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Relations of Self-Criticism and Dependency to Depressive Symptomatology: Tests of Blatt's and Greenberg and Watson's Theories

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RELATIONS OF SELF-CRITICISM AND DEPENDENCY TO

DEPRESSIVE SYMPTOMATOLOGY:

TESTS OF BLATT'S AND

GREENBERG AND WATSON'S THEORIES

by

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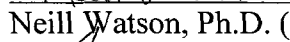
A Dissertation Submitted to the Faculties of The College of William and Mary,
Eastern Virginia Medical School, Norfolk State University, and
Old Dominion University in Partial Fulfillment of the Requirement for the Degree of

DOCTOR OF PSYCHOLOGY

CLINICAL PSYCHOLOGY

VIRGINIA CONSORTIUM PROGRAM IN CLINICAL PSYCHOLOGY
August 2011

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ABSTRACT

RELATIONS OF SELF-CRITICISM AND DEPENDENCY TO
DEPRESSIVE SYMPTOMATOLOGY:
TESTS OF BLATT'S AND
GREENBERG AND WATSON'S THEORIES

David Canose
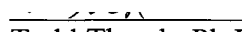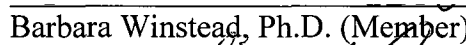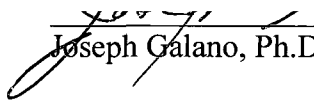The Virginia Consortium Program in Clinical Psychology
Director: Dr. Neill Watson

Two competing sets of hypotheses about the relations of self-criticism and dependency to

depressive symptomatology were tested. Blatt's theory (1974, 2004) states that self-

criticism and dependency are separate and distinct personality traits that predispose

individuals to depression. Hypotheses from Blatt's theory were that self-criticism and

dependency each explain unique variance in depressive symptomatology beyond that

explained by the other. In contrast, Greenberg and Watson (2006) theorize that

dependency underlies self-criticism in predisposing individuals to depression.

Hypotheses from Greenberg and Watson's theory were that self-criticism and

dependency are both correlated with depressive symptomatology, that self-criticism is

correlated with dependency, that self-criticism explains unique variance in depressive

symptomatology beyond that explained by dependency, and that dependency becomes a

nonsignificant predictor of depressive symptomatology when controlling for self-

criticism. A sample of 154 female and 142 male undergraduates completed the

Depressive Experiences Questionnaire, which assesses self-criticism and dependency,

and completed the Beck Depression Inventory-II 10 weeks later. Preliminary analyses

indicated that the dependency construct should be measured with the Neediness subfactor

of the DEQ Dependency measure and that there were no gender interactions in tests of

the hypotheses. Results supported all of the hypotheses based on Greenberg and

Watson's theory and did not support Blatt's hypothesis that dependency explains unique

variance in depressive symptomatology beyond that explained by self-criticism.

Limitations of the present study and its implications for future research are discussed.

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To my parents, for their encouragement from the time of my first homework assignments.

ACKNOWLEDGMENTS

This dissertation actually began during my first weeks in the Virginia Consortium Program, when I met Dr. Neill Watson during orientation. He generously introduced me to his research program and found a role for me within it. This dissertation would not have happened without his sure and steady guidance, and I am most grateful for it. Thank you.

I would also like to thank my parents, Jeffrey and Kathy Canose, who have listened patiently as I updated them on my progress throughout graduate school and life in Virginia. Although my decision to enter a graduate program in clinical psychology reflects a very genuine interest in the subject, my parents directed my first steps down this path by teaching me at a young age about hard work, service, and kindness. Thank you.

I would also like to thank Stacie Wilson, who always helped me to laugh about the tidal wave of challenges that graduate school requires one to find a way to withstand. Stacie has been a wonderful friend. In fact, she has been my best friend, and I cannot imagine a career in clinical psychology without her as a colleague. Thank you.

I am also very grateful to Drs. Zeman, Winstead, Thrash, and Galano for their contributions to this process. You said yes when you did not have to, and your generosity with your time and energy has paved the way for my and so many other students' successes. Thank you.

Finally, I would like to thank all of my supervisors from various practicum sites and on internship. All of your feedback and encouragement over the years has guided my

growth as a young clinician, and I am very grateful for your role in my education. Thank you.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Research concerning personality predispositions as vulnerabilities to depression

has been conducted from different theoretical perspectives (e.g., Beck, 1983; Blatt, 1974,

2004; Greenberg & Watson, 2006). Blatt (1974, 2004) developed a psychoanalytic theory

of subclinical and clinical manifestations of depression that featured two separate and

distinct personality predispositions: self-criticism and dependency. Beck (1983)

augmented his cognitive theory of depression with consideration of the personality

predispositions of autonomy and sociotropy, which are conceptually and operationally

distinct from self-criticism and dependency (Blaney & Kutcher, 1991; Zuroff, 1994).

Greenberg and Watson (2006), coming from an emotion-focused perspective, challenged

Blatt's theory, theorizing that dependency underlies self-criticism in predisposing an

individual to depression. The present study tested contrasting hypotheses regarding the

relations of self-criticism and dependency to depressive symptomatology[1] based on the

theories of Blatt and of Greenberg and Watson.

Blatt's Theory

Blatt (1974, 2004) theorized that individuals' early object-relations are the basis

for self-criticism and dependency, which, in turn, predispose individuals to depression.

High self-criticism predisposes individuals to introjective depression. Introjective

depression involves experiences of failure (real or perceived); feelings of guilt, shame,

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[1] The present study concerns depressive symptomatology measured with the BDI-II (Beck, Steer, & Brown, 1996) and not clinical diagnoses of major depression or another mood disorder. The term *depression* is reserved herein for descriptions of Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories, descriptions of previous research in which participants were diagnosed with a depressive disorder (e.g., Riley & McCranie, 1990) or that included the onset of major depression as a variable in data analyses (Cogswell, Alloy, & Spasojevic, 2006), and conjecture about future research concerning depression.

incompetence, and worthlessness; lofty expectations; and attempts to win others'

approval. In contrast, high dependency predisposes individuals to anaclitic depression.

Anaclitic depression involves experiences of turbulence in interpersonal relationships

(real or perceived); fears of abandonment; feelings of helplessness and loneliness; and

attempts to perpetuate others' love and assurance. In sum, according to Blatt's theory,

self-criticism and dependency are separate and distinct personality traits that each

predispose individuals to depression.[2]

Greenberg and Watson's Theory

An alternative theory concerning the relations of self-criticism and dependency to

depression has emerged in the literature. Greenberg and Watson (2006), in their review of

research on emotion-focused theory and treatment of depression, considered Blatt's

distinction between anaclitic and introjective depression. The sole study that Greenberg

and Watson cited (Kagan, 2003, as cited in Greenberg & Watson, 2006), however,

suggested that introjective depression has anaclitic underpinnings; that is, self-criticism is

a way that individuals cope with dependency-related concerns. In contrast to Blatt's

(1974, 2004) theory, Greenberg and Watson's theory suggests that dependency underlies

self-criticism in predisposing an individual to depression.[3] Tests of the contrasting

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[2] Blatt's (2004) overview of his theory of anaclitic and introjective depression contains expansive use of terminology that, at times, threatens to compromise the specificity of the theory. For example, Blatt initially refers to "two types of depressive experiences" and "two types of depression" (p. 7); however, he later refers to an "anaclitic personality" (p. 47) and "a distinction between the personal qualities, psychological experiences, and life events that characterize an anaclitic (dependent) depression and those that characterize an introjective (self-critical) depression" (p. 95). He explicitly characterizes anaclitic and introjective depression, however, as "fundamentally different" (p. 13); in addition, he notes that "although these two types of depression may be interrelated and on a continuum, a simple, dependent anaclitic depression can be differentiated from a more complex introjective depression" (p. 29). The latter aspects of his theory are central to the hypotheses tested in the present investigation.

[3] Greenberg and Watson's (2006) challenge is aimed primarily at Blatt's (2004) notion of introjective depression. With regard to their critique of Blatt's theory, their views of the relationship between dependency and depression in the absence of self-criticism are not fully articulated.

hypotheses based on Blatt's theory and Greenberg and Watson's theory were conducted in the present study.

Tests of Blatt's Theory

The dependency and self-criticism constructs described by Blatt have been operationalized with Blatt and colleagues' Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976). The DEQ provides Self-Criticism and Dependency factor scores. The measurement of dependency with the DEQ, however, is more nuanced than for self-criticism; scores for two subfactors of Dependency, Neediness and Connectedness, can be considered along with the total Dependency score (Rude & Burnham, 1995). An individual's Neediness score indicates their level of anxiety about potential rejection. The Connectedness score, in contrast, indicates the degree to which an individual values interpersonal connection and is attuned to how his or her actions are received by others. Research with the Self-Criticism and Dependency factors and the Neediness and Connectedness subfactors is reviewed below. The review will specify whether the total Dependency score and/or the Neediness and Connectedness scores were used as measures of dependency.

Blatt's theory (1974, 2004) predicts that self-criticism and dependency each will explain unique variance in depressive symptomatology beyond that explained by the other. Research guided by Blatt's theory is replete with studies reporting bivariate correlations of the measures of self-criticism and dependency to measures of depressive symptomatology. I located 15 studies that used only the Self-Criticism and total Dependency scores in their correlational analyses. Five of the studies used only a clinical sample; nine used clinical measures with only a nonclinical sample; one had both a

clinical and a nonclinical sample. Self-criticism and dependency were both significantly positively correlated with depressive symptomatology in two of the five studies with only clinical samples (Lehman et al., 1997; Klein, 1989) and for one of two measures of depressive symptomatology in another study with a clinical sample (Riley & McCranie, 1990). Both personality predispositions were also significantly positively correlated with depressive symptomatology in five of the nine studies that used clinical measures with only nonclinical samples (Brewin & Firth-Cozens, 1997; Fuhr & Shean, 1992; Mongrain, Lubbers, & Struthers, 2004; Reis & Grenyer, 2002; Zuroff, Igreja, & Mongrain, 1990). The one study that had both a clinical and a nonclinical sample found that self-criticism and dependency were significantly positively correlated with depressive symptomatology in both samples (Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982). In addition, six other studies found that only self-criticism was significantly positively correlated with depressive symptomatology: two of the five with clinical samples (Klein, Harding, Taylor, & Dickstein, 1988; Rector, Bagby, Segal, Joffe, & Levitt, 2000) and four of the nine using clinical measures with only nonclinical samples (Fazaa & Page, 2003; Mongrain & Zuroff, 1989; Priel & Besser, 1999; Smith, O'Keeffe, & Jenkins, 1988). Taken together, these findings suggest that self-criticism is more consistently related to depressive symptomatology than dependency (Nietzel & Harris, 1990; Zuroff, Quinlan, & Blatt, 1990).

