CONTINGENT SELF-ESTEEM AND DEPRESSION:

AN INTERACTIVE ACCOUNT

by

HEATHER ANN O'MAHEN

Under the direction of Steven Beach

ABSTRACT

As rates of depression have increased, there has been an increasing focus on the prevention and relapse prevention of depression. Concurrent with these efforts, there has also been an emphasis on identifying specific risk factors involved in the onset of depressive symptomatology. The current project draws on recent research in the self literature to prospectively identify a risk model of depression. Utilizing a daily diary methodology over a period of one month, it was hypothesized that persons who had contingently based sources of self-worth would be at risk for self-definition and mood lability when they experienced stressful life events. In turn, it was anticipated that these changes would predict an increase in self-reported depressive symptoms. The results demonstrated that persons with high contingent self-esteem, when they encountered stressful life events, had greater negative change in their self-concept clarity, and had greater lability and overall level of daily negative mood. In turn, decreases in self-concept clarity over time predicted a prospective increase in depressive symptomatology. The implications of these results for future research and clinical practice are discussed.

INDEX WORDS: Depression, Contingent Self-Esteem, Contingencies of Self-Worth, Self-Concept Clarity, Risk, Prevention, Daily Diary Methodology

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DEDICATION

I would like to dedicate this dissertation to my mother, who has been my role model, inspiration, support, and best friend my entire life. I would not have thought to pursue this degree, nor had the tenacity to complete it, were it not for her.

As a child, my mother's shining stories of her adventurous and daring life sparked bravery and curiosity in me. I am still thrilled and proud to be the daughter of a woman who bucked a legion of strong family traditions and left rural Kansas in her early twenties to pursue her dream of working with Native Americans in New Mexico. It is also with the deepest respect that I acknowledge her selfless dedication to our family. I could have had no better example of compassion and love. My mother's life is a densely-woven, colorful tapestry, full of experience and emotion. She has shown me how to live boldly, aware of fear, failure and loneliness, but never afraid to face these evils. And, confronted with the negative onslaughts that life inevitably offers, I have tried to emulate her graceful, humble and forgiving responses. Because of her, I have lived fully and deeply. It is with great honor that I follow in my mother's footsteps, and can only hope to have the energy, continuing inquisitiveness, and capacity for growth that she never ceases to exhibit. I cannot begin to express my gratitude and continuing love to the woman who made this possible: my mother.

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INTRODUCTION

Depression has implicated itself into the emotional landscape for much of recorded history. As such, it has often been perceived as an expected, if aberrant, societal element. Recent epidemiological studies, however, report disturbing trends in both the increased incidence and earlier onset of depression over the last 100 years (Burke, Burke, Rae, & Regier, 1991; Weissman, Bruce, Leaf, Florio, & Holzer, 1991). Given depression's recurrent nature, these factors are particularly concerning and suggest that, unchecked, it will play a progressively widespread, negative role in the emotional, social, and economic milieu. In response to these changes, there has been an increasing focus in the literature on addressing the prevention of depression. Models that specifically explicate risk factors for the development of depression over time may inform prevention efforts as possible points of intervention. Using recent advances in the self literature, the present study extend previous research and examines how cognitive and emotional processes may unfold over time to predict risk for increases in depressive symptomatology.

Building a Case for Prevention: Current Trends in Depression

Clinical depression enacts a huge toll on those who suffer from it and those close to persons with depression. According to the World Health Organization, it is the leading cause of disability in countries with developed economies. Current estimates anticipate that, by the year 2020, depression will be the leading cause of disability worldwide. Nationwide, these increasing rates of depression are dramatic in nature. Although only 1% of individuals born before 1905 suffered an episode of depression (Burke, Burke, Rae, & Regier, 1991), recent epidemiological statistics indicate that the lifetime prevalence of depression in women is between 5-14% and in men is between 2-4% (NIMH, 2003).

These statistics are particularly concerning given the cyclical nature of depression (Weissman et al, 1999). Like a common cold, depression lies dormant, only to reappear at a later point in time. Indeed, the single greatest predictor of a future depressive episode is having been depressed previously. Within two years of a depressive episode, up to 40% will experience a second episode, 75% within five years (Kovacs et al, 1984a, b; Lewinsohn et al, 1994). In fact, once affected, current figures estimate that individuals spend between 15-20% of their lives laboring in the shadow of depression (Angst, 1986; Judd et al., 1998).

The average age of onset of depression is also decreasing, with women experiencing their first episode by age 27 and men by age 28 (Weissman, Bruce, Leaf, Florio, & Holzer, 1991). Figures from the National Comorbidity Study (NCS) show that 12-month prevalence rates of depression were highest in women in their late teens, men in their early 20's. In addition, recent research on children and adolescents suggests that persons at risk for depression often experience subsyndromal affective disturbances at a young age (Pine et al, 1999). Given that depression negatively affects multiple spheres, including school, work, interpersonal relationships and health, the impact of an earlier onset of depression on the developmental sequence is likely to be particularly problematic. Indeed, this is evidenced by the fact that earlier onset of depression places persons at increased risk for adult recurrent depression (Pine et al, 1999).

These figures point to the need for effective identification and treatment of individuals at risk for, and suffering from, depression. Although current treatments have been shown to be efficacious in reducing depressive symptomatology, they do so, on average, in only 50% of the cases (NIMH, 2003). More troubling, given the recurrent nature of earlier onset depression, is that chronic and treatment-resistant depression are commonly cited as more difficult forms of depression to effectively treat. As such, prevention and relapse-prevention efforts appear to be particularly prescient in their need. Consistent with these efforts, models that specifically explicate processes and mechanisms involved in changes in depressive symptomatology may serve to better inform preventative efforts. Such models should, ideally, focus on high-risk groups and developmental periods. Thus, the current investigation will focus on identifying depressive markers in a population at considerable risk for depression: late adolescent females.

Choosing a Model: The Research to Date.

The focus on prevention of depression is a relatively novel approach. To date, efforts have focused on developing and investigating the efficaciousness of treatments for depression, with some success. Amongst the empirically validated treatments for depression are: Cognitive Behavioral Therapy (Beck, Rush, Shaw, & Emery, 1979), Interpersonal Therapy (Weissman, Markowitz, & Klerman, 2000) and pharmacotherapy (Nathan & Gorman, 2002). Cognitive therapy has also been found to reduce relapse and recurrence of major depression (Blackburn, Eunson, & Bishop, 1986; Evans et al., 1992; Shea et al. 1992). However, it is unclear how cognitive therapy reduces the risk for future episodes of depression. Although it seems reasonable to suggest that a reduction in dysfunctional attitudes, as the main point of intervention, might be responsible for this change, this hypothesis has received little support (Barber & DeRubeis, 1989). Indeed, when cognitive therapy produced equivalent rates of improvement as pharmacotherapy, the two groups did not differ post-treatment on measures of dysfunctional attitudes, as assessed by the Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978; Simons, Garfield, & Murphy, 1984). Such results suggest that cognitive therapy, although an effective means of reducing depressive mood and symptoms, does so through mechanisms other than acting on the direct content of a depressed individual's thoughts. This perspective is supported by research examining the relative risk of having dysfunctional thoughts in prospectively predicting depression. Although a number of studies have shown that dysfunctional thoughts predict increases in depressive mood (Garber, Keiley, & Martin, 2002; Kendall & MacDonald, 1993), there is little evidence supporting the notion that dysfunctional thoughts are trait-like structures that precede negative mood and place individuals at specific risk for experiencing such mood states (Ingram, Miranda, & Segal, 1998).

In response to this evidence, researchers have suggested that negative thinking, instead of preceding depressive mood, becomes accessible and activated in mildly depressive mood states (Persons & Miranda, 1992; Teasdale, 1998). That the strength of this relationship is particularly strong for persons who are currently depressed or previously depressed compared to persons who have never been depressed implicates sad or dysphoric mood specifically in the development of negative cognitive schemata (Gemar, Segal, Sagrati, & Kennedy, 2001). Ongoing exposure to negative mood has the potential to impact the information processing of the individual in powerful ways. Numerous studies have shown that negative self-relevant thoughts are overwhelmingly salient to depressed persons. Depressed individuals recall more negative than positive memories (Blaney, 1986; Ingram et al., 1994), pay preferential attention to negative information (Kuiper & Olinger, 1986), and overestimate the probability of negative events occurring (Kuiper, Olinger, & Martin, 1990). Non-depressed persons show the opposite pattern of responses, as do remitted depressives, until they are placed in a negative mood, at which point they begin to exhibit a depressive pattern of responding (Gemar, Segal, Segrati, 2001). These results suggest that a negative mood may act as the background against which depressive cognitions arise. The cognitions, in turn, appear to have a strong polarizing effect on the attention of depressed individuals, such that they are less aware of cognitions that are neutral or positive in nature.

How then, might cognitive therapy reduce risk of relapse, if not through changing the dysfunctional content of an individual's thoughts? In a recent theoretical proposal, Teasdale and colleagues (Teasale, 1997; Teasdale & Barnard, 1993; Teasdale, Segal, & Williams, 1995; Teasdale et al. 2002) asserted that cognitive therapy is efficacious to the extent that it changes the relationship the individual has to negative thoughts, rather than changing the thoughts themselves. They proposed that, during cognitive therapy, individuals learn how to relate to their thoughts and behaviors in a more functional fashion. This new relationship, in turn, changes the extent to which these negative thoughts impact the individual when that person experiences negative mood states. Thus, Cognitive Therapy works by teaching depressed persons how to become "de-centered," or how to gain a broader – metacognitive – perspective. In a study examining the validity of this argument regarding relative risk for relapse in newly recovered individuals who had received either pharmacotherapy or cognitive therapy for depression, those in the latter group showed less negative change in endorsing items on the DAS following a negative mood induction than individuals in the pharmacotherapy group. Furthermore, metacognitive perspectives have been found to have an important role in risk for future depressive relapse. For example, partially remitted depressed patients who had lower metacognitive awareness in recalled memories of negative cues than did age and gender matched controls. Importantly, metacognitive awareness was independent of depression level. Thus, persons at risk for depression, when presented with relapse-related situations, were more likely to show poorer evidence of metacognitive sets. Indeed, in a separate study, these persons showed prospective risk for onset of depression. Lastly, Teasdale et al. (2002) found that

Mindfulness Based Cognitive Therapy (MBCT), a therapy designed specifically to teach people to relate to their thoughts differently, significantly improved metacognitive sets for negative thoughts and reduced the risk of future relapse. These results suggest that the change in metacognitive perspective may mediate the relationship between cognitive therapy and depressive relapse. These changes, in turn, predicted risk for relapse over a 2-year period (Segal, Gemar, & Williams, 1999). In sum then, newer research suggests that negative cognitions alone are not the threat. Rather, negative cognitions are problematic to the extent that they: (1) become activated and accessible during a negative mood state and (2) polarize the individual, both cognitively and behaviorally.

These are important distinctions, and represent areas for potential refinement, both in forming and delivering cognitive therapy, and in identifying individuals at risk for the onset and relapse of depression. Simply put, a better understanding of the active mechanisms involved in preventing and treating depression improves the power of such models to address risk for depression. This may be particularly pertinent to prevention interventions, which tend to have small overall effect sizes, thereby reducing the probability of finding significant decreases in risk for depression. This was exemplified in a recent cognitive therapy based prevention for depression which reported relatively weak overall findings (Seligman, Schulman, DeRubeis, & Hollon, 1999). In the study, 231 at-risk participants, or those who were in the most pessimistic quarter of explanatory style, were randomly assigned to either a control group or cognitive group therapy treatment group for a period of 8-weeks. Following treatment, they were followed for a period of two years. Results indicated that persons in the treatment group experienced fewer episodes of generalized anxiety disorder, but did not have significantly fewer episodes of depression. The treatment group also showed greater improvements in explanatory style, hopelessness and dysfunctional attitudes. These changes, in turn, mediated the relationship of the treatment with subsequent depressive symptoms. However, the null results suggested that these decreases may not have been powerful enough to prevent depressive episodes per se.

In sum then, although cognitive therapy has been shown to be an efficacious treatment of depression, the fashion through which improvements occur is as yet unclear. Recent models suggesting that cognitive therapy changes the way people relate to their cognitions appears to have some validity in explaining how cognitive therapy may result in improvements in depression and a reduced risk for relapse. However, further research examining the specific mechanisms involved in the onset and perpetuation of negative and depressive mood are needed. The current study, in drawing on recent advances in the self literature, seeks to address this issue.

Foundations for Risk: The Self Within the Social Landscape.

Risk for developing influential negative cognitions appears to be strongly linked to thought processes that occur during negative mood. Although negative mood per se is a normal life event, the difference lies in distinguishing between normal, transient mood and negative mood states in which negative cognitions become activated and exert a polarizing effect on the individual experiencing them. Who then, might be at particular risk for experiencing such states of mind?

To understand risk for these mood states involves understanding the foundations on which individuals develop a sense of self. In turn, it is this self who perceives and processes information regarding the environment, his or her status within that environment and relative to others, and therefore, his or her relative worth as an individual. This model assumes then that individuals have a set of goals that are socially derived and based, a thesis that has received considerable empirical support (Festinger, 1954; Gollwitzer, Wicklund, &

Hilton, 1982; Greenberg, Solomon, Pyszczynski, & Rosenblatt, 1992). In this model, an individual's identity is determined by how that person performs relative to others. Thus, the self-definition of individual attributes is measured against ratings of others' attributes along these similar dimensions. For example, Alekssandra may, amongst her many attributes, feel that she is a good cook. How does she know if she is a good cook? If her food tastes good, then she may assume she is okay. If others comment that her food is good, then she may begin to feel that her cooking is rather good. If she and others feel that her food tastes better than the food of others, then she may begin to believe that she is a very good cook. It follows then that the relative strength of any individual's belief is largely determined by how that person performs in comparison to others. As such, the self is necessarily socially based and subject to external feedback (Festinger, 1954; Wood & Taylor, 1991).

