–Event Congruence and Symptom Specificity

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Diathesis-stress models of cognitive vulnerability to depression posit that personality factors (e.g., self-criticism) interact with congruent negative life events to produce distinct depressive symptom clusters. The present study employed a stress-induction procedure to assess whether self-criticism would interact with achievement-related failure to increase introjective depressive affect in a nonclinical sample. Hypotheses were generally supported with respect to introjective depressive affect reported immediately following the stress-induction procedure. However, self-criticism did not interact with achievement failure in predicting depressive affect reported 24 hours later.

KEY WORDS: self-criticism; depression; congruence; specificity.

Theorists from diverse orientations have proposed that a personality style involving strong needs for achievement may confer vulnerability to depression (e.g., Arieti & Bemporad, 1980; Beck, 1983; Blatt, D'Afflitti, & Quinlan, 1976). Blatt identified this style as *self-criticism*, and he conceptualized it as a counterpart to the style of *dependency*, in which strong interpersonal strivings create depressive vulnerability (Blatt et al., 1976). Blatt's psychodynamically-informed model of depressive vulnerability posits that each of those personality styles interacts with congruent life stressors to produce distinct depressive states. Beck's (1983) cognitive–behavioral vulnerability model is consistent with Blatt's formulation (although the personality styles autonomy/sociotropy feature in place of self-criticism/dependency).

The principle of *personality–event congruence* suggests that each personality style will predict depressive affect in response to a matching class of life stressors. As self-critical individuals derive self-worth primarily from achievement, they are thought to be vulnerable to depressed mood following achievement-related failures; by contrast, dependent individuals are vulnerable in response to interpersonal

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rejection and loss (Blatt & Zuroff, 1992; see Beck, 1983, regarding congruence with autonomy/sociotropy). Furthermore, the principle of *symptom specificity* suggests that each personality style will tend to precipitate depressive affect with unique clinical features. Self-critical individuals are thought to be prone to "introjective" depressive affect, which involves feelings of inferiority, guilt, and worthlessness, as distinct from "anaclitic" affect reflecting the abandonment concerns of the dependent style (Blatt, 1974; Blatt et al., 1976; Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; see Beck, 1983, regarding symptom specificity with autonomy/sociotropy). These principles are conceptualized as relevant for the prediction of both mild depressive affect and states of clinical depression.

There is considerable evidence that self-criticism predicts depression symptoms (Nietzel & Harris, 1990). However, cross-sectional and longitudinal studies to verify the congruence and specificity hypotheses with self-criticism have produced mixed findings (Coyne & Whiffen, 1995; Robins, Hayes, Block, Kramer, & Villena, 1995).[4] Although support for personality–event congruence was obtained in a study of remitted depressed patients (Segal, Shaw, Vella, & Katz, 1992), most studies on congruence reported nonspecific, weak, or null findings in clinical and nonclinical samples (Bartelstone & Trull, 1995; Hammen, Marks, Mayol, & deMayo, 1985; Lakey & Ross, 1994; Robins et al., 1995; Rude & Burnham, 1993; Segal, Shaw, & Vella, 1989; Voyer & Cappeliez, 2002). With respect to symptom specificity, several studies found self-criticism to be associated with introjective depressive affect as predicted (Blatt et al., 1976; Persons, Miranda, & Perloff, 1991; Zuroff, Igreja, & Mongrain, 1990), but others did not (Klein, Harding, Taylor, & Dickstein, 1988; Robins et al., 1995). By contrast, findings regarding dependency have generally been more supportive of both the congruence and specificity hypotheses (see Coyne & Whiffen, 1995; Nietzel & Harris, 1990).

Inconsistent results may reflect problems with the validity of the self-criticism construct, or they may derive from measurement error in its assessment. Alternately, life event measures employed in naturalistic research may fail to assess adequately which events have the strongest subjective impact on achievement-related strivings. Indeed, Rude and Burnham (1993) obtained significant findings with respect to personality–event congruence for self-criticism using participants' subjective impact ratings of achievement-related stressors in place of event frequency counts.