Among the group of studies that found that self-criticism and dependency were both significantly positively correlated with depressive symptomatology, three demonstrated some significant correlations over a longitudinal timeframe (Brewin & Firth-Cozens, 1997; Klein, 1989; Mongrain et al., 2004) while another study did not

(Klein et al., 1988). Brewin and Firth-Cozens (1997) collected data from three time-points over 10 years and found that Self-Criticism and total Dependency, assessed with an abbreviated version of the DEQ, at Times 1 and 2 were significantly correlated with depressive symptomatology at Times 1, 2, and 3 except for a nonsignificant correlation between Time 1 depressive symptomatology and Time 2 total Dependency. Klein (1989) found that, for men, Self-Criticism and total Dependency were not correlated with scores on two six-month, follow-up measures of depressive symptomatology; for women, total Dependency was significantly correlated with both follow-up measures and Self-Criticism was significantly correlated with one. Mongrain et al. (2004) collected data at three time-points over an academic year and found that both Self-Criticism and total Dependency at Time 1 were significantly correlated with Times 2 and 3 depressive symptomatology. Klein et al. (1988) found that neither Self-Criticism nor total Dependency was significantly correlated with follow-up measures of depressive symptomatology in their study. Finally, among the studies that found that only self-criticism was significantly positively correlated with depressive symptomatology, one demonstrated the association over a longitudinal timeframe (Priel & Besser, 1999).

Fourteen of the 15 studies cited above reported only bivariate correlations. Such correlations do not provide evidence of the unique contributions of self-criticism and dependency to depression that Blatt theorized. In other words, the significant bivariate correlations noted above established that there are relationships between the constructs of self-criticism and dependency and measures of depressive symptomatology, but they did not establish that those relationships are unique. Partial correlations and/or multiple regression analyses provide more thorough tests of Blatt's theory.

The sole study that reported both bivariate and partial correlations found only partial support for Blatt's theory (Riley & McCranie, 1990). In particular, bivariate correlations revealed that self-criticism and dependency were both significantly positively associated with two measures of depressive symptomatology only for women; for men, self-criticism was significantly positively correlated with one of the two measures of depressive symptomatology while dependency was not correlated with either. Partial correlations computed with the data collected from women revealed that only self-criticism was uniquely related to both measures of depressive symptomatology; that is, dependency was not associated with either measure of depressive symptomatology when controlling for self-criticism. Partial correlations were computed for only the women in the study; the researchers reasoned that since self-criticism and dependency were significantly associated with each other among women but not among men, the bivariate correlations for men were sufficient tests of the relations of the constructs to depressive symptomatology. This study demonstrates the importance of considering gender differences in thorough tests of Blatt's theory.

The same fundamental critique above of the bivariate correlational analyses is also applicable to between-groups analyses from six studies that compared the mean Self-Criticism and Dependency scores of depressed (i.e., diagnosed with a depressive disorder) patient groups to those for control groups (Bagby, Schuller, Parker, Levitt, Joffe, & Shafir, 1994; Franche & Dobson, 1992; Klein et al., 1988; Lehman et al., 1997; Luyten et al., 2007; Rosenfarb, Becker, Khan, & Mintz, 1998). Five of the studies found elevated mean Self-Criticism and Dependency scores among depressed patients compared to controls (Bagby et al., 1994; Franche & Dobson, 1992; Klein et al., 1988;

Luyten et al., 2007; Rosenfarb et al., 1998). One study found elevated mean Self-Criticism and Dependency scores among depressed inpatients compared to controls but only elevated mean Self-Criticism scores among depressed outpatients compared to controls (Lehman et al., 1997). None of these six studies controlled for the alternate personality predisposition when comparing the mean Self-Criticism or Dependency scores of the patient and control groups (i.e., the studies did not control for Self-Criticism scores when comparing the groups' mean Dependency scores and vice versa). Although this group of studies linked elevated levels of self-criticism and dependency to depression, they did not establish unique relationships between the predispositions and depression.

Hypotheses based on Blatt's (1974, 2004) theory have also been tested with multiple regression analyses. As with the correlational analyses above, multiple regression analyses across studies have varied in the degree to which they have thoroughly tested Blatt's theory. In order to determine the independent contributions of self-criticism and dependency to depressive symptomatology, multiple regression analyses must be conducted such that the relationship of each construct with depressive symptomatology is examined while controlling for the other construct. Multiple regression analyses from several studies that used the Self-Criticism and total Dependency scores have not offered such a thorough test (e.g., Abu-Kaf & Priel, 2008; Brewin & Firth-Cozens, 1997; Smith et al., 1988). For example, Abu-Kaf and Priel (2008) found that self-criticism predicted variance in depressive symptomatology beyond dependency in their nonclinical sample, yet the order in which self-criticism and dependency were entered into their regression model (i.e., dependency on the step prior

to self-criticism) did not permit an analysis of whether dependency would explain variance in depressive symptomatology beyond self-criticism. In two other studies' multiple regression analyses (Brewin & Firth-Cozens, 1997; Smith et al., 1988), self-criticism and dependency were not entered into the same regression equation; as such, the association of either variable with depressive symptomatology was not examined while controlling for the other variable.

Of the analyses from the 20 studies included in the review thus far (i.e., those reporting the results of correlational, multiple regression, and/or between-groups analyses), all of which used the total Dependency score, only two analyses (Abu-Kaf & Priel, 2008; Riley & McCranie, 1990) yielded evidence that self-criticism explained unique variance in depressive symptomatology beyond dependency; in one of these two analyses, this result was found among only the women in the study (Riley & McCranie, 1990). None of the studies indicated that dependency explained unique variance in depressive symptomatology beyond self-criticism. Blatt (1974, 2004) theorized that self-criticism and dependency are separate and distinct predispositions to depression. As such, a thorough test of Blatt's theory would include statistical methods that analyze the separate and distinct contributions of self-criticism and dependency to depressive symptomatology. Of the analyses reviewed above, all but one failed to go far enough in providing such a thorough test.

Three studies using multiple regression analyses and Self-Criticism and total Dependency scores provided thorough tests of Blatt's (1974, 2004) theory (Luyten et al., 2007; Mongrain et al., 2004; Priel & Besser, 1999). Luyten et al. (2007), using a clinical sample and clinical measures with nonclinical samples, found that Self-Criticism and

total Dependency each explained unique variance for two out of three measures of depressive symptomatology for their clinical sample and for all three measures of depressive symptomatology for their nonclinical samples. Two other studies used data collected over a longitudinal timeframe (Mongrain et al., 2004; Priel & Besser, 1999). Analyses with longitudinal data have the potential to provide more vigorous support for Blatt's theory (Nietzel & Harris, 1990). Priel and Besser (1999), investigating the constructs of interest in a sample of pregnant women, found that self-criticism and dependency prior to giving birth were significant predictors of postpartum depressive symptomatology. Although self-criticism was a significant, positive predictor of postpartum depressive symptomatology, dependency, contrary to Blatt's theory, was a significant, negative predictor. Mongrain et al. (2004), collecting data from a sample of students, found that self-criticism and dependency assessed early in an academic year each predicted unique variance beyond the other in mid-year depressive symptomatology. Only dependency, however, was uniquely associated with end-of-the-year depressive symptomatology.

Neediness and Connectedness

Other studies that have tested Blatt's (1974, 2004) theory used the Neediness and Connectedness subfactor scores as measures of the dependency construct (Bacchiochi, Bagby, Cristi, & Watson, 2003; Besser & Priel, 2005; Cogswell et al., 2006; Dunkley, Blankstein, Zuroff, Lecce, & Hui, 2006; McBride, Zuroff, Bacchiochi, & Bagby, 2006; Rude & Burnham, 1995). The Neediness subfactor score, as previously noted, indicates an individual's level of anxiety about potential rejection. In contrast, the Connectedness subfactor score is indicative of the degree to which an individual values interpersonal

connection and is attuned to how his or her actions are received by others (Rude &

Burnham, 1995). Blatt, Quinlan, Zuroff, and Mongrain (1995) identified two different

subfactors of Dependency: Anaclitic Dependency and Relatedness. The majority of the

incipient research with subfactors of Dependency, however, has used Neediness and

Connectedness (Bacchiochi et al., 2003; Besser & Priel, 2005; Cogswell, et al., 2006;

Dunkley, Blankstein et al., 2006; McBride et al., 2006; Rude & Burnham, 1995). As with

the studies that used only the total Dependency score, studies that used the Neediness and

Connectedness subfactors as measures of dependency differ in the degree to which they

have thoroughly tested Blatt's theory.

The present literature review revealed six studies that have used the Neediness

and Connectedness subfactors as measures of dependency (Bacchiochi et al., 2003;

Besser & Priel, 2005; Cogswell et al., 2006; Dunkley, Blankstein et al., 2006; McBride et

al., 2006; Rude & Burnham, 1995). The results of the studies have been mixed. One

study that used clinical measures with a nonclinical sample found that only Neediness

was significantly positively correlated with depressive symptomatology (Rude &

Burnham, 1995). In contrast, a study with a clinical sample found that only

Connectedness was significantly positively associated with depressive symptomatology

(Bacchiochi et al., 2003). These two studies reported only bivariate correlations in their

results. Such correlations do not provide evidence of the unique contributions of

Neediness and Connectedness to depressive symptomatology. Another study that used

clinical measures with a nonclinical sample (Dunkley et al., 2006) found that both

Neediness and Connectedness were significantly positively correlated with depressive

symptomatology. Further, regression analyses revealed that Neediness and

Connectedness did not predict depressive symptomatology when controlling for neuroticism; these regression analyses, however, were conducted separately for Neediness and Connectedness. Partial correlations or multiple regression analyses that assess the incremental validities of the subfactors could provide a more thorough test of the relations of the subfactors to depressive symptomatology. Another study that used clinical measures with a nonclinical sample reported both bivariate and partial correlations (McBride et al., 2006). While the bivariate correlations in this study indicated that both Neediness and Connectedness were uniquely and positively related to depressive symptomatology, the partial correlations revealed that only Neediness was uniquely and positively related to depressive symptomatology. This study also had a clinical sample, and bivariate correlations indicated that neither subfactor was significantly associated with depressive symptomatology in this sample; partial correlations, however, were not reported for this sample. Another study examined the relations of Neediness, Connectedness, and the total Dependency scores to the onset of major depressive episodes over a longitudinal timeframe (Cogswell et al., 2006). This study, which used clinical measures with a nonclinical student sample, found that Neediness scores, but not Connectedness or total Dependency scores, predicted the onset of major depressive episodes over two and a half years in a logistic regression; the association became marginally significant when scores on a measure of depressive symptomatology from the same time-point as the assessment of Neediness were controlled.