The socially dependent nature of the self has both benefits and negatives. To the extent that such an orientation promotes the internalization of culturally valued mores, individuals within a given society should adopt and strive to achieve culturally esteemed goals and objectives. In this way, the social basis of the self not only provides individuals with a source for goals, it also promotes the structure, coherence and strength of a given culture. This perspective also assumes, however, that individuals will internalize at least some of the goals of the culture. This internalization process promotes a certain level of group or individual independence, allowing the individual to be relatively free of the fluctuating and often ambiguous, social environment. The balance subsequently rests between the individual and the social context. Ideally, one should be neither entirely dependent on the social environment for feelings of self-worth, nor should one be entirely dependent on it. The former individual is one whose emotional well-being rests tenuously on the fluctuating and unpredictable social environment. Such an individual may, as a result of the possibility of receiving feedback that is discrepant with his or her socially contingent goals, be at increased risk for experiencing lability in both their self-view and mood.

There is considerable empirical support for the notion that discrepancies produced through the inherently social orientation of the individual result in negative mood (Lynch, Robins, Morse, 2001). Persons who place a greater emphasis on achieving personal worth through their social relationships have been found to be at risk for experiencing negative mood when they encounter social rejection. In turn, the clinical literature has illuminated the role of stressors, particularly interpersonal stressors, in the development of depression. To the extent that stressors may be conceptualized as discrepancies between desired goals and current environmental stressors (e.g., "I would like to have a relationship with that person, but s/he is interested in someone else), such evidence is directly consistent with the hypothesis that depression arises, in part, when individuals experience discrepancies (Brown & Harris, 1978; 1982; Brown, Harris, & Hepworth, 1995). Both the overall magnitude of the discrepancy and the individual's perceived movement toward the goal have been shown to impact the resulting felt intensity of the emotion (Carver & Scheier, 1995). Thus, individuals who are particularly socially dependent should, by virtue of the fact that they have a less stable source of feedback regarding their progress in achieving their goals, be at greater risk for experiencing both negative mood and depression.

In sum, it is proposed that, as a function of their necessarily socially-dependent nature, people are at risk for experiencing negative mood and depression to the extent that they experience obstacles in achieving their goals. However, important to the current thesis is the hypothesis that certain individuals may be more likely to experience negative mood states and to endorse the negative cognitions that arise in these states. It deductively follows that persons who are relatively more dependent on the social environment for information regarding their self-worth will be more likely to attend to environmental cues and, consequently, be at greater risk to experience negative mood to the extent that the feedback they receive is discrepant in nature. Thus, as an individual increases in how much he or she depends on the social environment for a sense of self-worth, that individual is at risk for experiences more negative mood states.

Foundations for Risk: Self-Esteem and Depression

The aforementioned hypothesizes assumes, at its core, that the extent to which an individual experiences negative affect as a consequence of discrepancies between goals and feedback is linked to the impact such discrepancies have on that individual's evaluation of themselves, or their self-esteem (Rosenberg, 1979; Roberts & Monroe, 1999). Thus, as individuals navigate the social environment, they internalize certain values and goals, and these values and goals become inextricably linked to their sense of self. In turn, their evaluation of themselves, or their self-esteem, is determined by their effectiveness in achieving these self-related goals. The notion that an individual's self-esteem level is closely tied to that person's emotional well-being is a proposition that has received considerable empirical support. In this vein, low self-esteem has consistently been linked concurrently to depression, with depressed persons evidencing signs of lower self-evaluations than non-depressed, or never depressed persons (see Bernet, Ingram, & Johnson, 1993, for a review). However, prospective accounts of the relationship between self-esteem level and depression are less clear. Studies supporting the direct link between these two factors frequently fail to control for depression at the initial assessment, casting doubt on the explanatory power of self-esteem in predicting depression (Hokanson, Rubert, Welker, Hollander, & Hedeen, 1989; Lewinsohn, Hoberman, & Rosenbaum, 1988). Diathesis-stress models of the interaction of self-esteem and stressful life events also report mixed results, with some researchers reporting increased risk for depression in low self-esteem persons who experience high stress (Brown, Bifulco, & Andrews, 1990; Metalsky, Joiner, Hardin, & Abramson, 1993) and others failing to show a significant prospective interaction effect (Butler et al, 1994; Roberts & Gotlib, 1997). Although these later studies fall prey to difficulties in interpreting null effects, they do create some ambiguity regarding the predictive power of self-esteem in depression. Thus, although it seems reasonable to suggest that discrepant feedback will impact an individual's evaluation of themselves, and subsequently, their mood, the overall results are inconclusive. The extent to which an individual's self-evaluation and mood differs, then, may be a function of additional, more specific, factors.

Unstable Self-Esteem: Theories and Research Supporting a Risk Factor Model. Initial efforts in refining the concept of self-esteem have focused on the lability of individual self-evaluations. Lability of self-esteem is defined as the extent and magnitude of changes an individual experiences in his or her immediate self-worth across time (Kernis & Paradise, 2000). It is distinct from self-esteem level, which is associated with an individual's broader and more general feelings of self-worth. Typically measured as deviation scores across several days ratings of self-esteem, unstable, or labile, self-esteem is presumed to fluctuate as a function of evaluative events. Thus, unstable self-esteem is self-esteem that varies across time in response to external events (e.g., daily hassles). As such, labile self-esteem counters the notion that self-esteem level is generally trait-like in quality, and recognizes that some people may have relatively labile self-evaluations, or self-evaluations that fluctuate in accordance with the feedback they receive from the environment regarding their effectiveness in achieving internalized, valued goals.

Lability in self-esteem has been linked to increases in depressive mood across time. For example, in a recent study by Kernis, Whisenhunt, Waschull, Greenier, Berry, et al.

(1998), the interaction of self-esteem stability and daily hassles predicted increases in depressive symptoms, when assessed over a four-week period. That is, those persons who reported at Time 2 that they had experienced relatively more daily hassles over the last month and who also had unstable self-esteem were more likely to report more depressive symptoms at Time 2 than at Time 1. Roberts and Kassel (1997) replicated this effect, and found that the interaction between labile, or unstable, self-esteem and life stress predicted increases in depressive symptoms across a 2-month period. This effect was particularly pronounced for individuals who were initially low in depression. In addition, the predictive power of unstable self-esteem has been found to be a more potent predictor of depression than self-esteem level alone (Butler, Hokanson, & Flynn, 1994; Kernis et al. 1998; Roberts & Monroe, 1992). These findings hold in both shorter (30 days to 2 month) and longer (5 months) time frames. For instance, Butler, Hokanson, and Flynn (1994) reported that, in previously nondepressed participants, premorbid unstable self-esteem interacted with stressful events five months later to predict depression. These findings, in addition to Roberts and Kassel's (1997) results implicating unstable self-esteem in increases in depression amongst persons with previously low levels of depression, support the notion that unstable self-esteem is not merely a by-product of depression, but acts as a risk factor for increases in and new cases of depression. Lastly, although unstable self-esteem that is also high in level has been linked to anger responses (Kernis & Paradise, 2000) overall unstable self-esteem has been shown to uniquely predict depressive, but not anxious, effects across a 6-week period (Roberts & Gotlib, 1997). Thus, the sum of these findings point to unstable self-esteem as a relatively specific risk factor for depression.

Self-esteem lability may play a particularly important role in the development of depressive symptomatology to the extent that it creates an increased number of instances in which an individual may experience sad mood, and therefore, be exposed to negative cognitions congruent with sad mood. It follows then that, as the length of overall time spent in a sad mood increases, and length of time exposed to negative cognitions increases, then the relationship between these aspects should become increasingly stronger, creating the potential for polarizing effects.

Contingent Self-Esteem: A Risk Factor Model for Depression. Why though, are some persons at greater risk for having unstable self-esteem? It is the thesis of this proposal that self-esteem, as the result of an individual's evaluation of how effectively they are achieving their goals, is measured against the social context. In turn, the relative degree to which an individual is dependent on the social environment for his or her self-worth should predict the extent to which that individual is vulnerable to negative environmental feedback. Thus, self-esteem lability appears to be closely related to contingent self-esteem, or the relative dependence a given individual places on the social context for his or her self-worth.

Self-Regulation and Social Comparison in Self-Esteem. If people in general are dependent on the social environment, how do some come to be more dependent than others? Conceivably, over time, individuals accumulate information about themselves based on their performance relative to others. The quality of this information may be mediated, however, by consistency of the feedback received, the nature of the individual's goals, approaches and activities engaged in, and the quality of their interactions with others. Information that is consistent, self-determined, and marked by accepting responses from others has the potential to result in a set of core views about the self that are less dependent over time on the social environment for subsequent feedback. In contrast, inconsistent performance responses, poorly defined motivated goals, and rejecting social responses may create further confusion about the self and promote further reliance on the social environment for feedback. Both developmental pathways assume the need for social comparison. The former, however, projects a decreased dependency on the social environment for feedback regarding the self over time, while the latter predicts an increased reliance on social cues for pertinent information.

Self-Determination and Development of the Self. Theoretical support for the role of goals and motivations in building a core sense of self is present in Deci & Ryan's (1995) model of self-determination. They posit that individuals pursue goals for one of four reasons. The nature of these goals, in turn, either promotes or inhibits the development of a sense of self that is relatively independent of social feedback. For instance, persons who pursue activities in the name of extrinsic contingencies (e.g., the avoidance of punishment or the gain of reward) are said to utilize external reasons of motivation. Consistent with this view, persons who are motivated by either an attempt to escape a negative affective state (e.g., guilt, anxiety) or to live up to external standards, or "shoulds" are said to act for introjected reasons. These first two motivations, Deci and Ryan posit, involve poor levels of self-determination. Persons who utilize either extrinsic and introjected goals are particularly susceptible to social pressures. In addition, when they encounter disconfirming, or discrepant feedback, they have few internal resources with which to engage in self-esteem repair. They must consequently rely on the same social environment for affirmations of self-worth that has just delivered such punishing feedback.

In contrast, the individual who associates an activity with improving one's functioning and growth engages in identified self-regulation, a style that is reflective of considerably more self-determination than the previously mentioned styles. Lastly, maximal self-determined regulation, or intrinsic regulation, is performed specifically because of the pleasure and enjoyment inherent in the activity. According to self-determination theory then

(Deci & Ryan, 1991), optimal functioning is the result of employing both identified and intrinsic self-regulatory styles. Such individuals interact with the social environment in importantly different ways than individuals with extrinsic and introjected goals. Conceivably, persons with identified self-regulation, when they receive discrepant feedback from the environment, perceive that as reflecting a lack of growth or improvement in one's functioning, rather than an indication that one is lacking or failing in some regard. Persons with intrinsic regulation may be particularly resilient to the impact of negative or discrepant feedback, in that the goal is process, rather than outcome, related and such feedback may be perceived as consistent with the process of engaging in the task, rather than as discrepant with the goal itself. Thus, the identified and introjected forms of self-regulation reduce the impact of feedback to the extent that they reduce the absolute magnitude of the discrepancy of the feedback. Furthermore, from a developmental standpoint, such goal orientations build an autonomous, positive "core" self-identity that, by virtue of its independent, process-oriented nature, is increasingly less sensitive to negative external feedback, and therefore, less susceptible to negative mood.

In contrast, the utilization of external and introjected self-regulation, Deci and Ryan hypothesize, contributes to a self-view that is highly contingent on social feedback. Thus, this socially dependent from of self-esteem theoretically results from employing reasons for actions that are external to the individual, either in the form of the properties inherent in the task (e.g. reward and/or punishment), or in the form of societally and affectively based reasons.

Initial results support these hypotheses. Persons utilizing extrinsically based goals have been found to report greater levels of anxiety, dysphoria, poorer health and coping, and lower self-actualization than persons who utilize intrinisically based goals (Kasser & Ryan, 1993; 1996). Furthermore, the differences in utilizing these goals has been linked to changes in daily mood and social functioning (Kasser & Ryan, 1995; Sheldon & Kasser, 1993).

The relative utilization of these goals is, notably, not static, but develops dynamically in conjunction with the environment. Thus, performance contingent environments, particularly when they are moderated by a controlling interpersonal style, are relatively more likely to promote the development of extrinsically based goals (Deci & Ryan, 1995; Ryan, Mims, & Koestner, 1983). Both laboratory and naturalistic studies support the hypothesis that environments that promote self-efficacy, or personal control over outcomes, and allow the individual to perceive that their competence is intrinsically, rather than extrinsically, based enhances the development of autonomous, authentic self-identies (Deci & Ryan, 1991; Grolnick & Ryan, 1989; Ryan, 1993).

This theoretical framework is broadly consistent with classic notions of the positive developmental impact of unconditional positive regard, and the literature on self-efficacy (Bandura, 1977; 1989), and promotes the notion that environments that create these conditions result in positive self-determined identities. In turn, persons with intrinsic and identified goals interact with their environments in a fashion that promotes psychological health relative to those with extrinsically based goals.

This theoretical framework also suggests that certain individuals, as a consequence of the orientation of the goals they employ, will be at increased risk for relying on the social environment. Given the unpredictable, variable nature of such an environment, these persons should also have less stable self-concepts. Initial results support this thesis. In a study examining the self-regulatory styles and subsequent affective experiences in persons with unstable self-esteem, Kernis, Paradise, and Whitaker (2000) reported that individuals with unstable self-esteem were more likely to endorse external goals, and less likely to use identified and intrinsic self-regulation. Furthermore, in a separate study examining the relative use of identified and intrinsic goals, conceptualized as "authentic needs," persons higher in these needs had lower levels of contingent self-esteem and negative affect (Goldman & Kernis, 2002).

This perspective on self-regulatory style suggests one potential mechanism through which socially dependent forms of self-esteem may be both created and perpetuated. To the extent that an individual is dependent on their social environment for feedback regarding the self, that individual should also be susceptible to changes in overall self-evaluation and subsequent negative mood. In this vein, conceiving of the relative external dependency of self-esteem suggests a more specific mechanism in which to explicate the link between self-evaluation and mood.