Laboratory controlled studies can provide a valuable counterpart to naturalistic studies of personality vulnerability and may help to clarify the nature of the relation between self-criticism and depressive affect. The presentation of standardized stressors reduces the variance associated with individual differences in the frequency and subjective impact of achievement-related life events. However, surprisingly few such studies have been conducted to test personality–event congruence or symptom specificity.

[4]Beck's construct of autonomy is conceptually distinct from Blatt's self-criticism, and measures of the two styles are only weakly to moderately correlated (e.g., Bartelstone & Trull, 1995; Rude & Burnham, 1993). However, studies testing personality–event congruence and symptom specificity with autonomy have produced similarly variable findings (Robins et al., 1995).

In the only published laboratory study to assess congruence and specificity with Blatt's constructs, Zuroff and Mongrain (1987) played audiotaped portrayals of failure and rejection to self-critical, dependent, and control college students. Contrary to personality–event congruence, self-critics reported increased distress in response to both congruent and non-congruent stressors (i.e., failure and rejection). With respect to symptom specificity, although self-critics reported more introjective than anaclitic affect in response to failure as predicted, their introjective depression scores did not exceed those of dependent participants. However, the failure script employed by the investigators incorporated an interpersonal component, limiting conclusions that can be drawn about the self-criticism by failure interaction (Blaney, 2000). In addition, baseline depressive affect was not controlled, which, as Blaney noted, is problematic when personality variables are correlated with depression outcome measures. Indeed, Blaney reported that an unpublished replication of Zuroff and Mongrain's study conducted by his laboratory, in which those limitations were addressed, supported personality–event congruence and symptom specificity with self-criticism (Helleotes, Kutcher, & Blaney, 1998).

Using a similar imaginal stress-induction procedure to assess Beck's personality constructs, Allen, de L. Horne, and Trinder (1996) found that autonomy did not predict negative affect or physiological arousal in response to failure. However, the investigators did not assess symptom specificity and used a measure of generalized negative affect, which may not have adequately captured the specific affective changes associated with the autonomy construct.

Furthermore, while Helleotes et al.'s (1998) results are encouraging, scripted imaginal stress-induction paradigms such as those employed by Zuroff and Mongrain (1987) and Allen et al. (1996) may be limited in their ability to induce subjective experiences of failure in self-critical individuals. Theorists have speculated that self-critics may possess more adaptive and developmentally advanced coping skills than dependent individuals (Nietzel & Harris, 1990). Thus, it is possible that they are fairly resilient to mild or less personally relevant forms of stress induction. *In vivo* protocols in which individuals experience a personal sense of failure may provide a more powerful test of Blatt's hypotheses. For instance, Gruen and his colleagues (Gruen, Ehrlich, Silva, Schweitzer, & Friedhoff, 2000; Gruen, Silva, Ehrlich, Schweitzer, & Friedhoff, 1997) employed an induced-failure paradigm in which participants were led to believe they performed poorly on an achievement-related task. Although that research was not specifically designed to test personality–event congruence or symptom specificity, Gruen et al. (1997) found that self-criticism predicted posttest increases in subjective stress and negative affect, as well as stress-related biochemical alterations.

The present study is the first to employ an *in vivo* laboratory stress-induction paradigm to test the personality–event congruence and symptom specificity hypotheses with self-criticism. We exposed nonclinical participants to one of three conditions: an induced-failure stressor designed to activate achievement-related concerns (Gruen et al., 1997, 2000), an induced-success condition, or a control condition. The success condition was designed primarily to act as a control for the effects of participating in a cognitive task related to personal achievement, while the control condition was intended to control for the passage of time. Participants'

affective responses were assessed both immediately following the task and 24 hours later, and baseline depressive affect was controlled. Based on the theories and findings reviewed earlier, we predicted the following.