The absence of the Self-Criticism factor in five of the six studies that used the Neediness and Connectedness scores as measures of dependency undercuts thorough tests

of hypotheses based on Blatt's theory. Only one of the six studies, using clinical measures with a nonclinical sample, examined the relations of the Self-Criticism, Neediness, and Connectedness scores to depressive symptomatology (Besser & Priel, 2005). The study found significant, positive bivariate correlations between Neediness and depressive symptomatology and between Self-Criticism and depressive symptomatology; Connectedness was not significantly correlated with depressive symptomatology. A multiple regression analysis revealed that both Self-Criticism and Neediness independently contributed to depressive symptomatology. Thus, the results are consonant with Blatt's theory, but the findings must be replicated, preferably over a longitudinal timeframe.

In summary, findings from the six studies using the Neediness and Connectedness subfactors cited above have been mixed. In light of these inconclusive findings, the present study tested the incremental validities of total Dependency, the Neediness and Connectedness subfactors, and Self-Criticism in predicting depressive symptomatology.

Summary of Research on Blatt's Theory

Overall, among the 20 studies I located that used the Self-Criticism and total Dependency scores in correlational, multiple regression, and/or between-groups analyses, only four provided thorough tests of Blatt's (1974, 2004) theory (Luyten et al., 2004; Mongrain et al., 2004; Priel & Besser, 1999; Riley & McCranie, 1990). Two of those studies found some evidence that both self-criticism and dependency each explained unique variance in depressive symptomatology beyond the other (Luyten et al., 2007; Mongrain et al., 2004). Two other studies partially supported Blatt's theory with results indicating that self-criticism explained unique variance in depressive symptomatology

beyond dependency among women (Priel & Besser, 1999; Riley & McCranie, 1990).

One of those studies, however, also found that dependency was a negative predictor of

postpartum depressive symptomatology (Priel & Besser, 1999), contradicting Blatt's

theory. Finally, the remaining studies did not go far enough in their statistical methods to

demonstrate the incremental validity of self-criticism and/or dependency in the prediction

of depressive symptomatology. Overall, this review indicates mixed support for Blatt's

theory that self-criticism and dependency are separate and distinct predispositions to

depression. The present study thoroughly tested Blatt's theory with correlational and

multiple regression analyses of longitudinal data; in doing so, the study is poised to

augment conclusions about existing literature on Blatt's theory.

Alternative Theories

Beck (1983) also referred to self-criticism and dependency in his theory of

personality predispositions as vulnerabilities to depression. The constructs are less

distinct, however, than they are in Blatt's (1974, 2004) theory. Beck incorporated self-

criticism and dependency into constructs that he termed autonomy and sociotropy.

According to Beck, autonomy and sociotropy are separate and distinct traits that

predispose individuals to depression. Autonomy involves high standards and

interpersonal distance. Sociotropy refers to concerns about rejection and abandonment

and a need for reassurance. Although Beck's autonomy and sociotropy constructs share

some similarities with Blatt's self-criticism and dependency constructs, there are key

theoretical and operational distinctions (Bagby, Parker, Joffe, Schuller, & Gilchrist, 1998;

Blaney & Kutcher, 1991; Zuroff, 1994). For example, Beck's descriptions of sociotropy

and autonomy both incorporated self-criticism: "the autonomous type blames himself for

'inadequate' performance and failures; the socially dependent, for being rejected and isolated" (Beck, 1983, p. 27). In addition, one of the subfactors of Sociotropy, as assessed by the Revised Sociotropy-Autonomy Scale (Clark & Beck, 1991), is Concern About Disapproval. Zuroff (1994) judiciously recalled that a desire to win others' approval is, in Blatt's (1974, 2004) theory, an aspect of introjective, or self-critical, depression. Furthermore, a confirmatory factor analysis of another measure of sociotropy and autonomy, the Revised Personal Style Inventory (Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994), found that Perfectionism/Self-Criticism, thought to be a subfactor of Autonomy, was equivalently linked to both Sociotropy and Autonomy (Bagby et al., 1998). In light of the theoretical and operational distinctions between Beck's and Blatt's formulations, citing research on the autonomy and sociotropy constructs as support for hypotheses concerning the relations of self-criticism and dependency to depression (e.g., Blatt, 2004) is questionable.

Blatt's (1974, 2004) descriptions of the self-criticism and dependency constructs also share some similarities with the Need For Approval and Perfectionism subfactors of the Dysfunctional Attitudes Scale (Cane, Olinger, Gotlib, & Kuiper, 1986; Oliver & Baumgart, 1985), but again there are key distinctions. Although Blatt (2004) suggested that the Need For Approval subfactor assesses an aspect of anaclitic, or dependency-based, depression and the Perfectionism subfactor measures an aspect of introjective, or self-criticism-based, depression, this position is at odds with his description of the self-criticism construct, which includes the desire to win others' approval (Zuroff, 1994). As such, citing research with the DAS subfactors as support for Blatt's theory that self-

criticism and dependency are separate and distinct traits that predispose individuals to depression (e.g., Blatt, 2004) is also questionable.

The present review features studies that examine only the relations of self-criticism and dependency to depressive symptomatology. Given the theoretical and operational distinctions between Blatt's (1974, 2004) and Beck's (1983) constructs (Blaney & Kutcher, 1991; Zuroff, 1994), research on the relations of the autonomy and sociotropy constructs is not able to either confirm or disconfirm the specific hypothesis that self-criticism and dependency each explain unique variance in depressive symptomatology. Research on the relations of sociotropy and autonomy to depression, however, might be cited along with research guided by Blatt's theory in support of the broader argument that problems with relatedness and self-definition are important in the study of depression (e.g., Blatt, 2004; Blatt & Zuroff, 1992; Zuroff, Mongrain & Santor, 2004). Although the present study tested the hypotheses of researchers from different theoretical backgrounds (i.e., psychoanalytic and emotion-focused), the contrasting hypotheses based on Blatt's (1974, 2004) theory and on Greenberg and Watson's (2006) theory are specific to the relations of the self-criticism and dependency constructs to depressive symptomatology.

Greenberg and Watson (2006), in a challenge to Blatt's theory of depression, theorized that dependency underlies self-criticism in predisposing individuals to depression. In Greenberg and Watson's theory, the self-criticism that leads to introjective depression is a means by which individuals cope with dependency. Bryan, Watson, Babel, and Thrash (2008) interpreted Greenberg and Watson's theory in terms of the relative experiential salience of self-criticism and dependency. In particular, Bryan et al.

suggested that, in introjective depression, self-criticism is more experientially salient while the dependency-related concerns underlying the self-criticism are less experientially salient. Thus, self-criticism, since it is more experientially salient, should have incremental validity beyond dependency in predicting depressive symptomatology.

Taken together, Greenberg and Watson's (2006) theory and Bryan et al.'s (2008) interpretation of that theory predict that self-criticism and dependency each will be correlated with depressive symptomatology, that self-criticism will be correlated with dependency, self-criticism will explain unique variance in depressive symptomatology beyond that explained by dependency, and that dependency will become a nonsignificant predictor of depressive symptomatology when controlling for self-criticism.

There is very limited empirical support for Greenberg and Watson's (2006) theory that dependency underlies self-criticism in predisposing individuals to depression. Greenberg and Watson cited only a qualitative study with a sample of clients being treated for depression with emotion-focused therapy. As clients with high self-criticism progressed in therapy, dependency-related concerns (e.g., wanting to be loved) underlying the self-criticism became experientially salient (Kagan, 2003, as cited in Greenberg & Watson, 2006). That qualitative study, however, does not provide a thorough test of the hypotheses based on Greenberg and Watson's theory. As with the research on Blatt's theory, a thorough test of the alternative hypotheses necessitates partial correlations and/or multiple regression analyses that spotlight the unique contributions of self-criticism and dependency to depressive symptomatology.

There is support for Greenberg and Watson's (2006) theory in one study that used the Self-Criticism and total Dependency scores from Blatt and colleagues' Depressive

Experiences Questionnaire. Riley and McCranie (1990), collecting data from a clinical sample, found that, among women, self-criticism and dependency were both significantly positively correlated with two measures of depressive symptomatology; for men, self-criticism was significantly positively correlated with one measure of depressive symptomatology whereas dependency was not correlated with either. Partial correlations computed with the data collected from women revealed that only self-criticism was uniquely related to the two measures of depressive symptomatology; that is, dependency was not associated with either measure of depressive symptomatology when controlling for self-criticism. The researchers did not compute partial correlations for men; their rationale for not computing partial correlations was that self-criticism and dependency were not correlated with each other among men.

Four studies that thoroughly tested Blatt's (1974, 2004) theory with multiple regression analyses, however, do not support the hypothesis based on Greenberg and Watson's (2006) theory. Three of the studies found some evidence that self-criticism and dependency each explained unique variance in depressive symptomatology (Besser & Priel, 2005; Luyten et al., 2007; Mongrain et al., 2004). One of these studies measured dependency with the Neediness subfactor (Besser & Priel, 2005). The fourth study found that self-criticism was a positive predictor of postpartum depressive symptomatology while dependency was a negative predictor (Priel & Besser, 1999). Had more of the 26 studies using the DEQ reviewed herein gone far enough in thoroughly testing Blatt's theory, there might be more evidence either for or against Blatt's (1974, 2004) – and Greenberg and Watson's (2006) – theories.

Recent research on the relations of self-discrepancies to depressive symptomatology suggests that consideration of Greenberg and Watson's (2006) theory along with Blatt's (1974, 2004) theory is a potentially fruitful pursuit. Self-discrepancies have been featured in theories of emotional distress (Higgins, 1987; Rogers, 1959). Bryan et al. (2008), using clinical measures of depressive symptomatology with a nonclinical sample, investigated the relations of the real-ideal (RI) and real-ought (RO) discrepancies to depressive symptomatology. Briefly, the RI discrepancy concerns the self as one sees oneself (the real self) and the self as one would like to be in one's own eyes (the ideal self; Rogers, 1959); in contrast, the RO discrepancy involves the real self and the self as one believes others think one ought to be (the ought self; Higgins, 1987). In addition, the RO discrepancy is thought to underlie the RI discrepancy developmentally, with the RI discrepancy becoming more experientially salient over time (Bryan et al., 2008). Thus, the relative experiential salience of the RI and RO discrepancies is similar to that for self-criticism and dependency in Greenberg and Watson's theory.