Contingent Self-Esteem. Consistent with the notion that people may differ in the extent to which they depend on their social environment for information about their well-being, researchers in the area of self-esteem have recently attempted to validate measures assessing the extent to which self-esteem is contingently based (Crocker & Wolfe, 1999; Deci & Ryan, 1995). Primary to this theoretical framework is the notion that persons with contingent self-esteem have self-views that rest precipitously on external conditions. Their overall level of self-esteem is illusive. Whether they feel positively, or have high self-esteem, is primarily a product of their ability to meet certain contingencies. If they are consistently able to do so, then their self-reports on traditional measures of self-esteem (e.g., Rosenberg Self-Esteem Scale, 1965) will reflect, at face value, high self-esteem. Such reports, however, are qualitatively misleading, for the individual with contingent self-esteem is at risk for losing their tenuous hold on a positive self-view when their performance does not meet with their desired outcome. Negative events, feedback, or stressors will therefore have a different impact on persons high on contingent self-esteem than on persons low on contingent self-esteem, with the former experiencing a relatively greater drop in self-esteem and/or mood than the latter. This sensitivity to external conditions thus has the potential to result in unstable self-esteem and an increased incidence of sad mood (Crocker & Wolfe, 1999, Kernis & Paradise, 2000).

Although the concept of contingent self-esteem is not new (see James, 1890), empirical measurement of it is. The existing research is promising, however. For example, in an initial study (Crocker, Sommers, et al, 2000) of contingent self-esteem, persons whose self-esteem was highly contingent on school competency showed greater fluctuations in their self-esteem on days when they received either acceptance or rejection letters to their school(s) of choice. These fluctuations in self-esteem, in turn, mediated the relationship between the interaction of contingent self-esteem and stress on changes in depressive symptomatology.

Thus, the current model assumes the following: persons whose self-worth is contingently based at particular risk for experiencing changes in their self-view and in their mood because their source of feedback (the social environment) is particularly unpredictable and unforgiving. The resulting equation is, simply, unpredictable, fluctuating feedback will result in greater opportunities for negative discrepancies, thereby resulting in greater opportunities for negative changes in one's self-view and one's mood. In turn, the increased exposure to negative mood may be particularly unfortunate to the extent that negative cognitions become activated, and develop in strength and accessibility.

Cognitions and Self-Concept Clarity. The cognitive path awaiting the individual with contingent self-esteem is perhaps uniquely slippery. One, overall self-evaluations change and shift at a more variable rate than in individuals with true self-esteem when persons high in contingent self-esteem encounter disconfirming, stressful feedback (Deci & Ryan, 1995; Kernis, & Paradise, 2000). These more frequent shifts give rise not only to increased instances of sadness, but the cognitions associated with sadness (Teasdale & Barnard, 1993). Yet, where might persons high in contingent self-esteem turn to repair their self-evaluations and exit the self-regulatory cycle that has produced this negative mood? By virtue of the externally based orientation of such individuals, it is unlikely that they have additional internal resources they may use to engage in such self-affirmational processes (Steele, 1997; Tesser, 2001). This hypothesis does not suggest that individuals high in contingent self-esteem do not have complex self-identities (Linville, 1990). Rather, it suggests that these identities are socially based as well, and may be relatively ineffective sources of self-affirmation. Thus, individuals high in contingent self-esteem may be forced to seek reparation from the very environment that has just punished them. When a drop in self-esteem occurs as a result of this external dependence, such persons are more likely to be sensitive to social cues and susceptible to influence attempts (Brockner, 1984; Campbell, Chew, & Scratchley, 1991). As such, they are at risk not only for experiencing a greater number of negative mood episodes, but, by virtue of having poor self-affirmational resources and being subsequently unable to exit the discrepant cycle, an increased length of exposure to the negative mood. These continued negative mood states, in turn, create opportunities for continued exposure to and activation of negative cognitions, cognitions that may be supported by the environment (Teasdale & Barnard, 1993). As the connections between mood and cognitions becomes stronger, mood states have the increasing potential to polarize, or "center," the individual's thoughts (Teasdale et al. 2002). To the extent that this occurs, significant cognitive competition between negative and positive schemas may arise, leading to confusion regarding the validity of one schema over the other. In a study supporting this hypothesis, MacDonald and Kuiper (1995) found that clinically depressed persons exhibited rapid processing of negative self-relevant material only. In contrast, non-depressed persons showed the opposite pattern; they rapidly processed and responded to positive self-relevant material only. Mildly depressed persons, however, showed a particularly inefficient processing pattern – they processed both negative and positive information equally slowly, suggesting that their effortful processing of affectively-valenced material was indicative of uncertainty and confusion surrounding their view of self. Furthermore, MacDonald and Kuiper proposed that this relative attention to both positive and negative information resulted in poorly consolidated schemas. These results suggest then, that negative mood, as it gives rise to increased accessibility to negative cognitions, has the potential to create self-concept confusion in persons to the extent that they attend to such cognitions. It is further hypothesized that persons with high contingent self-esteem are at particular risk for attending to such cognitions given the unstable, externally-oriented nature of their self-concepts. That is, given that such persons may place equal importance on all externally based sources of information, these persons should be at risk for attending to and endorsing negative cognitions. As a result, they should be at increased risk for experiencing decreases in self-concept clarity.

The Consequences of Low Self-Concept Clarity. This model assumes then that it is not negative cognitions themselves, but poor clarity regarding the self that leads to increases in depressive symptomatology. This relationship is hypothesized to occur as a consequence of the motivational and behavioral changes that change as a function of self-concept confusion. To date, the literature on self-concept clarity has linked it to a number of behavioral indices closely related to risk for depression. Persons low in self-concept clarity report higher levels of Neuroticism and lower levels of Conscientiousness. Importantly, they also report higher levels of rumination, suggesting that this latter process serves as a means of ineffectively trying to solve the negative dilemma persons low in self-concept clarity find themselves in. This pattern of behavior also suggests that persons low in self-concept clarity are subsequently less likely to engage in proactive, goal-directed, non-impulsive actions underlying the maintenance of a clear and positive view of the self. Instead, they are more likely to behave in a reactive manner involving emotion-focused, avoidant coping (Campbell et al. 1996). These actions increase the probability that persons low in self-concept clarity will make self-serving decisions, and instead place themselves in circumstances that are inconsistent with their own unstable self-concept (Setterlund & Niednethal, 1993). Such environments, in turn, fail to verify positive aspects of the self (Swann, 1990; Swann, Wenzlaff, Krull, & Pelham, 1992), and may also reciprocally enforce negatively activated cognitions.

Thus, the current model suggests the following components leading up to risk for depression: (1) persons with high contingent self-esteem, to the extent that they depend preferentially on the social environment for their sense of self worth, are particularly likely to experience negative mood than those low in contingent self-esteem when they encounter discrepant, or stressful events; (2) such persons are also at risk for experiencing more lability in their self-evaluations; (3) as a function of their poorly defined identities and their reliance on the social fluctuating environment for feedback regarding their self-worth, persons high in contingent self-esteem are also at risk for experiencing greater self-concept confusion. This may be particularly likely to the extent that negative mood states activate negative cognitions and contribute to confusion regarding the self; (4) this self-concept confusion, in turn, will predict depressive symptomatology.

Hypotheses

The current study involves three separate phases. Within each phase, several predictions hold. These predictions and the theory underlying them are examined within each phase.

Hypotheses Set One: The Relationship of Mood to Contingent Self-Esteem. Regarding emotional constructs, contingent self-esteem was expected to be positively related to depressive symptomatology. Exploratory analyses examining the potential relationship between contingent self-esteem, anxiety and body-image disturbance will also be conducted, although it was anticipated that this latter construct would be specifically related to the body image subscale of the contingent self-esteem scale.

Hypotheses Set Two: Time 1 Analyses of the Relationship of Contingent Self-Esteem, Stress, and Self-Concept Clarity to Depressive Mood. It was anticipated that the relationship of contingent self-esteem to depressive mood at Time 1 would be moderated by stress. In turn, to the extent that stress destabilizes perceptions of the self, hypothesized that this interaction would predict self-concept clarity, and that self-concept clarity would in turn, mediate the relationship between the interaction of stress and contingent self-esteem and depression. That is, individuals who were high in contingent self-esteem and who experienced a greater number of stressful events should have greater confusion regarding the self, and this confusion was anticipated to result in greater depressive symptomatology.

Hypotheses Set Three: The Prospective Impact of Contingent Self-Esteem and Self-Concept Clarity on Self-Esteem and Mood. A growing body of literature suggests that unstable self-esteem is related to a self-concept that is fragile and reactive in nature (Kernis & Paradise, 2000). It follows that, to the extent that contingent self-esteem is susceptible to the influence of stressful events, instability in an individual's self-evaluation and self-concept will result.

Accordingly, it was hypothesized that the interaction of contingent self-esteem and stress would predict self-esteem lability and prospective changes in self-concept clarity. Self-esteem lability, in representing daily fluctuations in the level of an individual's self-evaluations, may have an important role in creating confusion about the self. It may therefore mediate the relationship between contingent self-esteem and stress on self-concept clarity (see Figure B.1).

To the extent that the individual high in contingent self-esteem is particularly apt to be focused on external sources for information about the self, then that individual is potentially more likely to be aware of external negative feedback and the discrepancy between personal goals and conflicting evidence regarding progress toward those goals. As a result, such persons should be at specific risk for experiencing the negative mood associated with realized discrepancies between goals and environmental feedback. It was therefore hypothesized that persons high in contingent self-esteem, when they experience stressful life events, would be at risk for increases in both negative and depressive mood (see Figure B.2).

In the final model, the following predictions are made: (1) the interaction of contingent self-esteem and stress at Time 1 would predict self-esteem lability. It was specifically hypothesized that self-esteem would be unstable when persons high in contingent self-esteem experienced stress (2) Persons high in contingent self-esteem, when they experienced a stressful event, would report greater overall levels of daily negative mood. (3) In turn, this relationship was expected to be mediated by self-esteem lability. (4) negative mood was expected to lead to changes in self-concept clarity. (5) These changes were then expected to result in increases in depressive symptomatology at Time 2 (see Figure B.3). In sum then, the unfolding picture is as follows: as persons high in contingent self-esteem experience stress, they will also experience a destabilization in their overall self-esteem. This destabilization, theoretically, would result in an increase in daily negative mood and an overall decrease in self-concept clarity. To the extent that the individual's self-concept does become increasingly confusing and unclear, that person was then expected to be at risk for negative changes in depressive mood.

Hypotheses Set Four: Relationships Between Self-Esteem Measures. Both the concept and measurement of contingent self-esteem is relatively novel to the self-esteem literature. As such, the relationship between contingent self-esteem and other forms of self-esteem is not yet clear. In an effort to examine both the convergent and discriminant validity of the Contingencies of Self-Worth, several hypotheses were proposed. In particular, it was expected that contingent self-esteem would be moderately correlated with self-esteem level and self-esteem lability. Specifically, contingent self-esteem was expected to be negatively correlated with self-esteem level and positively correlated with self-esteem lability. Contingent self-esteem should also be moderately and positively correlated with the measures of social self-esteem, reflecting the external nature of contingent self-esteem. Higher correlations were expected for the subscales of "other's approval," and "social identity" with measures of social self-esteem than with the other scales of the Contingent Self-Esteem scale. Contingent self-esteem was also expected to be moderately and negatively correlated with self-concept clarity, reflecting the independent but related nature of these two constructs.

METHOD

Participants

442 female participants attending a large Southeastern University completed the first portion of the study, by responding to a series of questionnaires administered via the internet. Participation in the daily and follow-up assessments was voluntary. Of the original 442 participants, 291 (65%) elected to participate in these latter portions of the study. A total of 225 (51%) persons completed all three portions of the study. All participants received partial course credit for each section of the study they elected to participate in.

Regarding the overall composition of the sample, the modal age range (58%) of participants was between 18-20 years, an additional 32% of the sample were between 20-23 years, suggesting that the sample was primarily composed of older adolescents and young female adults. Of the original participants, 81% self-identified as “Causcasian,” 8.4% “African-American,” 5.2% “Asian-American,” 2.3 “Hispanic-American” and 2.6% “Other.” Participants reported an average income between <$10000 - $15000, with 78% reporting an income of <$10000. Participants were, on average, from upper middle class backgrounds. 66% reported parental yearly income of greater than $50000.

Self-reported information on psychiatric history was also gathered. Paralleling epidemiological studies, 10% of the women reported they had been diagnosed by a professional (e.g., Ph.D., M.D., R.N.) with depression at any point in their lives. 23% of the sample, however, reported having suffered at least one episode of depression. Of this portion of the women, 35% reported they had suffered from one episode of depression, 31% from two, 12.5% from three, and 21.5% from 4 or more, suggesting that (65%) of women in this young age range who had experienced a first episode of depression had already experienced recurrent episodes. Although these figures are clouded by issues of self-diagnosis, data on the reported number of times women sought out and received treatment provides some additional insight into the nature of depression in this sample. In all, 61% of women reporting at least one episode of depression reported they had been treated for depression once, 29% twice, 6% three times, and 2% four or more times. Thus, recurrent treatment for depression appeared in between 37-65% of the 23% of the women in this sample who reported having suffered from an episode of depression. The strong familial presence of depression in both immediate 24% and extended 30% was also reported by women responding to this survey.

Measures

Self-Esteem. Several measures of self-esteem were utilized. Global self-esteem was measured using the Rosenberg Self-Esteem scale (RSE; 1965), a 10-item measure concerning an individual's evaluation of him or herself. Responses to this scale on the first and follow-up portions of the study were made on a 5-point Likert scale 1(Strongly Agree) to 5 (Strongly Disagree). During the daily portion of the study, participants were asked to complete a modified version of the RSE, drawn from methodology employed by Kernis et al. (1998). For each item, anchor points of *strongly agree* and *strongly disagree* were separated by 10 dots. Participants were asked to mark the dot that best described how they felt at the exact moment they were responding to the sheet.

The Contingencies of Self-Esteem scale (CSE; Crocker & Wolfe, 2001), a 33-item measure of domain specific self-esteem, and the Texas Social Behavior Inventory (TSBI; Helmreich, Stapp, & Ervin, 1974), a 16-item measure of social self-esteem were also employed. The Contingencies of Self-Esteem scale consists of nine subscales: other's approval, appearance, God's love, family and friends, power, self-reliance, social identity, virtue, and school competence. These domain specific areas in which self-esteem may be garnered were derived from a college sample, and are thus reflective of the types of domains college students find relevant to their self-worth. Both the CSE and the TSBI were administered during the first phase alone.