(1) *Personality–event congruence*. Self-criticism will moderate the relation between failure and mood. Specifically, self-criticism will interact with exposure to the failure stressor to predict increases in introjective depressive affect. Dependency will not moderate the aforementioned relation.
(2) *Symptom specificity*. The self-criticism by failure interaction will predict increases in introjective but not anaclitic depressive affect.

We were also interested in assessing the relation between self-criticism and introjective depressive affect 24 hours following the stressor. In addition, although Blatt's and Beck's theories do not highlight the role of personality–event congruence in the reduction of depressive symptoms, we explored whether self-criticism among participants in the success condition would be associated with a decrease in depressive affect.

METHOD

Participants

Participants were 125 New York University undergraduate and summer school students who received psychology subject pool credit for their participation. The sample included 79 females (63.2%) and 46 males (36.8%), and the average age was 19.42 ($SD = 2.01$). Sixty-four participants self-identified as Caucasian (51.2%), 34 as Asian (27.2%), 10 as African-American (8%), 11 as Latino (8.8%), and 6 as members of other ethnic groups (4.8%).

Participants who endorsed suicidality on Item #9 of the Beck Depression Inventory (Beck, Rush, Shaw, & Emery, 1979) were assessed for suicide risk, were provided with treatment referral information, and were excluded from the study because the failure condition manipulation was intended to induce some degree of psychological distress. One potential participant was excluded on this basis.

Instruments

Data on age, sex, race, and other demographic information were obtained using a standardized *Information Form*.

The *Beck Depression Inventory* (BDI; Beck et al., 1979) is a widely used, 21-item self-report measure of depressive symptoms experienced over the past week, which has demonstrated excellent reliability and validity in clinical and nonclinical samples (Beck, Steer, & Garbin, 1988). In this study, the BDI was used to screen out participants reporting suicidal ideation; the average BDI score in the sample was 10.05 ($SD = 7.33$).

The *Depressive Experiences Questionnaire* (DEQ; Blatt et al., 1976) is a 66-item self-report inventory designed to assess the personality dimensions of Dependency,

Self-Criticism, and Efficacy. Participants rated their response to each item on a 7-point scale ranging from "strongly disagree" (1) to "strongly agree" (7), and scores were calculated using the system developed by Welkowitz, Lish, and Bond (1985). The DEQ has shown high levels of predictive validity and internal consistency across diverse samples (Blatt et al., 1976; Blatt, Quinlan, & Chevron, 1990). The 15-item Self-Criticism scale and the 21-item Dependency scale were used in analyses.

The *Emotion Questionnaire* is a self-report measure that included scales developed by Zuroff and Mongrain (1987) to assess introjective and anaclitic depressive affect, as well as the Depression–Dejection subscale from the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971). Participants indicated the extent to which they experienced each item using 5-point scales that ranged from "not at all" (1) to "extremely" (5), and scales were scored by summing items. Introjective depressive affect was assessed with the following nine items: *worthless*, *blameworthy*, *self-critical*, *disgusted with self*, *dissatisfied with self*, *inferior*, *like a failure*, *unworthy*, and *guilty*. Anaclitic depressive affect was assessed with the following nine items: *neglected*, *unwanted*, *unloved*, *lonely*, *empty*, *uncared for*, *depleted*, *abandoned*, and *helpless*. The Introjective and Anaclitic scales have shown acceptable psychometric properties (Zuroff & Mongrain, 1987), and the Depression–Dejection scale has demonstrated strong internal consistency and validity (McNair et al., 1971). In this study, the Introjective and Anaclitic scales were employed as primary outcome measures.

Stress-induction methodology. The stress-induction procedure was adapted from a protocol developed in previous research (Gruen et al., 1997, 2000). Participants in the induced-failure and induced-success conditions were asked to solve problems presented in a series of slides and were told that the task was a standard test of intelligence and creativity. The slides were taken from Raven's Progressive Matrices (Raven, Court, & Raven, 1985), and the scoring of participants' responses was done on an *a priori* basis. Participants were given 15 seconds to solve each problem, and a buzzer was sounded when "incorrect" responses were given. The task lasted approximately 17 minutes.