Bryan et al. (2008) found that (a) both the RI and RO discrepancies were significantly positively associated with depressive symptomatology, (b) the RI discrepancy explained unique variance in depressive symptomatology beyond that explained by the RO discrepancy, and (c) the RO discrepancy did not explain unique variance in depressive symptomatology beyond that explained by the RI discrepancy. The findings support Greenberg and Watson's (2006) broader hypothesis that self-oriented issues are more experientially salient in depression than are their other-oriented underpinnings. The present study tested hypotheses based on Blatt's (1974, 2004) and

Greenberg and Watson's (2006) theories with Blatt and colleagues' measure of the self-criticism and dependency constructs (i.e., the Depressive Experiences Questionnaire).

The Present Study

The present study adds to the literature on personality predispositions as vulnerabilities to depression by testing competing hypotheses based on Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories with longitudinal data from a nonclinical sample of college students collected at two time-points. Although Blatt's theory included both clinical and subclinical manifestations of depression, the present study concerns only depressive symptomatology and not diagnoses of depressive disorders. Blatt's theory predicts that self-criticism and dependency each will explain unique variance in depressive symptomatology beyond that explained by the other. Greenberg and Watson's theory predicts that self-criticism and dependency each will be correlated with depressive symptomatology, that self-criticism will be correlated with dependency, that self-criticism will explain unique variance in depressive symptomatology beyond that explained by dependency, and that dependency will become a nonsignificant predictor of depressive symptoms when controlling for self-criticism. The use of longitudinal data in the present study has the potential to highlight temporal stability of associations of self-criticism and dependency with depressive symptomatology and to rule out the possibility that depressed mood at one point in time accounts for the associations. The present study also tested the incremental validities of the total Dependency factor and the Neediness and Connectedness subfactors.

Consideration of Gender Differences

In light of findings of gender differences in the relations among self-criticism, dependency, and depressive symptomatology in one study that thoroughly tested Blatt's theory with partial correlations (Riley & McCranie, 1990), the present study included gender interaction terms in preliminary tests of the unique relations of self-criticism and dependency to depressive symptomatology. Blatt and Shichman (1983) extended Blatt's (1974, 2004) theory to include gender differences in the developmental processes that contribute to anaclitic and introjective depression. In particular, Blatt and Shichman theorized that, in Western cultures, the socialization of boys is geared toward self-definition whereas the socialization of girls is oriented toward relatedness. These differences in socialization could set the stage for gender differences in the prevalence of anaclitic and introjective depression, with higher rates of women presenting with anaclitic depression and higher rates of men presenting with introjective depression. This extension of Blatt's theory predicts that gender will interact with self-criticism and dependency in the prediction of depressive symptomatology.

Among the 26 studies using the DEQ cited herein, seven had only female participants (Fuhr & Shean, 1992; Klein et al., 1988; Lehman et al., 1997; Mongrain & Zuroff, 1989; Priel & Besser, 1999; Rosenfarb et al., 1999; Zuroff et al., 1990), precluding examinations of gender differences in the relations of self-criticism and dependency to depressive symptomatology. Nine studies had male and female participants but apparently did not examine interactions between the personality predispositions and gender in the prediction of depressive symptomatology (Abu-Kaf & Priel, 2008; Bacchiochi et al., 2003; Bagby et al., 1994; Dunkley et al., 2006; Fazaa &

Page, 2003; Franche & Dobson, 1992; McBride et al., 2006; Rector et al., 2000; Reis &

Grenyer, 2002). Six studies found no evidence of gender differences in the relations of

the personality predispositions to depressive symptomatology (Besser & Priel, 2005;

Blatt et al., 1982; Luyten et al., 2007; Mongrain et al., 2004; Smith et al., 1988) or the

onset of major depressive episodes (Cogswell et al., 2006). Finally, four studies did find

some evidence of gender differences in the relations of self-criticism and dependency to

depressive symptomatology (Brewin & Firth Cozens, 1997; Klein, 1989; Riley &

McCranie, 1990; Rude & Burnham, 1995). In their longitudinal study, Brewin and Firth-

Cozens (1997) found that Time 1 Self-Criticism and total Dependency, assessed with an

abbreviated version of the DEQ, were significantly associated with male participants'

scores on a measure of depressive symptomatology at Times 2 and 3, but, for women,

Time 1 Self-Criticism was significantly associated with scores on the measure of

depressive symptomatology at only Time 2, and Time 1 total Dependency was not

significantly associated with Times 2 or 3 depressive symptomatology for women. Klein

(1989) found that total Dependency was significantly associated with female outpatients',

but not male outpatients', scores on two six-month, follow-up measures of depressive

symptomatology; in addition, Self-Criticism was significantly associated with only

female outpatients' scores on one of the follow-up measures of depressive

symptomatology. Gender differences in Riley and McCranie's (1990) data have been

noted above. Rude and Burnham (1990) found that Neediness interacted with gender in

the prediction of depressive symptomatology; although Neediness forecasted scores on a

measure of depressive symptomatology for men and women, the researchers noted that

the association was stronger for women. Taken together, the studies finding gender

differences do not provide consistent support for Blatt and Shichman's (1983) extension of Blatt's (1974, 2004) theory, but the studies do underscore the importance of the present examination for differences between men and women in the relations of self-criticism and dependency to depressive symptomatology.

CHAPTER II

METHODOLOGY

Participants

Three hundred and twenty students enrolled in an introductory psychology course were recruited to participate. The exclusionary criteria were that participants must have been 18 years or older at the start of their participation and that they must not have signed up for another study conducted by the research team. They received course credit for their participation. At all times during the study, participants had the option of withdrawing while still receiving full credit. Four participants withdrew from the study and were given full credit.

Three participants were removed from the final dataset after inspection of the birthdates that they provided on the demographic questionnaire indicated, contrary to their signature on their consent forms, that they were not 18 at the start of study. Four participants did not complete the study due to computer errors that occurred while they were responding to the questionnaires; as noted above, they still received full credit. Eight participants completed the questionnaires at Time 1 but did not return to complete the questionnaires at Time 2. Seven participants were removed from the final dataset due to indications of invalid responding (e.g., providing the same response across all questionnaires). Finally, two participants were removed from the final dataset due to experimenter error in entering their identification numbers. Thus, the final dataset consisted of 296 participants. Demographic data are not available for two participants in the final dataset due to experimenter error in entering their identification numbers. All statistics reported below are in reference to the final dataset unless otherwise noted.

The final sample of 296 participants consisted of 142 (48.0 percent) males and 154 (52.0 percent) females. The sample had a mean age of 19.1 years ($SD = 3.1$); although participants ranged in age from 18 to 50, only four participants were older than 22. The majority (70.6 percent) of the sample identified as White/European-American; 5.7 percent as African-American/Black; 5.7 percent as Hispanic/Latino; 8.4 percent as Asian-American; 0.3 percent as Native American/American Indian; and 8.4 percent as other (e.g., biracial).

Measures

Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976; see Appendix A). The DEQ was used to assess the personality predispositions of self-criticism and dependency. The measure's development was oriented toward an assessment of the phenomenological experiences within depression instead of its symptomatology (Blatt, 2004; Blatt et al., 1976). This 66-item, self-report questionnaire has three factors: Dependency, Self-Criticism, and Efficacy (Blatt; 2004; Blatt et al., 1976; Zuroff, Quinlan, & Blatt, 1990). Dependency has two subfactors: Neediness and Connectedness (Rude & Burnham, 1995). Self-Criticism, Dependency, and Efficacy scores are based on participants' responses to each of the 66 items and the corresponding factor scoring coefficients for each item (Blatt, 2004: Besser & Priel, 2005). Neediness and Connectedness scores are based on Zuroff, Moskowitz, and Cote's (1999) replication of Rude and Burnham's (1995) second-order factor analysis of a subset of DEQ items (Besser & Babchoock, 2001; Besser & Priel, 2005; Dunkley et al., 2006). An adequate level of internal consistency has been ascertained for the Self-Criticism and Dependency factors, with alphas ranging from .75 to .81 for men and women in an undergraduate

sample (Zuroff et al., 1990). In addition, high test-retest correlations were reported for

Dependency (r = .81) and Self-Criticism (r = .75) over a 13-week timeframe and with an

undergraduate sample (Zuroff, Moskowitz, Wielgus, Powers, & Franko, 1983). In

contrast to the present study, Cogswell et al. (2006) used an alternative strategy for

computing Neediness and Connectedness scores; although this strategy was also based on

Rude and Burnham's analyses, two separate groups of items were apparently used to

compute each subfactor score. Cogswell et al. ascertained an adequate level of internal

consistency for Neediness and Connectedness, with alphas of .79 for both subfactors in

their student sample. For that same student sample, test-retest correlations of .63 for

Connectedness and .72 for Neediness for a period of two years were reported.

 Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II

was used to assess depressive symptomatology. The self-repot measure consists of 21

items that assess severity of depression. Item content coincides with the Diagnostic and

Statistical Manual of Mental Disorders – Fourth Edition's criteria for depressive

disorders (American Psychiatric Association, 1994). For example, items assess feelings

of sadness and worthlessness, self-criticism, and suicidal ideation. The measure provides

a total score that falls within one of four ranges: Minimal (0-13); Mild (14-19); Moderate

(20-28); and Severe (29-63). The BDI-II is frequently used in therapy outcome research

(Hill & Lambert, 2004) and has an alpha greater than .90 (Steer, Ball, Ranieri, & Beck,

1999) and a one-week test-retest correlation of .93 (Beck et al., 1996). In this study, the

BDI-II had an alpha of .91. The mean score on the BDI-II was 7.47 (SD = 7.38), which

was about five points lower than the mean reported by Beck et al. (1996) for their

nonclinical sample of college students.

Demographic Questionnaire (see Appendix B). Participants completed a brief demographic questionnaire. Items asked for participants' gender, age, date of birth, and race/ethnicity.

Procedure

Informed consent (see Appendix C) was obtained from each participant prior to administration of the questionnaires. Participants completed both the DEQ and BDI-II at Time 1 and, 10 weeks later, at Time 2. The Demographic Questionnaire was completed at the end of Time 2. An interval of 10 weeks was selected to maximize the amount of time between the first and second administrations of the questionnaires while still operating within the time constraints of the study pool from which participants were recruited. The collection of data at two time-points has the potential to highlight temporal stability of associations of self-criticism and dependency with depressive symptomatology and to rule out the possibility that depressed mood at one time-point accounts for the associations.

The questionnaires were administered via computer and in a group format. Participants also completed additional questionnaires as part of a larger study, and the order of the questionnaires varied across participants. A male and female researcher each assisted, as needed, approximately half of the male and half of the female participants during the data collection. Participants were debriefed (see Appendix D) at the conclusion of the second session.

Institutional Review

The approval of College of William and Mary Protection of Human Subjects Committee was secured prior to the collection of the data.