Lastly, an expanded version of the Self-Concept Clarity Scale (SCC; Campbell, Trapness, Heine, Katz, Lavallee, et al. 1996) was used as a measure of self-esteem certainty. The original SCC consists of twelve items anchored on a 7-point Likert scale. The scale has good internal consistency (α = .85) and test-retest reliability over a 3-year period (.79). The scale was expanded to include 15 bipolar adjective pairs that participants were asked to rate themselves on. After completing these ratings, participants were asked to indicate their degree of certainty on each self-rating. This methodology is drawn from ongoing work on self-concept clarity (Campbell, 1990). The SCC was administered during both the first stage and at the end of the second stage.

Stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), a 14-item measure of an individual's appraised stress in reaction to life events was employed to assess global stress reactions during the pre-test portion of the study. The PSS has been shown to have good internal consistency (α = .85) and adequate reliability.

More specific measurements of stressful events were assessed with the Inventory of College Students' Recent Life Experiences (ICSRLE, Kohn, Lafreniere, & Gurevich, 1990). The ICSRLE is a 49-item measure comprised of seven factors (developmental challenge, time pressure, academic alienation, romantic problems, assorted annoyances, general social mistreatment, friendship problems) representing stressful events that are common to college students. The ICSRLE measures exposure to hassles, rather than individual appraisals of the events. In addition, the ICSRLE is relatively free of items indicative of subjective distress, thereby reducing the contamination of this measure with measures of psychological symptomatology. The ICSRLE has been shown to have good reliability ($\alpha = .89$) and convergent validity with the PSS (.67, $p < .0005$). The ICSRLE was administered during the pre-test portion of the study. The increased specificity of the ICSRLE allows for allows for an examination of events that may be uniquely related to areas of contingent self-esteem.

Lastly, during the daily diary stage, participants were asked to respond to item categories pertaining to the most positive and most negative experience of the day. These categories are, for the negative experiences: problem with close other (non-family member), financial, academic or occupational problem, conflict with family, and other, and for the positive event: academic, occupational or self success; positive experience with close other or family, and an "other" category. Their responses were assessed with attention to both the event itself and a question asking them to assess the extent to which the event impacted them that day. This methodology was previously employed in a daily dairy study by Greenier, et al. (1999).

Mood. Depressive symptomatology was assessed using the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report measure, anchored on a four-point scale of severity of symptomatology over the previous week. In the general public, the CES-D has demonstrated good internal consistency ($\alpha = .84$) and split-half reliabilities ranging from .77 to .92 (Corcoran & Fisher, 1987). There is some evidence to suggest that the CES-D is more effective at discriminating differences in depressive severity than the Beck Depression Inventory (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995). The CES-D was administered during both the pre-test and follow-up phases of the study.

Transitory positive and negative mood was assessed using the Positive and Negative Affect scale (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS is a widely used 20-item measure of mood, shown to have adequate internal reliability and factor structure. The PANAS was administered during the pre-test phase and throughout the daily diary stage.

Given the high rates of comorbidity between depression and anxiety (Mineka, Watson & Clark, 1998), anxious symptomatology was measured. The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1983**),** a 40-item measure, was employed to assess anxious symptomatology. The STAI has been shown to have adequate factor structure (Spielberger & Vagg, 1984), and excellent internal consistency for both the State Anxiety scale (α = .92) and the Trait Anxiety scale (α = .92). The STAI was administered in both the pre-test and follow-up phases of the study.

Eating disordered symptomatology was assessed via the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987). The BSQ is a 38-item self-report measure that assesses concerns about body shape, self-depreciation, and the experience of "feeling fat." The BSQ correlates highly with other measures of body dissatisfaction and successfully discriminates between women with bulimia nervosa and college students (Cooper et al., 1987). The BSQ was administered at the pre-test and follow-up portions of the study (see Table A.1 for an overview of measures used at each phase of the study).

Design

Internet Security. Due to confidentiality concerns specific to research conducted via the internet, several steps were taken to ensure the security of the data. First, as in traditional research, participants' names were stored separately of the data. At no time did participants receive information about the user identification codes they used via the same server or internet program to which they responded to the questionnaires. Thus, were an unauthorized person to gain access to the results, it is unlikely that individual would have been able to make meaningful sense of the data.

Secondly, the data was encrypted in a 128-bit secure socket layer (SSL) encryption as it was sent to the server. That is, the data, as it was transmitted, was translated into a specific mathematical code. This code ostensibly disconfigured the data. To “reconfigure” the data into a meaningful format the user needed both the specific mathematical algorithm and a private “key” or password. This process enhanced security by ensuring that, even were an unauthorized user to gain access to the data as it was transmitted over the internet, the data would appear in a virtually meaningless script; useless to the unauthorized third party.

Thirdly, state-of-the art “firewall” protection (IP chains) was in place on the server used. Functionally, “firewall” protection screens users attempting to gain access to the server. As authorized access is gained through an authentication process in which the user must enter a user identification code and password, “firewalls” screen for users who attempt to gain access without engaging in this process. Although this protection in an of itself may act as a deterrent to “hackers,” its reliability depends in part on the computer administrator’s awareness of ongoing attempts to access the server and to respond, both directly to the user attempting to access the server, and by determining and correcting potential security “holes.” This process is essential to ongoing security, as it is widely recognized in the computer industry that all security systems are imperfect and therefore subject to security breaches. As a result, the computer administrator for the project maintained ongoing security surveillance of the server.

Lastly, once the data was received by the server, it was further secured within a “chroot” type prison, where “chroot” stands for a specific secured location “off-line.” In this instance, the server acted as a user and moved data to a directory that the web server was unable to read. Thus, once within the "chroot" prison, the data was not accessible to persons attempting to obtain it remotely; it was only accessible to the system administrator, who accessed the data via a user identification code and password.

In sum then, the data was secured through several mechanisms: separate user ids, encryption, ensuring data security while being transmitted; firewall protection, securing the data once received by the server; and via a "chroot" type prison, which transferred the data "off-line." These steps, taken at each point of data entry, transmission and receipt, ensured a high level of security and confidentiality.

Pretest Phase. Participants were recruited to participate in a three-phase study conducted via the internet. During this phase of the study, they were asked to complete a series of psychological measures assessing the domains of interest: self-esteem, relationship satisfaction, perceived stress, mood, and interpersonal functioning.

Daily Response Phase. Following their completion of the first phase, participants were asked to participate in the second phase of the study, which involved responding to a short set of measures on a daily basis. All participants were asked to fill out the measures between 10am and 10pm. Participant's responses received via the web were time and date stamped to ensure that participants responded on a daily basis, rather than in bulk. They were asked to keep track of the daily diary for at least ten days during the two week period of two weeks. Although previous daily diary studies utilizing paper response formats reported poor rates of weekend completion (Kernis, 2000, personal communication), participants in this study reported an interest in being able to complete the daily diary portions during weekend and holiday breaks. Of the completing participants, seventy-three percent responded during the weekend.

Follow-up Phase. After completing the first stage, participants were advised that the last portion of the study would be scheduled for two weeks following the end of the two-week daily schedule. Participants were reminded about this day via email again two days prior to its introduction, and were given a three day time frame in which to complete this portion of the study. Participants were given partial course credit for their participation.

RESULTS

Analytic Strategy

The analyses were conducted in several stages. After first conducting general descriptive statistics, basic correlations between variables of interest, as outlined in hypotheses set one, were explored. In the second stage of analyses, concurrent relationships between variables were examined within a hierarchical regression framework. Thirdly, relationships between Time 1 data and prospective reports on both the daily diary and last phase measures were assessed. Given the interest in the relative role of each variable within the model to other variables included in this model, standardized coefficients (β) were reported. These steps are described in further detail in the subsequent sections. It should be noted that, given the multiple steps proposed in the original modal and the relatively novel nature of these constructs, portions of the model were first tested before examining the overall model. In the event that certain constructs in the model did not explain additional significant variation, these constructs were removed and the model was tested without them.

Hypotheses Set One. Significant relationships between variables were examined with Pearson's r.

Testing for Mediation. Using multiple regression, mediational analyses, as described by Baron and Kenny (1986), were be examined. Several criteria must be met in order for mediation to be shown. First, the predictor variable(s) must be shown to significantly predict the criterion variable. Second, the mediational variable must also be shown to significantly predict the criterion variable. Thirdly, when the mediational variable is entered into the equation with the predictor variable(s), the significance of the predictor variable(s) must either reduce to complete nonsignificance (in the case of full mediation), or show evidence of reduced significance (in the case of partial mediation). In the case that there was partial mediation, Sobel's (1986) method for testing the significance of the indirect effect was used. To do so, the standard error of the indirect effect, or $\sqrt{b^2 s_a^2 + a^2 s_b^2}$ was calculated. Standard normal theory will then be applied to determine the 95% confidence interval. If the confidence interval for the standard error did not include zero, the indirect effects, or mediation, were considered significant. For example, to test if self-concept clarity partially mediates the relationship between contingent self-esteem and stressful life events and depressive symptomatology, the following steps were performed. First, let a = the association (as measured by the beta weight) between the interaction of contingent self-esteem and stressful life events and self-concept clarity and let S_a = its standard error. Secondly, let b = the association between self-concept clarity and depressive symptoms and let S_b = its standard error. After subjecting the beta weights and standard errors to Sobel's equation, a confidence interval was derived. If the confidence interval did not include zero, attributions was be determined to be a significant partial mediator. This logic was applied in all cases testing for mediational effects.

Testing for Moderation. Secondly, moderation was tested in several of the hypotheses. In order to assess for moderation within a multiple regression framework, several steps must be performed. First, to reduce multicollinearity, all of the variables were centered. To center a variable, the mean of that variable was subtracted from each individual variable (X-μ). Then, each of the main effects were entered in the first step (e.g. contingent self-esteem and stressful life events). In the second step, the interaction effect was entered (e.g. contingent self-esteem by stressful life event). In order to explicate the interaction, Aiken and West's (1991) procedure was followed. Three steps are necessary to probe the interaction. First, a new variable was created (e.g. Stress-Low). This term represented the individuals score on a given measure plus one standard deviation from that score. In the second step, the crossproduct of the new variable (e.g. Stress-Low) with the predictor score (e.g. CSE) was created. In the last step, the criterion (e.g. CES-D) was regressed on the predictor (e.g. COSE), the new variable (e.g. Stress-Low) and the crossproduct of these variables (e.g. CES-D-Low x COSE). The parameter estimate (β) of the predictor variable (e.g. CSE), when significant, indicated that the relationship between that variable and the criterion variable (e.g. CES-D) was significant at low levels of stress.

A similar process was performed to examine whether the relationship between the predictor variable and the criterion variable was significant at high levels of the moderating variable. To do so, a new variable was created (e.g. Stress-high). This variable reflected the moderating variable minus one standard deviation. As in the previous example, the cross product of this new variable with the predictor score (e.g. COSE) was then computed. In the third step, the criterion variable (e.g. CES-D) was regressed on the new variable (e.g. Stress-high), the predictor variable (e.g. COSE) and the cross-product of the new variable and the predictor variable (COSE x Stress-High). When the parameter estimate of the predictor variable was significant, then it was assumed that there was a significant relationship between the predictor and criterion variables at high levels of stress.

Lability Analyses. The daily diary approach was analyzed in the following fashion. Consistent with Greenier et al.'s (1999) approach, self-esteem lability was assessed by determining the within-subject standard deviations of self-esteem scores across each assessment point. Larger scores of standard deviation be were representative of greater self-esteem lability. Mood lability was assessed in a similar fashion.

Prospective Analyses. To test changes in constructs across time several steps were taken. First, a residualized score was created by regressing scores on a given variables at Time 2 onto the scores of that variable at Time 1. When examining change in a given model, both the original score at Time 1 and the residualized score were entered. This analytical strategy was adopted as the residualized scores partialled out the variance accounted for by self-concept clarity at Time 1 and are not confounded by rate of change issues that affect absolute change scores (Pedhauzer, 1997).

Initial Hypotheses: Descriptives and Zero Order Correlations between Self-Esteem Measures and Measures of Mood

Descriptive statistics are provided in Table A.2. The concurrent relationships between measures of mood and the constructs of contingent self-esteem, self-esteem lability, and self-concept clarity at Time 1 were also examined and are presented in Table A.2. As predicted, contingent self-esteem was positively correlated with depression at Time 1. It was also positively correlated with mean levels of daily negative mood and negative mood lability, although the relationship between contingent self-esteem and levels of daily positive mood and positive mood lability were not significant. The zero-order correlation between contingent self-esteem and depression at time two was not significant. However, the partial correlation of this relationship, when accounting for negative life events, was significant. In order to address the specificity of contingent self-esteem in predicting different mood states, correlations with anxiety and body image disturbance were also conducted. Results revealed that contingent self-esteem was not correlated with anxiety at either Time 1 or Time 2. It was, however, positively related to body image disturbances at time one. This relationship was not maintained across time, even when accounting for stressors.

There was a moderate, positive correlation between self-esteem lability and depression at Time 1 (see Table A.2). This relationship was significant, if somewhat weaker, when depression at Time 2 was used as the dependent variable. Replicating previous research, self-esteem lability was negatively related to mean levels of daily positive affect and positively correlated with mean levels of negative daily affect. Interestingly, self-esteem lability was positively correlated with lability in negative mood, but was unrelated to lability in positive mood. This suggests that as evaluations about the self become less stable, negative mood, but not positive mood, likewise varies. Lastly, there were no significant correlations between self-esteem lability and either state or trait anxiety measured at both Time 1 and Time 2. However, self-esteem lability was positively correlated with disturbances in body image at Time 1, but not at Time 2.

Lastly, the relationship between self-concept clarity and measures of mood were examined (see Table A.2). At Time 1, self-concept clarity was positively correlated with depression, but not with state or trait anxiety or body image disturbance. Self-concept clarity was also associated with mean daily levels of both positive affect and instability in positive affect, although it was not related to mean daily levels of negative affect level or stability. Self-concept clarity, when measured at Time 1, was not significantly related to any of the mood measures at Time 2. However, when measured concurrently with the other mood measures at Time 2 it was positively related to depression, body image disturbance and state anxiety. In addition, later self-concept clarity was negatively related to mean levels of daily negative mood, but unrelated to daily positive mood or mood lability.