Participants in the failure condition were told that they would be permitted to complete a second series of slides if they made no more than four mistakes in the first series and that 75% of participants had been able to do this successfully. Following administration of the test, participants were informed that they had responded incorrectly to seven of the slides, that they "did not do very well," and that they would be shown the slides they got wrong a second time. Participants were administered the "incorrect" items a second time and were told that, as they responded incorrectly again to six of these seven items, they would have to stop and would not be able to go on to the second slide series.

Participants in the success condition were given identical instructions, with two exceptions: they were informed they would be given a second slide series if they failed the first series and that only 20% of subjects were able to complete the first series successfully. Following administration of the test, they were informed that they "did very well," had made only four errors, and did not have to complete the second series.

Procedure

Each participant attended two research sessions. In the first session, participants completed a number of questionnaires, including the Information Form, BDI, DEQ, and baseline (Time 1) Emotion Questionnaire. They were subsequently exposed to one of three protocols: (1) the *induced-failure condition* described earlier, in which participants completed the test of intelligence and creativity and were told they performed poorly, (2) the *induced-success condition*, in which participants completed the same test but were told they performed very well, or (3) a *control condition*, in which participants were not given a test but were asked to sit quietly for an equivalent length of time and were given a book of nature scenes to look at in order to alleviate the stress associated with boredom. Immediately after exposure to the stressor, participants completed the posttest (Time 2) Emotion Questionnaire, in which they were asked to report on their emotions following exposure to the protocol. Participants in the control condition filled out the Time 2 Emotion Questionnaire at the same time point as participants in the other two conditions. All participants were then told to return for a second research session approximately 24 hours later to complete a similar task. During the second session, participants completed the follow-up (Time 3) Emotion Questionnaire assessing their emotions since the end of the experiment the previous day, after which they were fully debriefed.

The design of the study evolved from inclusion of only one condition (i.e., induced failure) to inclusion of a total of three conditions, based on our developing understanding of the complexities involved in the research. As a result, participants were not randomly assigned to test conditions. Participants recruited during the spring term completed the induced-failure protocol, those recruited during the summer session served as controls, and those recruited during the fall term completed the induced-success protocol. Analysis of variance models were tested to compare the three study conditions with respect to demographic and predictor variables, so that systematic differences among groups could be controlled in subsequent analyses.

RESULTS

Descriptive Analyses

Table I displays means and standard deviations for self-criticism, dependency, and both introjective and anaclitic affect at baseline and post-stress, as well as correlations among those variables. All variables were approximately normally distributed with the exception of post-stress (T2) anaclitic depressive affect, which was positively skewed (skew = 3, kurtosis = 12).[5] Due to missing data, measures of depressive affect at the 24 hr follow-up were only scored for 118 participants.

[5] A log transformation performed on post-stress anaclitic depressive symptoms served to bring the variable's skew and kurtosis within normal limits. Analyses were conducted with both the log-transformed and non-transformed versions of the variable. As the pattern of results obtained was consistent between the two versions, we chose to report results using the non-transformed variable for greater ease of interpretation.

Table I. Descriptive Data on Central Predictors and Outcome Variables at Baseline ($N = 125$)

	Self-criticism	Dependency	T1 introjective depression	T1 anaclitic depression	T2 introjective depression	T2 anaclitic depression
Self-criticism		.57**	.47**	.47**	.42**	.32**
Dependency			.35**	.42**	.28*	.26*
T1 introjective depression				.60**	.37**	.33**
T1 anaclitic depression					.39**	.65**
T2 introjective depression						.54**
Mean	3.87	4.46	13.27	12.97	12.12	11.23
SD	1.04	0.82	4.79	5.32	4.46	3.57
Cronbach α	.86	.80	.87	.87	.88	.81

Note. T1: Time 1 (baseline); T2: Time 2 (post-test).
*$p \leq .01$; **$p \leq .001$.