CHAPTER III

RESULTS

Since eight participants attrited after Time 1, independent t-tests were conducted to compare the eight attriters to the final sample of 296 completers on their Time 1 Neediness, Connectedness, total Dependency, Self-Criticism, and BDI-II scores. Results indicated that the groups did not significantly differ in their Time 1 Neediness $t(302) =$ .12, ns, Connectedness $t(302) = -1.01$, ns, total Dependency $t(302) = -.07$, ns, Self-Criticism $t(302) = -1.61$, ns, or BDI-II scores $t(7.12) = -1.52$, ns. Among the final sample of 296 participants, the majority (82.1 percent) of participants scored in the Minimal range on the BDI-II at Time 2; 9.4 percent in the Mild range; 7.1 percent in the Moderate range; and 1.4 percent in the Severe range. Male and female participants did not significantly differ in their BDI-II scores at Time 2 $t(294) = 1.32$, ns.

Table 1

Descriptive Statistics for Time 1 DEQ Variables and Time 2 BDI-II (N = 296)

Variable	M	SD	Min	Max
Time 1 DEQ				
Time 1 Neediness	.11	.79	-1.74	2.11
Time 1 Connectedness	-.42	.90	-3.38	1.84
Time 1 Total Dependency	-.51	.92	-3.38	2.34
Time 1 Self-Criticism	.01	.97	-2.49	2.27
BDI-II Time 2	7.47	7.38	0.00	36.00

Note. DEQ = Depressive Experiences Questionnaire; BDI-II = Beck Depression Inventory-II.

Table 2

Correlations among Time 1 DEQ Variables and Time 2 BDI-II (N = 296)

Variable	Time 1 Neediness	Time 1 Connectedness	Time 1 Total Dependency	Time 1 Self-Criticism	Time 2 BDI-II
Time 1 Neediness	-	.48***	.79***	.36***	.21***
Time 1 Connectedness		-	.82***	.27***	.08
Time 1 Total Dependency			-	.06	.03
Time 1 Self-Criticism				-	.44***
Time 2 BDI-II					-

Note. DEQ = Depressive Experiences Questionnaire; BDI-II = Beck Depression Inventory-II.
***$p < .001$

Descriptive statistics for the Time 1 DEQ variables and Time 2 BDI-II scores are reported in Table 1. As shown in Table 2, the bivariate correlations between the Time 1 DEQ variables and Time 2 BDI-II scores indicated that only Time 1 Neediness and Self-Criticism were significantly ($ps < .001$) associated with Time 2 BDI-II scores ($rs = .21$ and .44, respectively). Regarding the bivariate correlations among the Time 1 DEQ variables, Time 1 Neediness was significantly ($ps < .001$) associated with Time 1 Connectedness ($r = .48$), Time 1 total Dependency ($r = .79$), and Time 1 Self-Criticism ($r = .36$). Time 1 Connectedness was also significantly ($ps < .001$) associated with Time 1 total Dependency ($r = .82$) and Time 1 Self-Criticism ($r = .27$). Time 1 total Dependency

was not significantly associated with Time 1 Self-Criticism ($r = .06$). High correlations

between Time 1 Neediness and total Dependency and between Time 1 Connectedness

and total Dependency are expected since the subfactors are comprised of items that are

also included in the calculation of total Dependency scores (Rude & Burnham, 1995).

Assumptions of Multiple Regression

The data were examined for compatibility with the assumptions of standard

multiple regression. The final sample size of 296 satisfied the ratio of cases to

independent variables requirement. Normality of the predictor and criterion variables is

not a prerequisite for standard multiple regression (Cohen, Cohen, West, & Aiken, 2003),

but the prediction equation is bolstered if the variables are normally distributed

(Tabachnick & Fidell, 2007). The skewness and kurtosis statistics for the predictor and

criterion variables were within plus-or-minus two, indicating that there was not a

concerning degree of nonnormality. Outliers were identified with stem-and-leaf plots, but

they were not deleted unless examination of the data revealed signs of invalid responding.

Examination of the bivariate correlations among the predictor and criterion variables (see

Table 2) for each regression analysis and the collinearity diagnostics accompanying each

analysis indicated that multicollinearity and singularity were not prohibitive concerns

(Tabachnick & Fidell, 2007). In addition, the normality of residuals was ascertained with

Q-Q plots. Linearity of the relationship between each predictor variable and the criterion

variable was assessed with the following procedure: each predictor variable was zero-

centered; the zero-centered values were then squared; regressions with the zero-centered

variable and the squared zero-centered variable entered as predictors and participants'

Time 2 BDI-II scores entered as the criterion variable were performed. This test would

indicate a curvilinear relationship if the squared zero-centered variable were a significant predictor of the criterion variable (Cohen et al., 2003); this was not the case for any of the zero-centered predictor variables. The zero-centered predictor variables were also used in the preliminary and main regression analyses. Finally, residual scatterplots demonstrated homoscedasticity of residuals (Tabachnick & Fidell, 2007). In sum, the assumptions of standard multiple regression were met.

Table 3

Regression Analysis with Time 1 Neediness and Connectedness as Predictors of Time 2 BDI-II and Gender Interaction Terms (N = 296)

Variable	B	$SE\ B$	β
Step 1			
Neediness	1.55	.49	.21**
Connectedness	-.19	.48	-.03
Gender	.34	.43	.05
Step 2			
Gender X Neediness	-.43	.49	-.06
Gender X Connectedness	-.19	.48	-.03

Note. R^2 = .05 for Step 1 ($p < .01$); ΔR^2 = .01 for Step 2 (*ns*). BDI-II = Beck Depression Inventory-II.
**$p < .01$

Table 4

Regression Analysis with Time 1 Neediness and Connectedness as Predictors of Time 2 BDI-II (N = 296)

Variable	B	$SE\ B$	β
Neediness	1.61	.48	.22***
Connectedness	-.20	.48	-.03

Note. R = .21 and Adj. R^2 = .04 (p < .01). BDI-II = Beck Depression Inventory-II. ***p = .001.

Preliminary Regression Analyses

The incremental validities of participants' Time 1 Neediness and Connectedness scores in the prediction of their Time 2 BDI-II scores were tested with standard regression analyses in order to determine whether one or both measures should be used in analyses with Self-Criticism to test the hypotheses. The interactions of gender with Neediness and Connectedness were included as predictors on the second step of an initial standard regression analysis in order to ascertain whether data for male and female participants should be analyzed separately. As shown in Table 3, results for Step 2 indicated that $F(5, 290)$ = 3.07, p = .01, R = .22, Adj. R^2 = .03. The R was significantly different from zero. Neither the Neediness × Gender (β = -.06, *ns*) nor the Connectedness × Gender (β = -.03, *ns*) interaction terms, however, was significantly associated with Time 2 BDI-II scores. Since the relations between participants' Time 1 Neediness and Connectedness scores and their Time 2 BDI-II scores did not differ by gender, another standard regression analysis with only Time 1 Neediness and Connectedness scores entered as predictors of Time 2 BDI-II scores was performed. As shown in Table 4,

results indicated that $F(2, 293) = 6.55$, $p < .01$, $R = .21$, Adj. $R^2 = .04$. The R was

significantly different from zero. Only Time 1 Neediness ($\beta = .22$, $p = .001$) was

significantly and uniquely associated with Time 2 BDI-II scores. The greater participants'

Time 1 Neediness scores, the higher their Time 2 BDI-II scores tended to be. Since only

Time 1 Neediness was significantly and uniquely associated with Time 2 BDI-II scores,

Time 1 Neediness was selected as the subfactor to be tested along with Time 1 Self-

Criticism in the main regression analysis.

Table 5

Regression Analysis with Time 1 Neediness and Self-Criticism as Predictors of Time 2 BDI-II and Gender Interaction Terms (N = 296)

Variable	B	$SE\ B$	β
Step 1			
Neediness	.35	.42	.05
Self-Criticism	3.06	.42	.42***
Gender	.34	.39	.05
Step 2			
Gender X Neediness	-.28	.43	-.04
Gender X Self-Criticism	.42	.42	.06

Note. $R^2 = .19$ for Step 1 ($p < .001$); $\Delta R^2 = .00$ for Step 2 (*ns*). BDI-II = Beck Depression Inventory-II.
***$p < .001$.

Table 6

Regression Analysis with Time 1 Neediness and Self-Criticism as Predictors of Time 2 BDI-II (N = 296)

Variable	B	$SE\,B$	β
Neediness	.40	.42	.06
Self-Criticism	3.06	.42	.42***

Note. $R = .44$ and Adj. $R^2 = .19$ ($p < .001$). BDI-II = Beck Depression Inventory-II.
*** $p < .001$

Main Regression Analyses

In order to test the contrasting hypotheses based on Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories, the incremental validities of participants' Time 1 Neediness and Self-Criticism scores in the prediction of their Time 2 BDI-II scores were tested with standard regression analyses. The interactions of gender with Neediness and Self-Criticism were included as predictors on the second step of an initial standard regression analysis in order to ascertain whether data for male and female participants should be analyzed separately. As shown in Table 5, results for Step 2 indicated that $F(5, 290) = 14.24, p < .001, R = .44$, Adj. $R^2 = .18$. The R was significantly different from zero. Neither the Neediness × Gender ($\beta = -.04$, *ns*) nor the Self-Criticism × Gender ($\beta = .06$, *ns*) interaction terms, however, was significantly associated with Time 2 BDI-II scores. Since the relations between participants' Time 1 Neediness and Self-Criticism scores and their Time 2 BDI-II scores did not differ by gender, another standard regression analysis with only Time 1 Neediness and Self-Criticism scores entered as predictors of Time 2 BDI-II scores was conducted. As shown in Table 6, results indicated

that $F(2, 293) = 34.83, p < .001, R = .44$, Adj. $R^2 = .19$. The R was significantly different from zero. Only Time 1 Self-Criticism ($\beta = .42, p < .001$) was significantly and uniquely associated with Time 2 BDI-II scores. The greater participants' Time 1 Self-Criticism scores, the higher their Time 2 BDI-II scores tended to be. The results confirmed the hypothesis based on Greenberg and Watson's (2006) theory.

Table 7

Regression Analysis with Time 1 Total Dependency and Self-Criticism as Predictors of Time 2 BDI-II and Gender Interaction Terms (N = 296)

Variable	B	SE B	β
Step 1			
Total Dependency	-.07	.39	-.01
Self-Criticism	3.19	.39	.43***
Gender	.40	.39	.05
Step 2			
Gender X Total Dependency	-.24	.40	-.03
Gender X Self-Criticism	.30	.39	.04

Note. $R^2 = .19$ for Step 1 ($p < .001$); $\Delta R^2 = .00$ for Step 2 (*ns*). BDI-II = Beck Depression Inventory-II.
***$p < .001$.