Initial Tests of the Model: Does Self-Concept Clarity and the Interaction of Contingent Self-Esteem and Stress Predict Depression at Time 1?

To test whether self-concept clarity mediated the relationship of the interaction of contingent self-esteem and stress with depression, three separate regression equations were computed. Results are presented in Table A.3. Consistent with expectations, stress moderated the relationship of contingent self-esteem to depression at Time 1. The interaction effect also significantly predicted self-concept clarity. Thirdly, self-concept clarity predicted depressive symptomatology. In a test of the overall model, self-concept clarity added unique variance in predicting depressive symptomatology, but did not mediate the relationship between the interaction of contingent self-esteem and stress with depression.

To explicate the interaction effect within the complete model, dummy variables for the significant main effect of stress were created by both subtracting (stress-high) and adding (stress-low) one standard deviation from individual stress scores. Two new interaction terms were then created between each new dummy variable and contingent self-esteem (i.e., contingent self-esteem x stress-high). The criterion variable, depression, was then regressed onto the dummy variable, contingent self-esteem and the new corresponding interaction term. The relative slopes of the simple main effects of stress within level of low ($\beta = .106$, NS) and high ($\beta = .506$, $p < .001$) provide support for the hypothesis that high contingent self-esteem places an individual at particular risk for experiencing depressive symptomatology when experiencing stress. In contrast, persons low in contingent self-esteem experienced non-significant increases in depressive symptoms even when faced with increasing stressors.

Testing the Prospective Impact of Contingent Self-Esteem on Self-Concept Clarity and Self-Esteem.

Although these preliminary results are promising, they were measured concurrently. As such, the temporal relationship of the variables to each other is unclear, thereby limiting the overall explanatory power of the model. The destabilizing effects of the interaction of contingent self-esteem and stress on the self were of particular interest and most appropriately examined within a longitudinal model. To test these effects then, two separate hierarchical regressions were conducted. The first explored the impact of the interaction effect on self-esteem lability; the second on prospective changes in self-concept clarity.

To test the impact of contingent self-esteem and stress on self-esteem lability, lability, defined as the standard deviation of daily reported self-esteem scores, was regressed onto the predictor variables in Step 1 and the interaction effect in Step 2. The results indicated that the interaction term did not significantly predict lability in self-esteem as measured in this study (β = -.089, NS)[1].

The interaction of contingent self-esteem and stress, however, did predict prospective changes in self-concept clarity (see Table A.4). The simple main effects of stress within level of contingent self-esteem suggested that persons high in contingent self esteem experienced relatively greater changes in self-concept clarity when they experienced stress (β = .137, NS) than persons low in contingent self-esteem (β = -.129. NS). Importantly, level of contingent self-esteem had little effect on changes in self-concept clarity when stress was low (β = -.062, NS), relative to when it was high (β = .184, NS).

Contingent Self-Esteem and Mood: Prospective Results

To the extent that contingent self-esteem places an individual at risk for experiencing negative self-focused attention following a stress, that individual should experience relatively greater increases in negative mood. To test this hypothesis, mood measures were regressed onto the predictors and interaction effects in the model in two separate hierarchical regressions.

In the first regression, the relationship between the interaction of contingent self-esteem and stress on mean daily levels of negative mood was examined. Results, shown in

Table A.5, indicated that the interaction effect significantly predicted negative mood, even when controlling for depression levels at Time 1. An explication of these results indicated that persons high in contingent self-esteem showed significantly greater levels of daily negative mood (β = .186, $p < .05$) than persons low in contingent self-esteem (β = -118, NS). Indeed, the simple main effect of contingent self-esteem within high stress indicated that as persons increased in level of contingent self-esteem, their risk for experiencing negative mood also increased (β = .393, $p < .001$). These results provided strong support for the notion that contingent self-esteem, when it is moderated by stress, places individuals at significant risk for experiencing increased levels of negative mood.

Concurrently, the interaction of contingent self-esteem and stress predicted depression. To test whether this relationship held over time, depression scores at Time 2 were regressed on the predictors while controlling for depression at Time 1. The results, shown in Table A.6, indicate that contingent self-esteem did not prospectively predict change in depressive symptomatology. Interestingly, however, changes in self-concept clarity did predict increases in depressive mood. The impact of self-concept clarity on depression at Time 2 was, importantly, completely mediated by changes in self-concept clarity over time. The direction of these effects suggests that, as self-concept clarity decreased, depressive mood increased.

These results suggest that prospective decreases in self-concept clarity predicted increases in depression. At the same time, how self-concept clarity changes appeared to be the result of the interaction between contingent self-esteem and stress. It is interesting, given the present results, that mean levels of daily negative mood did not explain significant unique variability in change in depressive symptomatology, suggesting that these two constructs may be independent. Indeed, the zero-order correlation of mean levels of daily negative mood and depression was only moderately correlated ($r = .413$, $p < .01$). Furthermore, negative and depressive mood were predicted by different pathways. Negative mood was predicted by the interaction of contingent self-esteem and stress, but not self-concept clarity, while depression at Time 2 was predicted by changes in self-concept clarity. How then, might these two concepts be related? Interestingly, contingent self-esteem and stress did predict changes in self-concept clarity. Likewise, zero-order correlations for negative mood and self-concept clarity, although not significant at Time 1, were significant at Time 2, suggesting that negative mood may contribute to the change in self-concept clarity. To test this possibility, mean levels of daily negative mood were entered into the regression equation predicting changes in self-concept clarity, along with the original predictors (see Table A.4). The results indicate that negative mood added significant unique variance in predicting self-concept clarity. The direction of this relationship indicated that, as hypothesized, as negative mood increased, self-concept clarity decreased.

The results suggest two separate models. In the first, overarching model, changes in self-concept clarity predicted increases in depressive symptomatology (see Figure B.4a). Notably, this model was specific to changes in depression level. It did not predict changes in state ($F(7.121) = 1.48$, NS), or trait anxiety ($F(7.121) = 1.15$, NS), or body image disturbance ($F(7.119) = 1.56$, NS).

The second model explicated specific risk factors for negative changes in self-clarity, and suggested that both negative mood and the interaction of contingent self-esteem and stress acted in conjunction to predict prospective changes in self-concept clarity (see Figure B.4b).

Validity Analyses

To test the discriminant and convergent validity of the Contingent Self-Esteem scale, correlations between overall level of contingent self-esteem and theoretically related variables were examined. Given that the direction of the relationship between contingent self-esteem and other measures of self-esteem may change as a function of stress, partial correlations, after controlling for self-reported stressful events, were also computed. The results are presented in Table A.7. The overall internal reliability of the Contingencies of Self-Worth scale was $\alpha = .92$. As predicted, contingent self-esteem esteem was moderately correlated with overall self-esteem level at Time 1. Although also significantly related to mean daily levels of self-esteem, the strength of the relationship was small. Interestingly, even when controlling for the effects of stress, the relationship between contingent self-esteem and overall self-esteem level remained positive. Contrary to expectations, contingent self-esteem was not related to self-esteem lability. After controlling for stress, partial correlations between contingent self-esteem and self-esteem lability remained non-significant. ($r = .001$, NS). In contrast, social self-esteem was positively correlated with self-esteem lability. Consistent with the notion that contingent and social self-esteem may be measuring independent aspects of self-esteem, the relationship between these two constructs was not significant. Social self-esteem was also not correlated with specific subscales of the Contingent Self-Esteem measure assessing needs for "others approval" $r\,(252) = -.001$, NS and "social identity" $r\,(252) = -.049$, NS (e.g., "being criticized by others really takes a toll on my self-respect," and "my self-esteem is influenced by the contributions I make to my social group") providing further evidence that social dimensions assessed by each scale are unrelated.

Correlational analyses were also performed to test the relationship between self-concept clarity and other measures of self-evaluation (see Table A.7). As anticipated, the negative correlation between contingent self-esteem and self-concept clarity was significant, and small to moderate in size, reflecting the independent but related nature of these variables. These results suggested that, as an individual's dependence on extrinsic sources for self-worth increased, the relative certainty the individual had about attributes of the self decreased. Self-concept clarity had a small, positive relationship to self-esteem level when measured concurrently at Time 1. However, the correlation between mean level of daily self-esteem and self-concept clarity was not significant. Interestingly, the relationship between self-esteem lability and self-concept clarity, as it was measured at both time one and time two, was not significant, indicating that these two concepts may be independent. Lastly, the negative relationship between self-concept clarity and social self-esteem suggests that as evaluations about social competence increase, clarity about the self also increases. In sum, self-concept clarity appears to independent of, but related to, measures of self-esteem level and social self-esteem, although the seemingly transient nature of self-concept clarity indicates that it may be mediated by additional processes.

DISCUSSION

Although the overall pattern of results did not support the initial model, they did provide meaningful support for portions of the model. The subsequent revised models resulted in a two-step approach explaining, first, change in depressive mood over time (see Figure B.4a), and in the second model, factors involved in change in self-concept clarity (see Figure B.4b). In the first model, persons at greatest risk for prospective increases in depressive mood were those who experienced decreases in the clarity of their self-concepts. These results provide support for the notion that increased self-concept confusion may be an important mechanism through which depression arises. Theoretically, to the extent that an individual is less confident in their abilities and attributes, that individual may engage in fewer self-verifying pursuits (Swann, 1990), doubt the feedback of others, and remain confused regarding problem-solving efforts and future behavioral actions. Thus, a reduction in self-concept clarity may represent a pivotal point underlying the processes involved in the onset of depression.

Given the centrality of self-concept clarity in predicting prospective increases in depressive symptomatology, it was important to understand the factors involved in creating self-concept confusion. In the second model, these risk factors were further elucidated. Two sets of factors were implicated in the instability of self-concept clarity: the interaction of contingent self-esteem and stress, and daily negative mood. That is, persons who were high in contingent self-esteem at Time 1 and who experienced relatively more stress showed decreases, overall, in the clarity of their self-concepts. Interestingly, this interaction predicted mean daily negative mood, which added significant unique variability in explaining changes in self-concept clarity. It is important to note that these increases were not measured at a specific point in time, but represent overall levels of negative mood across a period of two weeks. Thus, persons with high contingent self-esteem, when they experienced a stressor, were at risk for experiencing both greater levels and longer exposure to negative mood. In turn, the combination of these risk factors increased the probability that these individuals would experience more confusion regarding their self-concept. The results support the hypothesis that persons high in contingent self-esteem are more likely to have unstable self-concepts when they experience stress and are exposed to subsequent negative mood. The combination of the tenuous nature of contingent self-esteem and negative mood appears to have a particularly polarizing and destabilizing effect on the certainty of these persons self-concept clarity. In turn, the resulting decrements in self-concept clarity place the individual at particular risk for experiencing an increase in depressive symptomatology.

Thus, the overall results suggest that self-concept clarity has an important role in predicting prospective increases in depressive symptomatology over time. In turn, this study provided evidence suggesting that whether or not an individual was susceptible to experiencing these changes was due, in part, to the extent that individual based his or her self-worth on contingent sources of self-wroth and experienced high stress. This interaction appeared to serve a destabilizing function, one that was further enhanced by the negative daily mood the individual experienced. This process is consistent with previous research examining the activating link between negative mood and subsequent negative cognitions. Thus, as persons high in contingent self-esteem experience confusion regarding their self-concept when they experience stress, this should be magnified when they also experience negative mood that produces accessibility to negative cognitions. In turn, to the extent that persons low in self-concept clarity are at a reduced capacity to engage in the manner of effective problem-solving and coping that is characterized by certainty regarding the self, it is likely that they are at particular risk for engaging in high risk negative behaviors that may lead them to become depressed.

Why Should Self-Concept Clarity Have an Important Role in the Development of Depression?

The results of this study suggest a potentially important model explicating how the processes underlying depression may unfold prospectively in daily fashion. Self-concept clarity has a pivotal role in this process. Conceivably, its relative importance may be the result of several factors. First, having a cloudier, less certain view of one's attributes may have a direct impact on depressive mood and symptomatology. Indeed, clinical reports of depression often include descriptions of individuals who state that they feel trapped, confused, lost. "When I tried to think clearly… I felt that my mind was immured…" (Solomon, 2001). Low concept clarity also appears to underlie many of the symptoms that occur in depression. In the broader literature, it has been linked to poor problem-solving, increased sensitivity to social cues, and a decrease in goal directed behavior (Brocker, 1984; Campbell et al. 1996). These may, in turn, contribute to further depressive symptoms. For instance, mustering motivation may be quite difficult when one is unclear about who one is or what one's goals are.

Although not measured in this study, the relationship between low self-concept clarity and depression may be mediated by level of rumination. In previous research, rumination has consistently been implicated in depression, both concurrently and prospectively (Lyubomirsky & Nolen-Hoeksema, 1993; Morrow & Nolen-Hoeksema, 1990; Nolen-Hoeksema, Parker, & Larsen, 1994). Factors underlying rumination have been less clear, and current explanations purport that rumination may be a trait-like feature that differs between individuals (Nolen-Hoeksema, 2002). However, support for this proposal is scarce and inconsistent. Recent research on self-concept clarity, though, has shown that it is related to rumination concurrently (Campbell, 1999; Ward, Lyubomirsky, Sousa, Nolen-Hoeksema, 2003), suggesting that the repetitive and circular nature of ruminative thought may be linked to the experience of a poorly defined sense of self. Thus, changes in self-concept clarity may spur ruminative thought, thereby leading to a negative mood cycle.

Is self-concept clarity malleable? Although self-concept clarity has, at times, been hypothesized to be a stable, trait-like construct (Campbell et al., 1996) the current study assumed that it was a malleable construct, reactive to stress and mood change. Consistent with a growing body of research, the results of this project supported this hypothesis. Indeed, self-concept clarity at Time 1 was negatively, and non-significantly, related to self-concept clarity at Time 2. The labile nature of self-concept clarity was largely explained by the interaction of contingent self-esteem and stress, and by daily negative mood. That is, those who experienced relatively low levels of stress showed a very small relationship to self-concept clarity change, whereas those who were high in contingent self-esteem and high in stress had greater relative changes in self-concept clarity. This replicates previous research that has shown that stressful events produce self-concept confusion concurrently, prospectively, and when measured on a daily basis (Chang, 2001; Lavallee & Campbell, 1995; Nezlek & Plesko, 2001).