Bivariate relations of the independent and dependent variables with demographic variables (sex, race, and age) were computed using correlations, *t*-tests, and ANOVAs, as appropriate. No significant gender or race differences were found with respect to dependency, self-criticism, introjective depression, or anaclitic depression. Age was significantly associated with dependency ($r = -.21$, $p = .02$).

In order to assess for possible systematic differences among the groups, participants in the three conditions were compared with respect to demographic variables (age, sex, race), personality variables (self-criticism, dependency), and mood (baseline introjective depressive affect, anaclitic depressive affect, and BDI scores). The three groups did not differ with respect to any of the variables, except age, $F(2, 122) = 3.97, p = .02$. A Bonferroni post hoc comparison indicated that participants in the control condition were older than those in the success condition (mean difference = 1.05 years, $SE = 0.43$, $p = .04$). As a result, age was entered as a covariate in all subsequent analyses.

Manipulation Check

Post-Stress Depressive Affect

A one-way analysis of covariance (ANCOVA) model was estimated, in which the three-level independent variable was study condition, the two covariates were baseline introjective depressive affect and age, and the dependent variable was post-stress (Time 2) introjective depressive affect. The ANCOVA was significant, $F(2, 120) = 17.01$, $MSE = 13.11$, $p < .000$, and the strength of association between study condition and Time 2 introjective depressive affect was large, with condition accounting for 19% of the variance in depression. As predicted, the failure group had a larger Time 2 mean ($M = 15.13$) than the success group ($M = 10.28$) and control group ($M = 11.03$). Planned orthogonal Helmert contrasts indicated that the failure group reported significantly greater changes in introjective depressive affect than the averaged success and control groups (difference = 4.47, $p < .01$).

Depressive Affect at Follow-Up

The effects of study condition on introjective depressive affect 24 hours post-stress was assessed using the same ANCOVA model described earlier, except that Time 3 introjective depressive affect served as the dependent variable. No significant effect of study condition was obtained.

Hypothesis 1: Personality–Event Congruence

Post-Stress

A hierarchical regression model was estimated to test whether self-criticism moderated study condition in predicting increases in introjective depressive affect (see Table II). In Step 1, post-stress introjective depressive affect was regressed on two covariates (baseline introjective depressive affect and age), as well as DEQ self-criticism, DEQ dependency, and study condition (*failure*, *success*, or *control*, expressed as two dummy-coded variables). Self-criticism × Failure, Self-criticism × Success, Dependency × Failure, and Dependency × Success were entered in Step 2. An alpha level of $p < .05$ was used as the criterion for significance. As predicted, Self-criticism × Failure was significant, but the other interactions were not. Self-criticism among participants in the failure group predicted increases in introjective depressive affect, whereas self-criticism did not impact introjective depression scores for participants in the success and control groups.

Table II. Hierarchical Regression Analysis Predicting Post-Stress Changes in Introjective Depressive Affect ($N = 125$)

Variable	*B*	*SE B*	*r*	sr^2
Step 1				
Age	0.03	0.16	−.04	<.01
T1 introjective depression**	0.25	0.08	.37	.05
Self-criticism**	1.33	0.39	.42	.06
Dependency	−0.32	0.49	.28	<.01
Failure condition**	3.84	0.79	.45	.12
Success condition	−0.96	0.78	−.29	<.01
Step 2				
Age	0.12	0.15	−.04	<.01
T1 introjective depression*	0.22	0.07	.37	.04
Self-criticism	0.24	0.62	.42	<.01
Dependency	0.89	0.83	.28	<.01
Failure condition	−4.69	4.34	.45	<.01
Success condition	6.61	3.83	−.22	.01
Self-criticism × Failure**	3.07	0.86	.57	.05
Self-criticism × Success	−0.06	0.85	−.27	<.01
Dependency × Failure	−0.80	1.20	−.49	<.01
Dependency × Success	−1.74	1.05	−.29	.01