A second test of the contrasting hypotheses based on Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories was conducted. The incremental validities of participants' Time 1 total Dependency and Self-Criticism scores in the prediction of their Time 2 BDI-II scores were tested with standard regression analyses. Although participants' Time 1 total Dependency and Time 2 BDI-II scores were not significantly correlated ($r = .03$, *ns*), this second set of analyses was conducted in order to more fully ascertain the incremental validity of Time 1 Self-Criticism in the prediction of Time 2 BDI-II scores. The interactions of gender with total Dependency and Self-Criticism were included as predictors on the second step of an initial standard regression analysis in order to determine whether data for male and female participants should be analyzed separately. As shown in Table 7, results for Step 2 indicated that $F(5, 290) = 14.03$, $p < .001$, $R = .44$, Adj. $R^2 = .18$. The R was significantly different from zero. Neither the total Dependency × Gender ($\beta = -.03$, *ns*) nor the Self-Criticism × Gender ($\beta = .04$, *ns*) interaction terms, however, was significantly associated with Time 2 BDI-II scores. Since the relations between participants' Time 1 total Dependency and Self-Criticism scores and their Time 2 BDI-II scores did not differ by gender, another standard regression analysis with only Time 1 total Dependency and Self-Criticism scores entered as predictors of Time 2 BDI-II scores was performed. As shown in Table 8, results indicated that $F(2, 293) = 34.25$, $p < .001$, $R = .44$, Adj. $R^2 = .18$. The R was significantly different from zero. Only Time 1 Self-Criticism ($\beta = .44$, $p < .001$) was significantly and uniquely associated with Time 2 BDI-II scores. The greater participants' Time 1 Self-Criticism scores, the higher their Time 2 BDI-II scores tended to be. The results again confirmed the hypothesis based on Greenberg and Watson's (2006) theory.

Table 8

Regression Analysis with Time 1 Total Dependency and Self-Criticism as Predictors of Time 2 BDI-II (N = 296)

Variable	B	$SE\ B$	β
Total Dependency	-.02	.39	.00
Self-Criticism	3.21	.39	.44***

Note. $R = .44$ and Adj. $R^2 = .18$ ($p < .001$). BDI-II = Beck Depression Inventory-II.
***$p < .001$.

CHAPTER IV

DISCUSSION

In the present study, competing sets of hypotheses concerning the relations of

self-criticism and dependency to depressive symptomatology based on Blatt's (1974,

2004) theory and Greenberg and Watson's (2006) theory were tested. Blatt's theory is

that self-criticism and dependency are separate and distinct personality predispositions to

depression. In contrast, Greenberg and Watson's theory is that dependency underlies self-

criticism in predisposing individuals to depression. With regard to the present study,

Blatt's theory predicts that self-criticism and dependency each explain unique variance in

depressive symptomatology beyond that explained by the other. Greenberg and Watson's

theory predicts that self-criticism and dependency are correlated with depressive

symptomatology, that self-criticism is correlated with dependency, that self-criticism

explains unique variance in depressive symptomatology beyond that explained by

dependency, and that dependency becomes a nonsignificant predictor of depressive

symptomatology after controlling for self-criticism.

The hypotheses were tested with data collected at two time-points, 10 weeks

apart, from a nonclinical sample of college students. Self-criticism and dependency were

assessed at Times 1 and 2 with the Depressive Experiences Questionnaire (DEQ; Blatt,

D'Afflitti, & Quinlan, 1976). The DEQ provides three measures of dependency: the first

is a total Dependency score; the second and third are two subfactors of total Dependency,

Neediness and Connectedness. Depressive symptomatology was assessed at Times 1 and

2 with the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). The

questionnaires were administered at two time-points in order to show temporal stability

of associations of self-criticism and dependency with depressive symptomatology and to rule out the possibility that depressed mood at one point in time accounts for the correlations. A preliminary analysis of the Time 1 data showed that the eight participants who attrited did not significantly differ from the participants who completed the study on any of the Time 1 variables, indicating that questions concerning how the results might have been influenced had the attrited participants completed the study were not salient.

The present study found that self-criticism and one of three measures of dependency were significantly positively correlated with depressive symptomatology. In addition, self-criticism was significantly positively correlated with two of three measures of dependency. Finally, self-criticism explained unique variance in depressive symptomatology beyond that explained by dependency, but dependency did not explain unique variance in depressive symptomatology beyond that explained by self-criticism. The findings support all of the hypotheses based on Greenberg and Watson's (2006) theory and do not support Blatt's (1974, 2004) hypothesis that dependency explains unique variance in depressive symptomatology beyond that explained by self-criticism.

Gender

Blatt and Shichman (1983) theorized that gender interacts with self-criticism and dependency in the prediction of depressive symptomatology, but in the present study no gender differences were found in the relations of self-criticism and dependency to depressive symptomatology. These results are aligned with the findings of four previous studies using clinical measures with nonclinical samples (Besser & Priel, 2005; Cogswell et al., 2006; Mongrain et al., 2004; Smith et al., 1988) and two studies with both clinical and nonclinical samples (Blatt et al., 1982; Luyten et al., 2007). The results of the present

study, however, contradict findings from two studies that used clinical measures with nonclinical samples (Brewin & Firth-Cozens, 1997; Luyten et al., 2007) and two studies with clinical samples (Klein, 1989; Riley & McCranie, 1990) that did indicate some evidence of gender differences. There is inconsistent support across studies that used either nonclinical or clinical samples for Blatt and Shichman's (1983) extension of Blatt's (1974, 2004) theory, which predicts that gender will interact with self-criticism and dependency in the prediction of depressive symptomatology.

Dependency Measure

The present study considered all three measures of dependency provided by the DEQ, including the total Dependency factor that was initially identified (Blatt, D'Afflitti, & Quinlan, 1976) and the two subfactors of total Dependency, Neediness and Connectedness, that were later identified (Rude & Burnham, 1995). Since the findings of previous research investigating the relations of the Neediness and Connectedness subfactors to depressive symptomatology (Bacchiochi et al., 2003; Besser & Priel, 2005; Dunkley et al., 2006; McBride et al., 2006; Rude & Burnham, 1995) or the onset of major depressive episodes (Cogswell et al., 2006) have been mixed, a preliminary regression analysis was conducted in order to determine which subfactor to include in the main analysis. This preliminary analysis indicated that Neediness had incremental validity beyond Connectedness in the prediction of BDI-II scores; as such, Neediness was selected as the measure of dependency to include in the main analyses. This result coincides with the findings of two previous studies that used clinical measures with nonclinical samples (Besser & Priel, Rude & Burnham, 1995) but is inconsistent with the findings of two other studies, including one that used clinical measures with a nonclinical

sample (Dunkley et al., 2006) and another with a clinical sample (Bacchiochi et al., 2006). Dunkley et al. found that both Neediness and Connectedness were significantly positively correlated with depressive symptomatology; neither subfactor, however, predicted depressive symptomatology in separate multiple regression analyses when controlling for neuroticism. Bacchiochi et al. found that only Connectedness was significantly positively correlated with depressive symptomatology. These previous studies used only bivariate correlations (Bacchiochi et al., 2003; Rude & Burnham, 1995) or regression analyses that did not include both subfactors (Besser & Priel, 2005; Dunkley et al., 2006). Unlike the present study, they did not provide thorough tests of the relations of the subfactors to depressive symptomatology.

Two previous studies tested the relations of the subfactors to depressive symptomatology or the onset of major depressive episodes with partial correlations or regression analyses that included both subfactors (Cogswell et al., 2006; McBride et al., 2006). McBride et al., using clinical measures with a nonclinical sample, found significant bivariate correlations between Neediness and depressive symptomatology and between Connectedness and depressive symptomatology. In contrast, partial correlations indicated that only Neediness was uniquely associated to depressive symptomatology. Bivariate correlations from a clinical sample in that study, however, indicated that neither subfactor was associated with depressive symptomatology. That study also did not include the total Dependency factor. Cogswell et al. (2006), using clinical measures with a nonclinical sample, found significant bivariate correlations for Neediness but not for Connectedness with the onset of major depressive episodes over two and a half years; a bivariate correlation for total Dependency was not reported. Further, using all three

measures of dependency as predictors in a logistic regression analysis, Cogswell et al.

found that Neediness scores, but not the Connectedness or the total Dependency scores,

predicted the onset of major depressive episodes over two and a half years; the

association became marginally significant when scores on a measure of depressive

symptomatology from the same time-point as the assessment of Neediness were

controlled. In summary, when the results of the present study are considered with only

the results of three previous studies that thoroughly tested the relations of the subfactors

to depressive symptomatology or the onset of major depressive episodes, two found that

only Neediness, and not Connectedness, showed incremental validity in predicting

depressive symptomatology (the present study; McBride et al., 2006), and the third

showed that Neediness was a marginally significant predictor of the onset of major

depressive episodes (Cogswell et al., 2006). These studies suggest an individual's level of

anxiety about potential rejection could be particularly salient in vulnerability to

depression. Additional research, however, must replicate and extend the findings of these

studies and further reconcile them with the mixed evidence from the overall body of

previous research using the subfactors.

Findings of the Present Study and Past Studies

To summarize the results of the tests of the hypotheses in the present study, the

findings support Greenberg and Watson's (2006) theory and not Blatt's (1974, 2004)

theory. Greenberg and Watson's theory predicts that both self-criticism and dependency

are correlated with depressive symptomatology and that self-criticism and dependency

are correlated with each other. Bivariate correlations among Self-Criticism, Neediness,

and BDI-II scores support this component of Greenberg and Watson's theory. Moreover,

the measurement of depressive symptomatology 10 weeks after the measurement of self-criticism and dependency shows temporal stability of the correlations, ruling out the interpretation that depressed mood at one time-point accounts for the correlations. In addition, the findings that Self-Criticism had incremental validity beyond measures of dependency in the prediction of BDI-II scores and that dependency became a nonsignificant predictor of BDI-II scores after controlling for self-criticism also support Greenberg and Watson's theory that dependency underlies self-criticism in predisposing individuals to depression. The incremental validity analyses do not support Blatt's contention that self-criticism and dependency are separate and distinct predispositions to depression.