Are Depression and Negative Mood Separate Constructs?

Debate regarding the dimensionality or categorical nature of depression has persisted throughout the past several decades. The underpinnings of this debate represent a number of gaps in the current understanding of depression. Primary amongst these are that depressive symptoms are heterogenous and that it is difficult to subclassify “types” of depression. Secondly, the link between negative mood and depression is as yet unclear.

Researchers favoring the dimensionality thesis point to the role of psychological correlates involved in negative mood or subsyndromal levels of depression. Clinicians who doubt the applicability of such research to their patient populations, argue in favor of categorical models of depression (Coyne, 1994). Recent research employing taxometric analyses, however, has provided evidence that depression may be characterized by two different factors, one categorical and one dimensional. The former of these may be more somatic in nature, the later comprised of cognitive/mood components (Beach & Amir, 2003), suggesting that research on negative mood may be a necessary, but not sufficient, investigation into the examination of depression.

The current study, however, provides evidence that average daily negative mood and retrospective report of depressive symptoms, although related, are separate constructs. Indeed, daily negative mood and depression were only moderately correlated, and the link between negative mood and depression at Time 2 became non-significant once depression at Time 1 was controlled for, suggesting that the majority of the variability in prospectively predicting depression at Time 2 was explained by depression at Time 1, but not daily negative mood. In addition, the measures in this study used to assess mood had very little item overlap, thereby discounting this as a possibility in explaining the non-significant prospective relationship between negative mood and depression. Lastly, two different processes predicted negative mood and depressive mood. The interaction of contingent self-esteem and stress did predict, prospectively, mean daily levels of negative mood and variability in negative mood. It did not, however, predict changes in depressive mood. In contrast, self-concept clarity did not predict negative mood, but did predict change in depressive mood. In sum then, the evidence suggests that, in this study, negative and depressive mood, as measured, were different constructs.

Despite these differences, and the lack of a direct relationship between these two constructs, negative mood had an indirect role in the development of depressive symptomatology. Consistent with a growing body of literature implicating negative mood in the accessibility and impact of negative cognitions (Ingram, Miranda, & Segal, 1998; Segal, Gemar, & Williams, 1999; Teasdale, 1997), decreases in self-concept clarity occurred in conjunction with negative mood. That is, negative mood increased confusion about the self. How this might happen may be explained within the structure of information processing theories of depression. These theories posit that negative mood increases accessibility to and awareness of negative thoughts, memories, and focuses attention on negative aspects of the environment (Teasdale & Barnard, 1993). These processes have a notably concentrated aspect, such that individuals subjected to their effect have been shown to lose a broader perspective (Teasdale et al, 2002). The polarizing effects of negative mood have the potential then to shift individual's beliefs about themselves dramatically, thereby creating self-concept confusion and a lack of faith in consistency. In so doing, the information processing aspects of negative mood may present the backdrop in which confusion about the self-concept arises. Thus, that negative mood may be independent of depressive symptomatology does not preclude it from being a risk factor for depression to the extent that it is involved in producing information processing related changes that predict change in depressive symptomatology.

Additional Processes Involved in Change in Self-Concept Clarity.

The results of the current study, however, provide evidence that contingent self-esteem and stress predicted both mean daily levels of negative mood, giving it an indirect relationship to self-concept clarity change, and directly predicted changes in self-concept clarity. Specifically, as persons high in contingent self-esteem experienced increasing levels of stress, they prospectively had reductions in self-concept clarity. These results are consistent with the notion that persons with high contingent self-esteem, by proxy of the fact that their sources of self-worth are extrinsically based, are at particular risk for experiencing disruptions in their overall self-concept when they encounter disconfirming, or stressful, evidence. That these persons also experienced an increase in negative daily mood suggests that high contingent self-esteem has a particular impact on self-regulatory disruptions. Consistent with this broader body of literature, the current study supports the idea that, as individuals susceptible to social sources of feedback, persons high on contingent self esteem will experience more negative mood as a function of experiencing a greater number of occurrences in which their goals, or contingencies, are not met.

Measuring Tautologies: Are Contingent Sources of Self-Worth Merely Negative Cognitions?

Research in the area of negative cognitions have long noted their rigid, perfectionistic, and often externally based nature. Consistent with the notion that contingencies are often socially dependent, two factors underlying negative cognitions have regularly been identified: sociotropy and autonomy (Bieling, Beck & Brown, 2000; Blatt, Shahar, & Zuroff, 2001; Robins, Bagby & Rector, 1997). The former of these reflects a general dependence on socially-based goals, the latter is indicative of an overreliance on achievement in producing feelings of self-worth. As noted previously, depressed individuals endorse such thoughts at increasingly greater rates than non-depressed persons (Destun, & Kuiper, 1996).

Are negative cognitions then much different from contingent self-esteem? Empirically, the small correlation between these two constructs ($r = .113$, $p < .05$) suggests that they are independent in nature. Theoretically, however, there are important distinctions between these two concepts. Negative cognitions, as measured by the DAS, reflect general beliefs about behaviors and thoughts. A closer examination of the items comprising the measure exemplifies this argument ("I should be happy all the time," "People who never have good ideas are stupid"). Thus, negative cognitions specifically reflect beliefs that are rigid and general in nature. They apply both to the individual endorsing them and to the greater populance at large. In contrast, the contingencies of self-worth scale, in measuring contingent self-esteem, assesses the extent to which an individual's evaluation of themselves changes as a specific function of their reliance on external sources. It does not address whether or not behaviors are "good" or "bad;" only the relative importance an individual places on a given goal and the extent to which achieving that goal is measured through social feedback (i.e., "I can't respect myself if others don't respect me").

Thus, contingent self-esteem and negative cognitions appear to differ in at least two important ways. First, contingent self-esteem does not assume a negative perspective. Indeed, as hypothesized, persons high in contingent self-esteem may have positive thoughts regarding themselves and the world to the extent that they are able to achieve their goals. Secondly, contingent self-esteem specifically measures the extent to which a given individual seeks self-worth from external sources. Negative cognitions measures global beliefs. Although a contingent orientation, like negative cognitions, may be somewhat rigid, it does not assume an emotional valence. These distinctions suggest that the two concepts are, in fact, independent constructs.

Null Findings: Methodological Issues in the Study of Self-Esteem Lability.

Despite the evidence that contingent self-esteem, when moderated by stress, significantly predicted changes in self-concept clarity, suggesting that this concept does predict lability in perceptions of the self, the relationship between the interaction effect of contingent self-esteem and stress with self-esteem lability was not significant. Although this may represent evidence that these constructs are unrelated, several points warrant attention regarding this point. First, self-esteem lability did not, as it has in previous studies, predict changes in depressive mood over time. Secondly, the range of the lability scores was less than that reported in other studies of self-esteem lability, suggesting that the sample in this study may have responded in a different fashion than other samples. Although the methodology of previous daily diary studies was closely reproduced in the current study, there were several significant differences. First, most daily diary studies have collected data in either a paper or Personal Digital Assistant (PDA) format. The former methodology requires personal contact with the researcher at least once during the course of the study. This may encourage greater conscientiousness when responding to measures, and may therefore produce relatively greater self-reported lability in self-esteem. Similarly, the PDA format includes a level of connection to the researcher in that, frequently, participants use the PDAs the researcher provides them with. The current study was conducted entirely over the internet. Although the researcher sustained frequent (between daily to twice weekly) contact with the participants throughout the course of the study, the participants never had personal face-to-face contact with the researcher. In addition, responding via the internet allowed participants the opportunity to respond to parts of the study and return to complete the study at a later point. Although this approach was discouraged, in the face of technical difficulties (e.g., server was temporary unavailable) it was at times necessary in order to complete the data. As a result, responders may have been less focused when responding. Lastly, although previous researchers employing paper forms in their daily diary studies have reported poor response rates over weekends and holidays and have therefore stopped asking participants to respond during these times (Kernis, 2000), the participants in this study had a relatively high weekend and holiday response rate. Lastly, this study recorded self-esteem on a daily basis. That is, participants were asked to respond to the daily surveys at least ten of fourteen days, with a modal response in this sample of eleven days. Previous studies have frequently asked participants to respond every second day, or to respond at specific times on specific days. Although the current methodology appeared to encourage high response rates, it may have been less sensitive to changes in self-esteem between days. In all, given the sensitivity of self-esteem lability measurement to environmental differences, it is possible that the methodological variations in this study produced less specific, and therefore, less labile, responses.

Limitations of the Present Study: Future Directions.

The current study, utilizing innovative technology, provided important support for specific processes involved in depression. The daily diary, longitudinal process utilized in this study allowed for an examination of an externally valid, unfolding process involved in the interaction between mood and cognitive/self factors places persons at risk for depression. However, several points should be noted regarding the limitations of the study.

Limitations of the Sample and Methodology. The purpose of the study was to examine a risk factor model of depression, rather than to assess changes occurring concurrent to a depressive episode as, conceivably, these may represent two distinct processes. Diagnostic interview tests (i.e., Structured Clinical Interview for DSM-III-R, SCID, Spitzer, Williaams, Gibbon, & Frist, 1990) would enhance the specificity of these issues to the extent that information regarding individual lifetime history of depression and current residual symptoms was gathered. In addition, at least three factors have been identified as consistently posting a major risk for the development of depression. These factors are: having a parent(s) who is depressed (Beardslee Versage, & Glastone, 1998; Goodman & Gotlib, 1998; Kaslow, Deering, & Racusin, 1994), being female (Nolen-Hoeksema, 1991) and having a prior history of susbsyndromal depression (Compas, Ey, & Grant, 1993; Horwath, Johnson, Klerman, & Weissman, 1992; Judd, et al., 1998). Identifying specific dynamic risk factors within these high-risk groups may further the efficacy of prevention efforts and improve the specificity of risk-factor markers. Although the current study was limited to women in a high-risk age range, and information about parental history of depression was gathered, the number of people who reported having a depressed parent (n = 54) did not warrant large enough power to meaningfully examine differences between groups within the proposed model. However, future studies addressing these issues have the potential to meaningfully inform the literature.

The current sample was comprised of a high risk group for depression. This is reflected in the fact that up to 23% (n = 102) of the original sample reported having suffered from at least one episode of depression, numbers paralleling epidemiological reports. However, the women in this sample were notably of a higher socioeconomic status, primarily White, and by virtue of being a college sample, relatively highly educated. Given the continuing paucity of research on depression in minority groups, both research conducted with community populations and oversampling of minorities is needed. As the Hispanic-American community continues to rapidly grow throughout the United States, research addressing the potential unique processes involved in their risk for depression is imperative.

Although the current sample was comprised of an age group at risk for developing depression, the fact that a relatively large percentage reported already having experienced and being treated for depression suggests that early prevention efforts should be directed at younger age groups. Given that the gender differences in rates of depression appears around the time of puberty (12-13 years of age; Nolen-Hoeksema, 1991), research aimed specifically at primary prevention risk factor models might focus on this age group. Despite this, however, the current sample, particularly to the extent that they experienced subsyndromal or residual symptoms of depression, has the ability to inform both prevention and relapse-prevention models of depression.

Participants were followed for a duration of approximately one month. During the two later weeks, participants responded to the daily questionnaires. Although this methodology permits a short-term longitudinal investigation into the processes involved in changes in cognitions and mood, it remains unclear how these processes might unfold over longer time frames. To this end then, longer term follow-up is needed.

Use of the Internet. As the internet becomes increasingly available and utilized, it has become a promising venue through which to conduct research. Its advantages are many. The internet makes research accessible to persons who might otherwise not participate. This holds true both within college samples, and with the community at large, and may have particular relevance for daily diary studies, which require consistent efforts on the part of the research participants. Simply, it is often quite easier to sign onto a web site from one's home computer than to fill out a diary form, which could be misplaced, return the form to a pre-designated location, and pick up another form, only to repeat the process. In addition, experimenter access to participant's email accounts has added benefits. Regular reminders can be sent en mass to participants, thereby promoting adherence with minimal effort. Collecting data via the internet also has the advantage of having the ability to design data collection programs that deposit data directly into statistical packages, thereby negating the tedious process of entering and "cleaning" data.

The internet, however, is not without its disadvantages. Perhaps most obviously, extensive computer knowledge and support is required. A computer program must be written, a server compatible with the program used must be found, and, inevitably, glitches will occur that must be rectified. Servers invariably "go down" – lingo for the fact that they become functionally unavailable, thereby interrupting the research process. Viruses infiltrate the internet and can compromise servers and the data collected. And, inevitably, hackers, perusing the network, may try to gain access to data collected, thereby compromising the confidentiality of participants' responses. Although a number of steps were taken in this study to ensure the confidentiality and integrity of the data no computer system is ever completely immune to these problems. Thus, continued concern about education and conscientiousness regarding these issues will remain paramount as researchers increasingly undertake internet and computer based research.

Future Directions: Experimental Research. The current methodology had several advantages. It addressed how processes might unfold on a daily basis over time, thereby providing specific information about externally valid processes involved in the development of depression. It was longitudinal in nature, thus allowing inferences about temporal processes to be inferred. The daily diary methodology mimicked self-monitoring methods used in a variety of therapy modalities. In so doing, it increased the ease with which the results of this study may be applied in the therapy setting. However, several gaps remain as a consequence of the methodology used. First, although temporal relationships may be established, the causal nature of these relationships is as yet unclear. To address this concern, experimental research examining the constructs in the current model is needed. For example, research designed to create self-concept confusion may induce factors thought to be involved in the production of such confusion (e.g., negative feedback to persons high and low in contingent self-esteem, negative mood induction) and then assess, both explicitly through self-report, and implicitly via reaction time methodology, the extent to which these factors alone produced such change. It would also be interesting to assess the extent to which these factors impact mood and changes in depressive symptomatology in never depressed, remitted, and currently depressed groups.

Additional areas warrant further investigation. The link between self-concept clarity and rumination is as yet clearly defined. Research examining the connection between these constructs and their relative risk for depression is warranted, both within the structure of prospective, daily diary studies and experimentally. It may, for instance, be interesting to test whether persons high in contingent self-esteem are at particular risk for negative self-focused attention, and if, when they experience this state, they choose to exit it or remain in it; with the former reaction being associated with rumination.