Note. For Step 1, adjusted $R^2 = .39$, $F(6, 118) = 14.46$, $p < .001$. For Step 2, adjusted $R^2 = .49$, $R^2\Delta = .11$, $F(4, 114) = 6.48$, $p < .001$. The three-level categorical variable *study condition* was dummy-coded as *failure condition* and *success condition*. T1: Time 1 (baseline); *B*: unstandardized beta; *SE B*: standard error of the unstandardized beta; *r*: Pearson's product–moment correlation coefficient; sr^2: squared semipartial correlation coefficient.
*$p < .01$; **$p \leq .001$.

Follow-Up

The same hierarchical regression model was estimated with introjective depressive affect 24 hours following the protocol (Time 3) serving as the dependent variable in place of post-stress (Time 2) introjective depressive affect. The set of variables entered in Step 1 was significantly associated with introjective depressive affect [adjusted $R^2 = .27$, $F(6, 111) = 8.10$, $p < .01$], but the addition of the interaction terms in Step 2 did not significantly improve the model's fit [$R^2\Delta = .03$, $F(4, 107) = 1.22$, $p = .31$]. The Self-criticism × Failure interaction, Dependency × Failure interaction, and success condition interaction terms were all nonsignificant.[6]

Hypothesis 2: Symptom Specificity

Post-Stress

A hierarchical regression model was estimated to test whether self-criticism moderated study condition in predicting changes in anaclitic depressive affect. The model was identical to the ones described earlier, except that the predictors were regressed on posttest anaclitic, rather than introjective, depressive affect, and baseline anaclitic depressive affect was entered as a covariate in place of baseline introjective depressive affect. The set of variables entered in Step 1 were significantly associated with anaclitic depressive affect [adjusted $R^2 = .43$, $F(6, 118) = 16.55$, $p < .01$]. As predicted, the addition of the interaction terms in Step 2 did not significantly improve the model's fit [$R^2\Delta = .03$, $F(4, 114) = 1.9$, $p = .12$], although the Self-criticism × Failure interaction ($B = 1.42$, $SE\ B = 0.72$, $p = .05$) and the Dependency × Success interaction ($B = -2.02$, $SE\ B = 0.88$, $p = .02$) were significant.

Follow-Up

A similar regression model was estimated using Time 3 anaclitic affect. The set of variables entered in Step 1 were significantly associated with anaclitic depressive affect [adjusted $R^2 = .35$, $F(6, 111) = 11.66$, $p < .01$]. As predicted, the inclusion of the interaction terms in Step 2 did not contribute significantly to the model's fit [$R^2\Delta = .05$, $F(4, 107) = 2.09$, $p = .09$], although the Dependency × Success interaction was significant ($B = -1.87$, $SE\ B = 0.82$, $p = .03$).[7]

[6]The Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978) has sometimes been used to assess distinct domains of personality vulnerability, although its constructs differ somewhat from self-criticism and dependency as measured by the DEQ. The DAS was administered at baseline in the current study, and we were interested to see whether similar results regarding personality–event congruence would be obtained if DAS subscales were used as predictors in place of the DEQ scales. We re-estimated the hierarchical regression models described in the main text using the DAS Performance Evaluation subscale in place of DEQ Self-criticism and the DAS Approval of Others subscale in place of DEQ Dependency. Consistent with the findings obtained in our primary analyses, the Performance Evaluation × Failure interaction predicted an increase in introjective depressive affect at the post-stress assessment ($B = 0.16$, $SE\ B = 0.07$, $p = .03$) but not at follow-up.