The findings of the present study contradict the results of three previous studies that, like the present study, used clinical measures with nonclinical samples and also provided thorough tests of Blatt's theory (1974, 2004) by using partial correlations or incremental validity analyses (Besser & Priel, 2005; Mongrain et al., 2004 Priel & Besser, 1999). Besser and Priel used Self-Criticism and Neediness scores and found that each independently contributed to depressive symptomatology, supporting Blatt's theory. Mongrain et al. used Self-Criticism and total Dependency scores from a student sample; Self-Criticism and total Dependency assessed early in an academic year each predicted unique variance in mid-year depressive symptomatology, supporting Blatt's theory, but only total Dependency predicted unique variance in end-of-year depressive symptomatology, not supporting Blatt's theory. Priel and Besser, using a sample of pregnant women, found that only Self-Criticism had a significant bivariate correlation with depressive symptomatology. Regression analyses indicated that both Self-Criticism

and total Dependency explained unique variance in postpartum depressive symptomatology beyond that explained by the other; however, Self-Criticism was a significant positive predictor of postpartum depressive symptomatology, but total Dependency was a significant negative predictor of postpartum depressive symptomatology, not supporting Blatt's theory.

The findings of the present study also contradict the results of another previous study that used both a clinical sample and clinical measures with nonclinical samples and thoroughly tested Blatt's (1974, 2004) theory with multiple regression analyses (Luyten et al., 2007). Luyten et al. (2007) used Self-Criticism and total Dependency scores and found that each explained unique variance in depressive symptomatology for two out of three measures of depressive symptomatology for a clinical sample and for all three measures of depressive symptomatology in nonclinical samples, supporting Blatt's theory.

The findings of the present study align with findings from only female participants in a previous study that used only a clinical sample and provided a thorough test of Blatt's theory with partial correlations (Riley & McCranie, 1990). Riley and McCranie used Self-Criticism and total Dependency scores and found that, among the women in their study, only Self-Criticism was uniquely associated with two measures of depressive symptomatology; total Dependency was not associated with either measure of depressive symptomatology when controlling for Self-Criticism, supporting Greenberg and Watson's (2006) theory. For the men in the study, zero-order correlations indicated that Self-Criticism was significantly positively correlated with one of the two measures of depressive symptomatology whereas total Dependency was not correlated with either.

Partial correlations were not computed for the data from the men; the researchers

reasoned that since self-criticism and dependency were significantly associated with each

other among women but not among men, the bivariate correlations for men were

sufficient tests of the relations of the constructs to depressive symptomatology.

Overall, among the studies that used clinical measures with nonclinical samples

and provided thorough tests of Blatt's theory (Besser & Priel, 2005; Luyten et al., 2007;

Mongrain et al., 2004; Priel & Besser, 1999), including the present study, there is mixed

support for both Blatt's (1974, 2004) theory and Greenberg and Watson's (2006) theory.

There is also mixed support for both theories among studies that used a clinical sample

and provided a thorough test of Blatt's theory (Riley & McCranie, 1990; Luyten et al.,

2007).

When only studies that collected data over a longitudinal timeframe in testing

Blatt's (1974, 2004) theory are considered, the present study is the only one that assessed

Neediness and Connectedness along with total Dependency and Self-Criticism. One

previous study (Cogswell et al., 2006) used all three measures of dependency but did not

assess Self-Criticism. Two previous studies with thorough tests of Blatt's theory assessed

only Self-Criticism and total Dependency and provided mixed support for his theory and

did not support Greenberg and Watson's (2006) theory (Mongrain et al., 2004; Priel &

Besser, 1999). The findings of those studies were noted in detail above. The lack of

research collecting data over a longitudinal timeframe and providing thorough tests of

Blatt's and Greenberg and Watson's theories reinforces the need to replicate the findings

of the present study.

The inconsistent evidence for Blatt's (1974, 2004) theory raises questions about its validity (Zuroff et al., 1983). The lack of support for Blatt's theory could reflect the dearth of studies using partial correlation or incremental validity tests of the relations of self-criticism and dependency to depressive symptomatology. Future studies with thorough statistical tests could provide additional support for his theory. If additional research, however, replicates and extends the results of the present study, the validity of Blatt's theory should be reconsidered. Alternatively, Blatt's theory may accurately capture the role of self-criticism and dependency in the onset and maintenance of depression, but the DEQ may be an insufficient measure that does not enable studies to find adequate support (Fuhr & Shean, 1992; Zuroff et al., 1983). Blaney and Kutcher (1991) noted that some of the DEQ items assessing self-criticism appear to capture "manifest distress" rather than aspects of personality involved in self-criticism that could contribute to depressive symptomatology (p. 510). Blaney and Kutcher did not administer both the DEQ and the BDI-II to their participants, nor did they single out the BDI-II in particular or specify the number of items in the two measures with overlapping content. I inspected both measures and noted three of the 66 items from the DEQ (i.e., "I tend to be very critical of myself," " I often blame myself for things I have done or said to someone," "I often feel guilty") that appear to closely coincide with two of the 21 items from the BDI-II. The parallels in item content between the two measures could have contributed to spurious correlations between the DEQ and BDI-II scores in the present study. Blaney and Kutcher's concern also underscores the question of how to psychometrically distinguish personality predispositions to depression and symptoms of depression that might originate, at least in part, from those predispositions. Finally, Blatt

et al. (1976) raised the possibility that measures of depression might not touch on anaclitic aspects of depression as fully as introjective aspects; this possibility was also raised in Blatt et al. (1982) and Blatt (2004). The present study found a significant correlation between Neediness and the BDI-II; that correlation, however, was not as strong as the correlation between Self-Criticism and the BDI-II. The findings of the present study could reflect, in part, the choice of the BDI-II to test the hypotheses. Use of the BDI-II, however, need not necessarily preclude finding support for Blatt's theory, as Luyten et al. (2007) included the BDI-II among their measures of depression and, in a thorough test of Blatt's theory, found evidence that supported it.

The mixed support for both Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories raises other questions. It could be that while Greenberg and Watson's theory adequately explains the vulnerability to depression for some individuals, Blatt's theory elucidates the vulnerability for other individuals. In other words, neither theory might account for all individuals' experiences of depression. Additional studies using thorough tests of both theories could help to clarify the mixed findings that have emerged thus far.

The present study adds to the literature by testing the relations of all three measures of dependency from the DEQ along with Self-Criticism to depressive symptomatology with data collected at two time-points. None of the previous studies I located included such a comprehensive test of Blatt's (1974, 2004) theory. In this way, the present study has brought together different strands of research concerning Blatt's theory. The study also featured a rigorous test of Blatt's theory, which, as the review herein indicates, has been a rarity. In addition, although the present study tests hypotheses

based on two theories that are rooted in different theoretical traditions (i.e., emotion-focused and psychoanalytic), the investigation has been specific to the constructs of self-criticism and dependency. As noted earlier, citing research on conceptually and operationally different constructs (i.e., sociotropy, autonomy) in support of Blatt's theory (e.g., Blatt, 2004) is questionable. By staying focused on the self-criticism and dependency constructs, the present study has highlighted the limited and mixed support for Blatt's and Greenberg and Watson's (2006) theory and the need for more rigorous scrutiny of the theories. Given these contributions and the considerations for future research described below, the study could serve as a springboard for additional, rigorous inquiry into the relations of the personality predispositions of self-criticism and dependency to depressive symptomatology.

Limitations

Several limitations of the present study must be acknowledged. First, the results may not be generalizable beyond the developmental level of young adult college students. In addition, the sample was predominantly White/European-American, and the results might not generalize to more diverse college populations. Also, depressive symptomatology was measured with only a self-report instrument. Another limitation concerns the psychometric properties of the Neediness and Connectedness subfactors of total Dependency. The DEQ was not developed to measure Neediness and Connectedness (Blatt et al., 1976), and the subfactors' discriminant validity with regard to related constructs (e.g., rejection sensitivity; Downey & Fledman, 2004) remains unclear. Finally, the research design does not permit conclusions regarding causal relationships

between the personality predispositions of self-criticism and dependency to depressive symptomatology.

Future Research

The results of the present study point to numerous opportunities for future research. Chief among them is the need to replicate the findings of the present study in other populations (e.g., clinical populations). In addition, Blatt (1974, 2004) theorized that individuals' early object-relations are the basis for self-criticism and dependency, and this developmental component of his theory highlights the potential value of longitudinal investigations with child participants who are followed into adulthood.

Another focal point for future research concerns particular groups of life stressors that might interact with self-criticism and dependency to cause depression. Blatt (1974, 2004) theorized that experiences of failure are key aspects of introjective, or self-criticism-based, depression, whereas experiences of turbulence in interpersonal relationships are central to anaclitic, or dependency-based, depression. The notion that certain stressful experiences might be especially problematic for individuals with particular predispositions has been referred to in the literature as the congruency hypothesis (e.g., Blatt, 2004; Blatt et al., 1976; Cogswell et al., 2006; Nietzel & Harris, 1990). More specifically, the hypothesis suggests that individuals with a particular predisposition might experience certain stressors in ways that increase their vulnerability to depression. Future studies of the role of personality predispositions in the etiology of depression should continue to incorporate this consideration into rigorous methodologies.

Another avenue for future research is the inclusion of multiple measures of depressive symptomatology. The present study is limited by the use of only one self-

report measure of depressive symptomatology. Shean and Baldwin (2008) caution against using only self-report measures, as this strategy might result in false positives; they recommend using self-report measures in conjunction with diagnostic interviews. Additionally, future research might further investigate the relations of self-criticism and dependency to depressive symptomatology in the context of treatment for depression (Blatt et al., 1976). For example, Rector et al. (2000) found that Self-Criticism and total Dependency scores decreased among outpatients with major depression being treated with either cognitive therapy or pharmacotherapy. Moreover, Rector et al. found that changes in self-criticism and dependency were significantly associated with changes in participants' scores on the BDI. Whether these associations reflect the parallels in item content between any DEQ items that capture manifest distress (Blaney & Kutcher, 1991) and the BDI is unclear. Nevertheless, the notion that interventions for depression might soften a personality predisposition to the disorder is intriguing and merits additional attention. Research in this area could aid in fortifying interventions for depression and other disorders in which self-criticism and dependency might be implicated. For example, Bruce and Steiger (2005) suggested that a "trait-oriented intervention" aimed at perfectionism could be beneficial for individuals with eating disorders (p. 93).