Further research investigating the link between self-concept clarity and specific cognitions is also needed. Although these constructs conceivably represent independent processes, it may be that activation of negative cognitions, to the extent that they simultaneously compete with positive cognitions, creates confusion and uncertainty about the self. This confusion, in turn, may produce a lack of motivated confidence in the "positive illusions" (Alloy & Clements, 1992; Alloy & Lipman, 1992; Taylor & Brown, 1988; Taylor, Collins, Skokan, & Aspinwall, 1989) involved in sustaining a positive emotional outlook. Consistent with this logical structure, to the extent that negative mood both narrows cognitive focus and produces self-concept confusion, research examining these effects relative to overall metacognitive thinking is opportunely needed. This is of particular clinical utility to the extent that changes in metacognitive thinking has been shown to be positively linked to improvements in depression following cognitive behavioral and mindfulness-based cognitive therapy (Teasdale, 1997; Teasdale, 1999; Teasdale et al. 2002).

It is likely that both contingent self-esteem, as a socially based construct, and low self-concept clarity are linked to changes in interpersonal behavior. Thus, it seems reasonable to suggest that persons low in self-concept clarity may be more likely to depend on and simultaneously doubt feedback from external sources. Although they may not report feeling as if they are receiving less support per se, they may perceive the quality and nature of this support as changing and being less reliable. In addition, sensitivity to feedback may increase as self-concept clarity decreases, placing the individual at greater risk for depression. Further research examining the extent to which interpersonal processes moderate and mediate the relationship of contingent self-esteem and self-concept clarity with depression will further strengthen the understanding of how these processes are involved in the development of depression.

Clinical Implications

The current study provides support for the notion that a high reliance on social contingencies places the individual at risk for experiencing negative mood and changes in self-concept clarity. These overall distinctions are consistent with previous research that has shown that sad mood increases accessibility to negative thoughts in at-risk persons, and that, at least initially, the competing nature of positive and negative cognitions can lead to confusion in self-concept clarity. Furthermore, to the extent that self-concept confusion is a negative state and promotes thought regarding the self, it may be linked to rumination; a process frequently implicated in rumination. These theoretical connections hold important clinical implications, and suggest several points of intervention.

Intrinsic Behavioral Activation. First, to the extent that high contingent self-esteem acts as a vulnerability factor for processes involved in the onset or perpetuation of depressive symptoms, individuals may be instructed in ways to engage in behaviors that are less contingently based. In so doing, they are taught how to pursue goals from a different perspective, and to think of themselves and their goals differently. In essence then, such persons undergo "behavioral restructuring." This may be achieved in several ways that are easily implemented within the framework of Cognitive-Behavioral Therapy. For instance, instead of picking 'pleasant activities' to do, individuals may rate behaviorally activating and pleasurable activities on additional dimensions: how challenging and engaging they find the activities. Such an approach is broadly consistent with Csikszentmihayli's (2000) notion of "flow," and suggests a method that emphasizes the identified and intrinsic nature of engaging in goals, rather than an extrinsically-based model that inadvertently contributes to the perpetuation of contingent self-esteem. In developing such sources of self-worth, it also provides the individual with a firmer foundation from which to engage in self-esteem repair, or to "self-affirm" (Steele, 1988; Tesser, 2001). The ability to engage in these processes has been linked repeatedly to reports of ongoing emotional well-being (Linville, 1987; Steele, 1988) and suggests an important preventative dimension. Thus, such a perspective does not deny the possibility that individuals may struggle to reduce the contingent nature of their original strivings, but does suggest a mechanism through which the individual may develop alternative sources of self-worth that are less contingent in nature, and therefore more stable and available when the individual faces discrepant feedback.

A note regarding the different styles with which contingent self-esteem may be addressed either in a depressive phase, or preventatively, is needed. Although identifying and engaging in activities that are optimally challenging and engaging may be relatively simple when not depressed; once depressed, it is expected that persons will have considerably more difficulty in doing either action. This may be a function of several processes. First, the individual's self-concept may be quite polarized and/or confused. This may not only reduce the overall metacognitive perspective the individual has, and therefore reduce their ability to generate options that may be challenging and engaging, but may also lead to doubt regarding the utility of such endeavors. The therapist, therefore, may need to come armed with several additional tools to assist the currently depressed individual. These tools potentially include the ability to (i.e., via functional analysis) identify gaps in the client's current routine, and to recognize the client's strengths. Therapists will need creativity in generating goal possibilities, and adopting a trial-and-error framework may be required, such that the client understands that amongst the options generated perhaps only one or two goals may prove to be optimal. The therapist, aware of the effects of low self-concept clarity and its impact on the individual's confidence, may also pay particular attention to sustaining and communicating hope and confidence in the treatment approach chosen. Thus, developing intrinsic goals, although possible both preventatively and during an active episode of depression, may be achieved with relative ease preventatively.

Evading the Effects of Low Self-Concept Clarity. Previous research has noted the deleterious effects of negative cognitions. The results of this study support newer research that suggest that it is not the content of the negative thoughts themselves that are at particular fault for causing depression, but the impact these thoughts have on the reactions, behaviors and self-concept of the individual. Specifically, to the extent that negative mood and contingent-self esteem create opportunities for self-concept confusion, then that confusion may place individuals at particular risk for experiencing increases in depressive symptomatology. This may be particularly apt to occur when negative thoughts and mood polarize, or "center" the individual, thereby offsetting their certainty in their beliefs about themselves and their ability to self-affirm. Efforts aimed at reducing the polarizing effect of these negative cognitions may be found within both Dialectical Behavior Therapy (Linehan,

1993) and Mindfulness-Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002). These therapies focus on teaching individuals skills that will help them escape the negative, if alluring, self-judging cycle associated with sad mood. Thus, individuals are taught to observe their thoughts nonjudgmentally. The practice specifically involves neither approaching nor avoiding thoughts, but allowing them rise and fall as they might naturally occur. In so doing, individuals are given the tools to exit a ruminative cycle that perpetuates negative mood and potentially gives rise to depression future instances of depression. These skills may have particular use as well in reducing the self-concept confusion resulting from negative mood states and decrements in self-esteem. As such, they have the ability to reduce processes involved in the onset of depression.

In sum then, preventative models of depression may wish to focus on expanding previous conceptions of Cognitive-Behavioral Therapy to include identifying and engaging in intrinsic goals and teaching mindfulness-based perspectives on coping with negative cognitions.

Clinical and Empirical Extensions. Lastly, although risk factor models are necessary in determining with whom, when, and why one might intervene clinically, they fail to answer questions related to improvement and resilience. In a comprehensive prevention oriented model, such questions have an equally important role. At a basic level, continued longitudinal research examining resilience factors is required. Such research should not necessarily be limited to cognitive factors, however, and should include the interaction of contextual, interpersonal, biological and cognitive variables.

Conclusion

The current results present a two-tiered risk factor model for depression. Decreases in self-concept clarity over time were strongly linked to subsequent increases in depressive symptomatology. In turn, persons high in contingent self-esteem who experienced stress and who experienced an increase in daily negative mood were at particular risk for becoming confused about their self-concept. To the extent that they did experience a decrease in self-concept clarity, these persons were at risk for experiencing decreases in depressive mood. Additional studies examining the role of rumination, interpersonal processes, and the role of self-concept clarity in reducing metacognitive awareness may help to further explain how and when self-concept clarity leads to depression.

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Footnotes

[1] As self-esteem lability did not predict negative mood (β = .119, NS) or depression at Time 2 (β = -.096, NS) when controlling for depression at Time 1, it was not included in further analyses in the model.

APPENDIX A

TABLES

Table A.1

Measures used at each phase

1st Phase	2nd Phase: Daily Diary	Last Day of 2nd Phase
• Rosenberg SE • Contingent SE • Self-Concept Clarity • TSBI • Perceived Stress Scale • ICSRLE • CES-D • STAI • BSQ	• Rosenberg SE • 2 question assessment of area of most positive/negative event • 2 question assessment of impact of positive/negative event • PANAS • Daily Strivings	• Self-Concept Clarity • ICSRLE • CES-D • STAI • BSQ

Table A.2

Correlations Between Measures of Self-Esteem and Mood.

	Contingent Self-Esteem	Self-Esteem Lability	Self Concept Clarity	Daily Negative Mood	Negative Mood Lability
Daily Mean Negative Mood	.140*	.193**	-.051	1.0	.596**
Negative Mood Lability	-.051	.177**	-.015	.596**	1.0
Daily Mean Positive Mood	.033	-.139**	.154*	.101	.046
Positive Mood Lability	.010	.054	.151*	.109	.232**
Depression Time 1	.102*	.301**	-.284**	.413**	.276**
Body Image Time 1	.327**	.149*	-.056	.153*	.137*
State Anxiety Time 1	-.035	.114	-.230**	.375**	.268**
Trait Anxiety Time 1	-.023	-.048	.066	.118	.086
Depression Time 2	.049	.152*	-.022	.274**	.089
Body Image Time 2	.110	.146	-.018	.174*	.026
State Anxiety Time 2	-.077	-.133	.025	-.221**	-.198**
Trait Anxiety Time 2	.006	-.097	.012	-.095	-.06

Note: * $p < .05$, ** $p < .01$

Table A.3

Predicting Depressive Symptoms at Time 1: Testing the Role of Self-Concept Clarity, Contingent Self-Esteem, and Stress.

Predictors	Step 1	Step 2	Step 3
Contingent Self-Esteem	-.064	.032	.042
Stress	.356***	.359**	.306**
Contingent Self-Esteem x Stress		.189***	.240***
Self-Concept Clarity			-.257***
Adjusted R^2	.11***	.14***	.20***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table A.4

Predicting Prospective Changes in Self-Concept Clarity.

Predictors	Step 1	Step 2	Step 3	Step 4
Depression Time 1	-.124	-.124	-.128	-.059
Self-Concept Clarity Time 1	-.651***	-.653***	-.678***	-.667***
Contingent Self-Esteem		-.052	.014	.061
Stress		.018	-.002	.004
Contingent Self-Esteem x Stress			.133*	.162*
Daily Mean Negative Mood				-.177**
Adjusted R^2	.41***	.42***	.43***	.45***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table A.5

Prospectively Predicting Daily Mean levels of Negative Mood.

Predictors	Step 1	Step 2	Step 3
Depression Time 1	.423***	.396***	.386***
Self-Concept Clarity Time 1	.05	.075	.046
Stress		.055	.034
Contingent Self-Esteem x Stress			.187**
Adjusted R^2	.11***	.14***	.20***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table A.6

Predicting Changes in Depressive Levels: The Role of Self-Concept Clarity, Contingent Self-Esteem, Stress, and Negative Daily Mood..

Predictors	Step 1	Step 2	Step 3	Step 4	Step 5
Depression Time 1	.641***	.659***	.659***	.644***	.632***
Self-Concept Clarity	.202**	.189**	.189**	.188**	-.049
Contingent Self-Esteem		.077	.077	.066	.094
Stress		-.096	-.096	-.095	-.094
Contingent Self-Esteem x Stress			.001	-.005	.059
Daily Mean Negative Mood				.038	-.002
Change in Self-Concept					-.343***
Adjusted R^2	.42***	.42***	.42***	.42***	.49***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table A.7

Correlations Between Different Measures of Self-Esteem.

	Contingent Self-Esteem	Self-Esteem Lability	Self Concept Clarity
Contingent Self-Esteem	1.0	-.033	-.161**
Self-Esteem Level	.340**	-.233**	.114*
Daily Mean Self-Esteem	.139*	-.396**	.129
Social Self-Esteem	-.050	-.135**	-.217**
Self Concept Clarity	-.161**	-.102	1.0
Self Concept Clarity Time 2		-.036	
Self-Esteem Lability	-.033	1.0	-.102

Note: * $p < .05$, ** $p < .01$

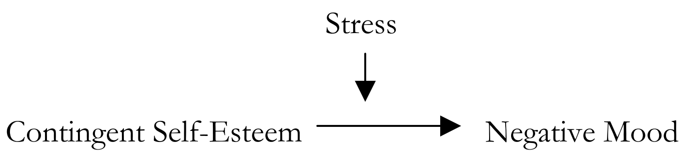
APPENDIX B

FIGURES

Figure B.1.


Stress
Contingent Self-Esteem
Self-Esteem Lability
Change in
Self-Concept Clarity

Figure B.2.


Stress
Contingent Self-Esteem
Negative Mood

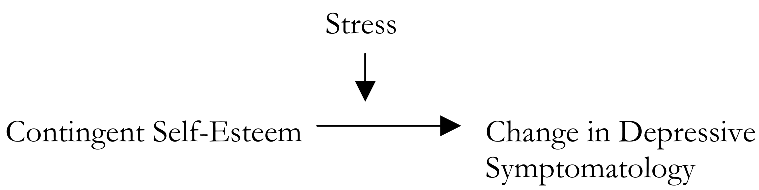

Stress
Contingent Self-Esteem
Change in Depressive Symptomatology

Figure B.3: Overall Model.

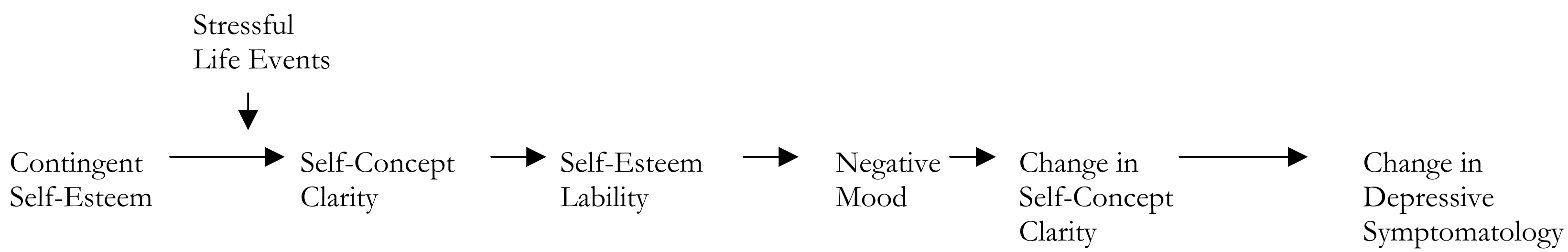


Figure B.4a: Revised Risk Factor Model for Depression.