[7]We also assessed whether Self-criticism × Failure would predict increases in generalized depressive affect, as measured by the POMS Depression–Dejection scale. POMS Depression–Dejection scores were significantly correlated with introjective ($r = .79$) and anaclitic depression scores ($r = .79$) at posttest. The hierarchical regression analytic procedure described in the main text was employed, using POMS Depression–Dejection scores in place of introjective and anaclitic depression scores. The model

DISCUSSION

This study employed an induced-failure stressor to evaluate personality–event congruence and symptom specificity for self-criticism. Consistent with the personality–event congruence hypothesis, we found that self-criticism moderated the effects of achievement-related failure on introjective depressive affect, such that higher levels of self-criticism were associated with greater increases in introjective depressive affect in response to failure. Also as predicted, this moderation effect was not obtained for dependency.

Our findings with respect to the symptom specificity hypothesis were generally supportive but should be interpreted with caution. Contrary to prediction, self-criticism interacted with failure in the prediction of increased post-stress anaclitic depressive affect. However, the regression step within which that interaction was entered did not significantly predict variance in anaclitic affect above and beyond the mood, personality, and study condition variables of the initial regression step. Thus, the association between self-criticism and anaclitic affect in response to failure does not appear to be a robust one, although replication of this research would be desirable for determining the strength of that relation.

Our results differ in certain key respects from findings reported in the two previous published laboratory studies on this topic. Zuroff and Mongrain (1987) found that both DEQ self-critical and dependent participants reported similar levels of introjective depressive affect in response to an imaginal achievement-related stressor. In Allen et al.'s (1996) study, autonomy did not predict negative affect or physiological stress responses following an imaginal achievement-related stressor.

Methodological differences between those studies and the present one may account for differences in reported outcomes. First, our use of an *in vivo* stress-induction procedure may have offered certain advantages with respect to the impact and personal salience of the failure stressor. In addition, as mentioned previously, Zuroff and Mongrain's (1987) failure stressor incorporated interpersonal aspects that likely impaired their ability to assess Blatt's hypotheses with self-criticism (Blaney, 2000). In addition, baseline affect was not controlled in Zuroff and Mongrain's analyses, limiting conclusions that can be drawn about affective change as a result of stress. Furthermore, they measured the personality styles as categorical variables using cut-off scores, which reduces statistical power and can sometimes produce spurious effects (Maxwell & Delaney, 1993); this approach has also been criticized based on a lack of theoretical justification for creation of "pure" personality types (Coyne & Whiffen, 1995).

It is more difficult to compare Allen et al.'s (1996) findings with those in the present study, given theoretical and psychometric differences between the

provided a reasonably good fit to the data in Step 1. No significant interaction effects were obtained for self-criticism, but dependency moderated exposure to success in predicting a decrease in post-stress Depression–Dejection scores ($B = -3.38$, $SE\ B = 1.42$, $p = .02$). Findings were similar when POMS Depression–Dejection scores at follow-up were used as the outcome, although the set of interactions entered in Step 2 did not contribute significantly to the model's fit. Thus, the Self-criticism × Failure interaction we obtained using an outcome measure that specifically assessed Blatt's depressive styles was not replicated using a generalized measure of depressive affect.

autonomy and self-criticism constructs. However, Allen et al.'s use of a measure of generalized negative affect may have limited their ability to obtain effects. Measures that do not tap the introjective depressive state (or Beck's proposed symptoms, in the case of autonomy) may not be sufficiently sensitive to the affective changes that occur in self-critical or autonomous individuals as a result of achievement-related stress. Indeed, our secondary analyses using the POMS Depression–Dejection scale did not produce a significant self-criticism by failure interaction (see footnote 4). Failure to verify the personality–event congruence hypothesis in naturalistic studies with self-criticism may derive in part from use of affect outcome measures that do not adequately assess the introjective state.