Another potentially relevant theory of personality predispositions as vulnerabilities to depression is Rogers's (1959) theory of self-discrepancy. Bryan et al. (2008) articulated the similarity between Rogers's theory and Greenberg and Watson's (2006) theory. According to Rogers, a self-discrepancy, like the personality predispositions of self-criticism and dependency in Blatt's (1974, 2004) theory and Greenberg and Watson's (2006) theory, is a vulnerability to emotional distress. Similar to

Blatt's theory, Rogers's theory also has a developmental component. Rogers theorized that the introjection of conditions of worth from significant others (e.g., parents) leads to a high discrepancy between the real self and the ideal self. The real-ideal discrepancy becomes a personality trait in early adolescence (Katz & Zigler, 1967). Higgins (1987) later introduced the concept of the real-ought discrepancy, which can be used as a measure of conditions of worth (Bryan et al., 2008). Rogers's theory suggests that the real-ought discrepancy (RO) underlies the real-ideal (RI) discrepancy within one's self-concept (Bryan et al., 2008). Regarding self-criticism and dependency, Bryan et al. (2008) later interpreted Greenberg and Watson's (2006) theory in terms of Rogers's self-discrepancy theory. Specifically, Bryan et al. suggested that a high RI is implicit within self-criticism and that a high RO is implicit within dependency-related concerns underlying that self-criticism. The theoretical linkages between Blatt's, Greenberg and Watson's, and Rogers's theories have yet to be fully researched, but parallels between them suggest that future inquiry in this vein could be quite fruitful. It is possible that some aspects of the theories are describing the same psychological phenomena but with different vocabularies rooted in different theoretical traditions.

The present study is a step in the direction of more rigorous scrutiny of Blatt's (1974, 2004) and Greenberg and Watson's (2006) theories. Much research, however, regarding the role of self-criticism and dependency in the etiology, maintenance, and treatment of depression remains to be conducted.

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APPENDIX A

DEPRESSIVE EXPERIENCES QUESTIONNAIRE

<u>Instructions</u>: Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you <u>strongly agree</u>, circle 7; if you <u>strongly disagree</u>, circle 1; the midpoint, if you are neutral or undecided, is 4.

1. I set my personal goals and standards as high as possible.

    1   2   3   4   5   6   7

2. Without support from others who are close to me, I would be helpless.

    1   2   3   4   5   6   7

3. I tend to be satisfied with my current plans and goals, rather than striving for higher goals.

    1   2   3   4   5   6   7

4. Sometimes I feel very big, and other times I feel very small.

    1   2   3   4   5   6   7

5. When I am closely involved with someone, I never feel jealous.

    1   2   3   4   5   6   7

6. I urgently need things that only other people can provide.

    1   2   3   4   5   6   7

7. I often find that I don't live up to my own standards or ideals.

    1   2   3   4   5   6   7

8. I feel I am always making full use of my potential abilities.

    1   2   3   4   5   6   7

9. The lack of permanence in human relationships doesn't bother me.

    1   2   3   4   5   6   7

10. If I fail to live up to expectations, I feel unworthy.

                1   2   3   4   5   6   7

11. Many times I feel helpless.

                1   2   3   4   5   6   7

12. I seldom worry about being criticized for things I have said or done.

                1   2   3   4   5   6   7

13. There is a considerable difference between how I am now and how I would like to be.

                1   2   3   4   5   6   7

14. I enjoy sharp competition with others.

                1   2   3   4   5   6   7

15. I feel I have many responsibilities that I must meet.

                1   2   3   4   5   6   7

16. There are times when I feel "empty" inside.

                1   2   3   4   5   6   7

17. I tend not to be satisfied with what I have.

                1   2   3   4   5   6   7

18. I don't care whether or not I live up to what other people expect of me.

                1   2   3   4   5   6   7

19. I become frightened when I feel alone.

                1   2   3   4   5   6   7

20. I would feel like I'd be losing an important part of myself if I lost a very close friend.

                1   2   3   4   5   6   7

21. People will accept me no matter how many mistakes I have made.

<div align="center">

1   2   3   4   5   6   7

</div>

22. I have difficulty breaking off a relationship that is making me unhappy.

<div align="center">

1   2   3   4   5   6   7

</div>

23. I often think about the danger of losing someone who is close to me.

<div align="center">

1   2   3   4   5   6   7

</div>

24. Other people have high expectations of me.

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1   2   3   4   5   6   7

</div>

25. When I am with others, I tend to devalue or "undersell" myself.

<div align="center">

1   2   3   4   5   6   7

</div>

26. I am not very concerned with how other people respond to me.

<div align="center">

1   2   3   4   5   6   7

</div>

27. No matter how close a relationship between two people is, there is always a large amount of uncertainty and conflict.

<div align="center">

1   2   3   4   5   6   7

</div>

28. I am very sensitive to others for signs of rejection.

<div align="center">

1   2   3   4   5   6   7

</div>

29. It's important for my family that I succeed.

<div align="center">

1   2   3   4   5   6   7

</div>

30. Often, I feel I have disappointed others.

<div align="center">

1   2   3   4   5   6   7

</div>

31. If someone makes me angry, I let him (her) know how I feel.

<div align="center">

1   2   3   4   5   6   7

</div>

32. I constantly try, and very often go out of my way, to please or help people I am close to.

        1   2   3   4   5   6   7

33. I have many inner resources (abilities, strengths).

        1   2   3   4   5   6   7

34. I find it very difficult to say "No" to the requests of friends.

        1   2   3   4   5   6   7

35. I never really feel secure in a close relationship.

        1   2   3   4   5   6   7

36. The way I feel about myself frequently varies: there are times when I feel extremely good about myself and other times when I see only the bad in me and feel like a total failure.

        1   2   3   4   5   6   7

37. Often, I feel threatened by change.

        1   2   3   4   5   6   7

38. Even if the person who is closest to me were to leave, I could still "go it alone."

        1   2   3   4   5   6   7

39. One must continually work to gain love from another person: that is, love has to be earned.

        1   2   3   4   5   6   7

40. I am very sensitive to the effects my words or actions have on the feelings of other people.

        1   2   3   4   5   6   7

41. I often blame myself for things I have done or said to someone.

        1   2   3   4   5   6   7

42. I am a very independent person.

1   2   3   4   5   6   7

43. I often feel guilty.

1   2   3   4   5   6   7

44. I think of myself as a very complex person, one who has "many sides."

1   2   3   4   5   6   7

45. I worry a lot about offending or hurting someone who is close to me.

1   2   3   4   5   6   7

46. Anger frightens me.

1   2   3   4   5   6   7

47. It is not "who you are," but "what you have accomplished" that counts.

1   2   3   4   5   6   7

48. I feel good about myself whether I succeed or fail.

1   2   3   4   5   6   7

49. I can easily put my own feelings and problems aside, and devote my complete attention to the feelings and problems of someone else.

1   2   3   4   5   6   7

50. If someone I cared about became angry with me, I would feel threatened that he (she) might leave me.

1   2   3   4   5   6   7

51. I feel comfortable when I am given important responsibilities.

1   2   3   4   5   6   7

52. After a fight with a friend, I must make amends as soon as possible.

1   2   3   4   5   6   7

53. I have a difficult time accepting weaknesses in myself.

      1   2   3   4   5   6   7

54. It is more important that I enjoy my work than it is for me to have my work approved.

      1   2   3   4   5   6   7

55. After an argument, I feel very lonely.

      1   2   3   4   5   6   7

56. In my relationships with others, I am very concerned about what they can give to me.

      1   2   3   4   5   6   7

57. I rarely think about my family.

      1   2   3   4   5   6   7

58. Very frequently, my feelings toward someone close to me vary: there are times when I feel completely angry and others times when I feel all-loving towards that person.

      1   2   3   4   5   6   7

59. What I do and say has a very strong impact on those around me.

      1   2   3   4   5   6   7

60. I sometimes feel that I am "special."

      1   2   3   4   5   6   7

61. I grew up in an extremely close family.

      1   2   3   4   5   6   7

62. I am very satisfied with myself and my accomplishments.

      1   2   3   4   5   6   7

63. I want many things from someone I am close to.

<div align="center">

1   2   3   4   5   6   7

</div>

64. I tend to be very critical of myself.

<div align="center">

1   2   3   4   5   6   7

</div>

65. Being alone doesn't bother me at all.

<div align="center">

1   2   3   4   5   6   7

</div>

66. I very frequently compare myself to standards or goals.

<div align="center">

1   2   3   4   5   6   7

</div>

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

1. Gender _____ Female _____ Male

2. Your Age _____ Years

3. Date of Birth _____ (Month/Day/Year)

4. Race/Ethnicity
   _____ 1) White/European-American
   _____ 2) African-American/Black
   _____ 3) Hispanic/Latino
   _____ 4) Asian-American
   _____ 5) Native American/American Indian
   _____ 6) Other _____ (Please specify)

APPENDIX C

INFORMED CONSENT FORM

In this study conducted by Dave Canose (757-746-4758) under the supervision of Dr.

Neill Watson (221-3889), I understand that I will be asked to complete a number of

questionnaires concerning different aspects of myself and my emotions at two different

times ten weeks apart. I further understand that my responses will be confidential and that

my name will not be associated with any results of this study. I know that I may refuse to

answer any question asked and that I may discontinue participation at any time. I also

understand that any grade, payment, or credit for participation will not be affected by my

responses or by my exercising any of my rights. I further understand that I may contact

Dr. Neill Watson with questions about the research at 221-3889 or npwats@wm.edu. I

am aware that I may direct questions about research participants' rights and report

dissatisfactions with any aspect of this research to the Chair of the Protection of Human

Subjects Committee, Dr. Michael Deschenes, at 757-221-2778 or mrdesc@wm.edu. I am

aware that I must be at least 18 years of age to participate. My signature below signifies

that I am participating voluntarily in this project and that I have received a copy of this

consent form.

_____   _____
Date   Signature

THIS PROJECT WAS APPROVED BY THE COLLEGE OF WILLIAM AND MARY
PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON
2008-09-10 AND EXPIRES ON 2009-09-10.

APPENDIX D

DEBRIEFING FORM

Thank you very much for your participation in this research. The purpose of the study is to understand the relationship between a person's self-perceptions and the emotions of anxiety and depression. We expect the results to improve our knowledge of how to alleviate these emotions.

If you are interested in the results of the study, we expect that they will be available in 2008 or 2009 at the website http://www.wm.edu/research/watson or by e-mailing Dr. Neill Watson at npwats@wm.edu.

Please do not tell potential participants about the study because their knowledge of its purpose may bias their responses to the questionnaires in a way that influences the results.

Do you have any questions?

We want all participants in this study to have the following information:

Participating in research like this can sometimes bring up difficult feelings. The study required you to answer many questions about yourself. If you feel concerned or distressed after completing the study, we want to make sure that you have a resource for assistance.

The study included a question about whether you have recently had any thoughts about committing suicide. If your answer was yes, or if you found yourself marking answers to other questions that indicated that you are experiencing extreme feelings of sadness, pessimism, guilt, anxiety, or worthlessness, it is possible that you are experiencing clinical depression. Again, we want to make sure that you are aware of resources for assistance.

The College of William and Mary Counseling Center
240 Blow Hall
221-3620

THE PROJECT WAS APPROVED BY THE COLLEGE OF WILLIAM AND MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON 2008-09-10 AND EXPIRES ON 2009-09-10.

VITA

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