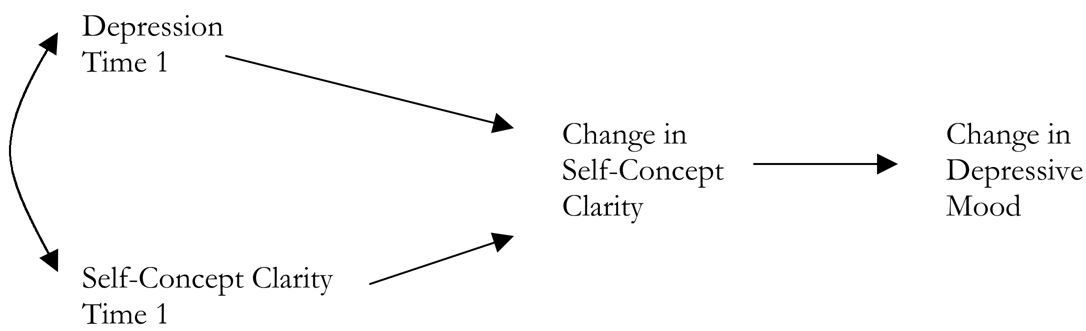
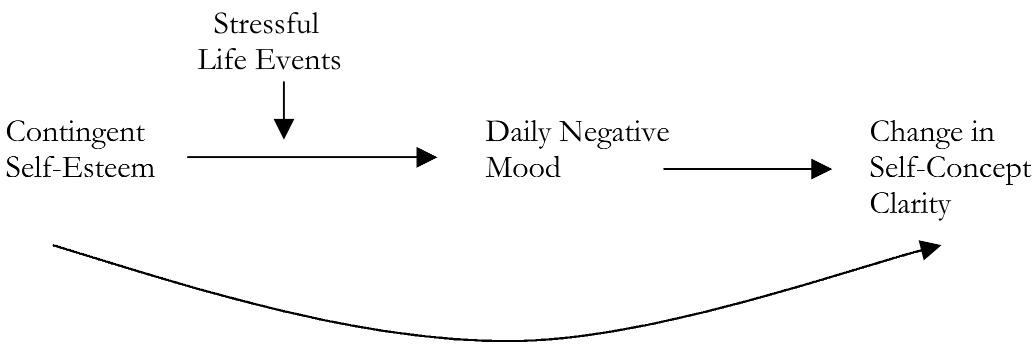


Figure B.4b: Predicting Change in Self-Concept Clarity.



APPENDIX C

MEASURES

Contingences of Self-Worth Scale

Please respond to the following statements using the scale below:

A = DISAGREE STRONGLY
B = DISAGREE
C = DISAGREE SOMEWHAT
D = NEUTRAL
E = AGREE SOMEWHAT
F = AGREE
G = AGREE STRONGLY

___1. I can't respect myself if others don't respect me.
___2. My self-esteem is related to how I feel about the way my body looks.
___3 It is important to myself-worth to feel loved by my friends and my family
___4. My self-esteem gets a boost when I get a good grade on an exam or paper.
___5. My religious beliefs form the basis of my self-esteem
___6. I couldn't respect myself if I didn't live up to a moral code.
___7. Having power over others makes me feel good about myself.
___8. My self-esteem is based on my membership in the social groups (e.g., race, gender, religion) I belong to.
___9. Being dependent on others makes me lose my self-respect.
___10. Being criticized by others really takes a toll on my self-respect.
___11. My self-respect is influenced by my weight.
___12. I base my self-regard on knowing that the people love me.
___13. Doing well in school gives me a sense of self-respect.
___14. I feel worthwhile when I have God's love.
___15. Doing something I know is wrong makes me completely lose my self-respect.
___16. Being able to make people do what I want them to boosts my self-esteem
___17. My worth as a person is related to my ethnicity, gender or religious affiliation.
___18. I would feel worthless if I was completely dependent on others for my needs
___19. What others think of me has no effect on what I thing of myself
___20. My self-esteem is influenced by how attractive I think my face or facial features are.
___21. My self-esteem is not dependent on love form friends and family.
___22. Whether or not I am a good student is unrelated to my overall opinion of myself
___23. God views me as special and unique
___24. Being in a very powerful position would enhance my self-regard.
___25. My self-esteem is influenced by the contributions I make to my social group.
___26. My self-esteem takes a drop when I can't control events in my life
___27. My self-esteem gets a boost when I receive a compliment or praise.
___28. My self-esteem does not depend on whether others find me attractive.
___29. I know I am worthwhile person because I am worthwhile in God's eyes.
___30. The social groups I belong to do not influence my self-worth.
___31. Being able to take care of myself is important to my self-respect
___32. My self-esteem depends on the opinions others hold of me.

___33. If I was in a very powerless position, I would have very low self-esteem.

Self-Concept Clarity Scale

Please answer the following questions using the scale below:

A	B	C	D	E
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

___ My beliefs about myself often conflict with one another.

___ On one day I might have one opinion of myself and on another day I might have a different opinion.

___ I spend a lot of time wondering about what kind of person I really am.

___ Sometimes I feel that I am not really the person that I appear to be.

___ When I think about the kind of person I have been in the past, I'm not sure what I was really like.

___ I seldom experience conflict between the different aspects of my personality.

___ Sometimes I think I know other people better than I know myself.

___ My beliefs about myself seem to change very frequently.

___ If I were asked to describe my personality, my description might end up being different from one day to another day.

___ Even if I wanted to, I don't think I would tell someone what I'm really like.

___ In general, I have a clear sense of who I am and what I am.

___ It is often hard for me to make up my mind about things because I don't really know what I want.

Please record the rating that describes how you view yourself for each adjective pair below:

A	B	C	D	E	F	G
Predictable						Un-predictable
A	B	C	D	E	F	G
Silly						Serious
A	B	C	D	E	F	G
Tactful						Candid
A	B	C	D	E	F	G
Un-conventional						Conventional
A	B	C	D	E	F	G
Assertive						Soft-spoken
A	B	C	D	E	F	G
Solemn						Light-hearted
A	B	C	D	E	F	G
Gentle						Boisterous
A	B	C	D	E	F	G
Deliberate						Spontaneous
A	B	C	D	E	F	G
Competitive						Cooperative

A	B	C	D	E	F	G
Quiet						Outspoken

A	B	C	D	E	F	G
Independent						Dependent

A	B	C	D	E	F	G
Cautious						Risky

A	B	C	D	E	F	G
Ambitious						Laid-back

A	B	C	D	E	F	G
Extravagent						Thrifty

A	B	C	D	E	F	G
Yielding						Dominant

For the following 15 questions, please review your previous answers, stating how **confident or sure** you felt about each rating. Use the following scale for you ranking.

A	B	C	D	E
Not at all Confident	Not very confident	Neutral	Somewhat Confident	Very Confident

___ Predictable/Unpredictable
___ Tactful/Candid
___ Assertive/Softspoken
___ Gentle/Boisterous
___ Competitive/Cooperative
___ Independent/Dependent
___ Ambitious/Laid-back
___ Yielding/Dominant

___ Silly/serious
___ Unconventional/Conventional
___ Solemn/Lighthearted
___ Deliberate/Spontaneous
___ Quiet/Outspoken
___ Cautious/Risky
___ Extravagant/Thrifty

INVENTORY OF COLLEGE STUDENTS' RECENT LIFE EXPERIENCES (ICSRLE)

Following is a list of experiences which many students have some time or other. please indicate for each experience how much it has been a part of your life *over the past month*. Put an "A" in the space provided next to an experience if it was *not at all part* of your life over the past month (e.g., "trouble with mother in law - *a*); "B" for an experience which was *only slightly* part of your life over that time; "C" for an experience which was *distinctly* part of your life; and a "D" for an experience which was *very much* part of your life over the past month.

Intensity of Experience over Past Month

A = *not at all* part of my life
B = *only slightly* part of my life
C = *distinctly* part of my life
D = *very much* part of my life

Conflicts with boyfriend's/girlfriend's/spouse's family	______
Being let down or disappointed by friends	______
Conflict with professor(s)	______
Social rejection	______
Too many things to do at once	______
Being taken for granted	______
Financial conflicts with family members	______
Having your trust betrayed by a friend	______
Separation from people you care about	______
Having your contributions overlooked	______
Struggling to meet your own academic standards	______
Being taken advantage of	______
Not enough leisure time	______
Struggling to meet he academic standards of others	______
A lot of responsibilities	______
Dissatisfaction with school	______
Decisions about intimate relationship(s)	______
Not enough time to meet your obligations	______
Dissatisfaction with your mathematical ability	______
Important decisions about your future career	______
Important decisions about your education	______
Loneliness	______
Lower grades than you hoped for	______
Conflict with teaching assistant(s)	______
Not enough time for sleep	______
Conflicts with your family	______
Heavy demands from extracurricular activities	______
Finding courses too demanding	______
Conflicts with friends	______

Hard effort to get ahead ______
Poor health of a friend ______
Disliking your studies ______
Getting "ripped off" or cheated in the purchase of services ______
Social conflicts over smoking ______
Difficulties with transportation ______
Disliking fellow student(s) ______
Conflicts with boyfriend/girlfriend/spouse ______
Dissatisfaction with your ability at written expression ______
Interruptions of your school work ______
Social isolation ______
Long waits to get service (e.g. at banks, stores, etc.) ______
Being ignored ______
Dissatisfaction with your physical appearance ______
Finding course(s) uninteresting ______
Gossip concerning someone you care about ______
Failing to get expected job ______
Dissatisfaction with your athletic skills ______

Demographics

How old are you?

a. 16-18 years
b. 18-20 years
c. 20-23 years
d. 23-30 years
e. > 30 years

What is your gender?

a. female
b. male

What is your approximate household income?

a. < $10,000 year
b. $10,000-15,000
c. $15,000-30,000
d. $30,000-50,000
e. > $50,000

What is your parents' approximate household income?

a. < $10,000 year
b. $10,000-15,000
c. $15,000-30,000
d. $30,000-50,000
e. > $50,000

Are you currently in a dating relationship?

a. yes
b. no

If you answered yes to the previous question, what is the approximate length of your relationship?

a. < 1 month
b. 1-3 months
c. 3-12 months
d. 12-18 months
e. > 18 months

What is your ethnicity?

a. African-American
b. Asian-American
c. Caucasian
d. Hispanic-American
e. Other

Have you ever been diagnosed by a professional (e.g., Ph.D., MSW, M.D., R.N.) with depression?

a. yes
b. no

If you answered “yes” to the previous question? How many episodes of depression have you suffered from?

a. 0
b. 1
c. 2
d. 3
e. 4 or more

How many times have you been treated for depression?

a. 0
b. 1
c. 2
d. 3
e. 4 or more

Has anyone in your immediate (e.g. mother, father, sister, brother) been diagnosed with depression or received treatment for depression?

a. yes
b. no

If you answered yes to the previous question, how many persons have been diagnosed with depression?

a. 1
b. 2
c. 3
d. 4
e. > 4

Has anyone in your extended family (e.g. grandparents, cousins, aunts, uncles) been diagnosed with depression?

a. yes
b. no

If you answered yes to the previous question, how many persons have been diagnosed with depression in your extended family?

a. 1
b. 2
c. 3
d. 4
e. >4

Has anyone in your immediate family been diagnosed with a psychiatric illness **other than** depression?

a. yes
b. no

If you answered yes to the previous question, how many persons have been diagnosed with a psychiatric illness other than depression?

a. 1
b. 2
c. 3
d. 4
e. > 4

Has anyone in your extended family been diagnosed with a psychiatric illness?

a. yes
b. no

If you answered yes to the previous question, how many persons have been diagnosed with a psychiatric illness?

a. 1
b. 2
c. 3
d. 4
e. > 4

DAILY RSE

For each question below: please click on the dot that best describes how you feel **at this exact moment.**

1. I feel that I am a person of worth, at least on an equal basis with others.

. . . .

Strongly Disagree — Strongly Agree

2. I feel that I have a number of good qualities.

. . . .

Strongly Disagree — Strongly Agree

3. All in all, I'm inclined to think I'm a failure.

. . . .

Strongly Disagree — Strongly Agree

4. I am able to do most things as well as most people.

. . . .

Strongly Disagree — Strongly Agree

5. I feel that I do not have much to be proud of.

. . . .

Strongly Disagree — Strongly Agree

6. I take a positive attitude toward myself.

. . . .

Strongly Disagree — Strongly Agree

7. On the whole, I am satisfied with myself.

. . . .

Strongly Disagree — Strongly Agree

8. I wish I could have more respect for myself.

. . . .

Strongly Disagree — Strongly Agree

9. I certainly feel useless at times.

. . . .

Strongly Disagree | Strongly Agree

10. At times I think I am no good at all.

. . . .

Strongly Disagree | Strongly Agree

Daily Stressful Events

Please consider the most negative event that happened to you today. Click on the box that describes what category this event was.

Problem with friend/boyfriend/girlfriend	Financial Problem	Academic Problem/Difficulty
Problem at work	Problem/Conflict with family	Other

To what extent did the **event** affect the way you felt about yourself?

1	2	3	4	5	6	7
I feel much worse			***Not at All***			I feel much better

Please consider the most positive event that happened to you today. Click on the box that best describes what category this event falls in.

Academic Success/Academic good news	Positive experience with friend/boyfriend/girlfriend	Praise/success/raise at work
Positive experience with family	Was successful in caring for myself (e.g. working out, getting enough sleep, etc.)	Other

To what extent did the **event** affect the way you felt about yourself?

1	2	3	4	5	6	7
I feel much worse			***Not at All***			I feel much better

Daily Social Support Questions

If you are in a dating relationship of one month or greater, please indicate on the scale below how satisfied you are with your relationship **today**. When considering satisfaction, please include a consideration of how much support you **currently** perceive is available to you **in your relationship.**

A	B	C	D	E	F	G
Extremely Dissatisfied			Satisfied			Extremely Satisfied

Please indicate on the scale below how satisfied you are with your general support network (i.e. friend, family) **today**. When considering satisfaction, please include a consideration of how much support you **currently** perceive is available to you in this network.

A	B	C	D	E	F	G
Extremely Dissatisfied			Satisfied			Extremely Satisfied