Our findings are more consistent with the replication of Zuroff and Mongrain's (1987) study described by Blaney (2000), in which the failure stress-induction script was modified to remove interpersonal elements, baseline depressive affect was controlled, and the revised Attitudes toward Self (ATS-R) was used in place of the DEQ. Like Blaney's reported outcomes, the present study lends support to the validity of Blatt's congruence hypothesis, although Blaney's findings with respect to symptom specificity appear to have been more robust than those in the present study. Taken together, these studies suggest that modifications in the assessment of self-criticism, achievement-related stress, and introjective depressive affect may be instrumental in producing predicted findings. Variability in previous naturalistic studies may derive in large part from problematic measures of those variables. By contrast, the effects of dependency may be more robust and enduring despite those methodological limitations, due perhaps to dependent individuals' greater sensitivity to rejection or less effective coping strategies (Nietzel & Harris, 1990).

However, it is also important to note that our study provided only a partial test of personality–event congruence, as participants were not exposed to stress involving rejection. Thus, our results do not address the question of whether self-criticism would have displayed a nonspecific pattern of response by interacting with both a congruent stressor (failure) and a non-congruent stressor (rejection). For instance, Zuroff and Mongrain (1987) reported that self-criticism predicted depressive affect in response to both achievement and interpersonal stress. Future studies incorporating an induced-rejection task within the present stress-induction paradigm would be beneficial in this regard.

In contrast to our post-stress results, we did not find support for either personality–event congruence or symptom specificity at the 24 hours follow-up assessment. It is likely that the induced-failure manipulation was not sufficiently stressful or personally salient to impact participants' mood for an extended length of time. Results may have been different using a more stressful manipulation and/or a clinical participant sample. Our findings indicate that while achievement-related stressors increase depressive affect, particularly for self-critical individuals, nonclinical undergraduates likely have sufficient coping resources to return to affective baseline within a brief time period. This study did not assess possible coping and resiliency factors that might mitigate against continued depressive affect. Such factors are worth exploring in future studies of diathesis-stress models of depression.

Also of note, self-criticism did not interact with the success paradigm to predict a decrease in introjective depressive affect. Although neither Blatt's nor Beck's

formulations specified that reductions in depressive affect would occur as a result of congruent positive life events, theorists such as Blaney (2000) have speculated about such effects. One potential implication of our finding is that self-critics may be prone to suffer feelings of defeat and inferiority when they fail but may not experience compensatory relief from depressive mood when they succeed. Future studies that assess increases in positive affect following success would contribute further to our understanding of this issue. Our finding that dependency interacted with success to predict a decrease in anaclitic depressive affect is intriguing in this context, although the result must be interpreted with caution given that the overall regression step was nonsignificant. Further research is needed to examine whether dependent individuals are more affectively responsive than self-critical individuals to success experiences.

This study has certain limitations. Most notably, participants were not randomly assigned to study conditions. Given the quasi-experimental design, our results must be interpreted with caution. Analyses indicated that the three groups did not differ with respect to any of the demographic or predictor variables, with the exception of age, which was controlled in all subsequent analyses. However, it is possible that our findings were influenced by systematic group differences that were not assessed or controlled. Second, as we used a nonclinical undergraduate sample, our results cannot be presumed to generalize to clinical or community populations. Third, while a laboratory stress manipulation procedure offers certain advantages, it cannot be presumed to generalize to non-laboratory settings.

In summary, our findings are generally supportive of theoretical formulations concerning the role of self-criticism in generating depressive affect. Taken together, this study and research by Gruen and his colleagues (Gruen et al., 1997, 2000) suggest that an *in vivo* laboratory paradigm involving negative feedback on a performance-based task results in increased negative affect and is a promising technique for research on vulnerability to depression. Future research using this or similar stress manipulation protocols with community and clinical samples would be helpful in expanding our understanding of the diathesis-stress model with self-criticism. In addition, studies that assess potential mediators, such as negative automatic thoughts, would be beneficial in clarifying the mechanisms by which personality vulnerability factors may heighten depressive affect.

ACKNOWLEDGMENTS

We thank John E. Perez for providing statistical consultation and editorial comments, Kevin L. Delucchi and Kevin P. Weinfurt for additional statistical advice, and Catrin Jensen for her help with data entry.

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