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Origins of Depressed Affect
in Dependent and Self-Critical Individuals

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A Thesis submitted to the Faculty of Graduate Studies and
Research in partial fulfillment of the requirements for the
degree of Doctor of Philosophy.

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General Abstract

Cognitive, motivational, and emotional contributors to depressive affect were investigated in dependent and self-critical college students. In the first study, Dependency and Self-Criticism were related to anaclitic and introjective dysfunctional cognitions which explained part of the variance in perceived stress for events involving loss and failure respectively. In the second study, the personality styles were related to different motive dispositions including achievement, affiliation and intimacy. Dependency and Self-Criticism were also related to motivational characteristics which were significant predictors of positive and negative affect. In the third study, Dependency was linked to the occurrence of romantic relationship stressors and Self-Criticism to academic stressors. Both personality styles were related to greater ambivalence over emotional expression, which significantly predicted depression. The variables from the cognitive, motivational, and emotional domains, and stress, were combined in an integrative vulnerability model for depression.

Résumé Général

Cette thèse porte sur les facteurs contribuant à l'affect dépressif, au niveau de la cognition, de la motivation et de l'émotion, chez des étudiant/e/s universitaires dépendant/e/s et autocritiques. Les résultats de la première étude indiquent que la dépendance et l'autocritique étaient liées aux pensées dysfonctionnelles. Ces attitudes expliquaient en partie le niveau du stress perçu pour des expériences négatives dans le domaine interpersonnel (perte), ou académique/ professionnel (échec). Dans la deuxième étude, le genre de personnalité était lié à la motivation, plus particulièrement à des mobiles tels que la poursuite d'accomplissements, l'affiliation et l'intimité. Signalons également qu'il y a eu un rapport entre le genre de personnalité et des caractéristiques de motivation, qui de leur part prédisaient de façon significative l'affect tant positif que négatif. La troisième étude a permis de déceler le lien entre la dépendance et la tension dans les relations amoureuses, ainsi que celui entre l'autocritique et le stress au niveau des études. Les deux genres de personnalité étaient aussi associés à une plus grande ambivalence concernant l'expression des émotions, ce qui prédisait la dépression de façon significative. Les variables faisant l'objet de ces études, soit les variables des domaines de la cognition, de

la motivation et de l'émotion, ainsi que le stress, furent intégrées dans un modèle décrivant la vulnérabilité à la dépression.

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Statement of Authorship

This thesis includes three articles co-authored by myself and Dr. David Zuroff. For the three articles, I was first author and generated the initial ideas and hypotheses. Some refinements were made according to Dr. Zuroff's opinions, but the general designs remained the same. His guidance was most influential in the statistical analyses, where he proposed several analytic strategies which I then carried out on my own. I wrote the articles first, while several revisions were made on the basis of Dr. Zuroff's feedback.

Statement of Original Contributions

Findings from this thesis that are contributions to original knowledge include:

- 1) the relationship between Dependency, Self-Criticism and the Anaclitic and Introjective Attitude Scales. This was the first application of Beck's cognitive model to these personality styles.
- 2) the self-monitoring data for a one-week period with dependent and self-critical subjects. Previous research has focused exclusively on single mood assessments, as opposed to repeated measurement.
- 3) the assessment of both positive and negative affect in dependent and self-critical subjects. The focus of prior studies was on negative affect.
- 4) the documentation of motivational correlates of Dependency and Self-Criticism, including the content and characteristics of motives. It is the first time that the motivational aspects of these personality styles were explored.
- 5) the demonstration of a relationship between emotional intensity and Dependency.
- 6) the demonstration of relationships between ambivalence over the expression of emotion and Dependency and Self-Criticism. The impact of this type of ambivalence for subjective well-being was demonstrated in previous research, but was never linked to specific personality styles.

7) the inclusion of male subjects for the five previous contributions. Prior work on Dependency and Self-Criticism focused almost exclusively on women.

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Dr. David Zuroff has been more than an excellent supervisor to me, he has also helped me grow in years that were particularly difficult. His consistent interest and benevolent attitude have made me feel supported and encouraged. His patience and devoted attention have allowed me to progress in my work with a sense of enthusiasm and hope. Foremost, his guidance and professionalism in research have provided me with an exemplary model of the scientific approach.

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Overview

This thesis is divided into three separate chapters which address different components of the vulnerability to depression found in dependent and self-critical individuals. Each chapter proposes explanatory mechanisms linking Dependency and Self-Criticism to mediating variables which in turn predict levels of depressed affect. These mediating factors include cognitive, motivational and emotional factors. Thus, the three domains of research presented in this thesis can be described as capturing elements of the three areas so often described as "the triad" of concern to psychologists (Pervin, 1989): cognition, conation and emotion. The data were collected from college samples, and the results of the thesis pertain to negative affect and depressive symptoms, rather than the clinical entity of depression.

The first article considers dysfunctional cognitions as important components of the vulnerability of dependent and self-critical individuals. An interactive model between cognition and stress is presented as an initial framework to explain the preponderance of depressive affect. The second article is concerned with motivational attributes of dependents and self-critics. Different motive dispositions are related to each personality style, and the characteristics of the motive system are shown to predict both negative and positive affect. Finally, the third

article examines the influence of conflict over emotional expression as an important contributor to levels of depression. Also included in the third article is an analysis of the types of events reported by dependent and self-critical individuals, highlighting the reciprocal interplay between personality and environment.

A general discussion then summarizes and integrates the major findings. A final framework incorporating cognitions, motivation, and emotional expression is presented in an attempt to link personality to depressed affect. Methodological issues in the research on predisposing variables for depression are also addressed.

Introduction

Blatt (1974, 1990) has described two broad personality styles with distinct developmental origins and predispositions to distinctive depressive experiences. The theoretical underpinnings for these personality distinctions will be presented first, and will be followed by the empirical research on the topic.

The dependent and self-critical character styles emerge from two lines of personality development involving: (1) the capacity to "establish increasingly mature and satisfying interpersonal relationships and (2) the development of a consolidated, realistic, essentially positive, increasingly differentiated and integrated self-definition and identity" (Blatt, 1990, p.299). Normal development involves a reciprocal interplay between these two basic trends, such that interpersonal experiences will promote a positive, realistic view of the self. In turn, a consolidated self-concept gives rise to more mature and satisfying relationships. These two broad tendencies begin in the first few years of life and continue to interact throughout the life cycle.

The natural propensity to move towards other individuals and the pull for individuation have long been recognized as two basic principles of personality organization. As discussed by Blatt (1990), earlier theorists have made this distinction. For example, Angyal

(1941, p.182) described the trend toward "homonomy" involving the tendency "to unite with, participate in, and fit into superindividual wholes." He described a second trend towards increased autonomy, exemplified in the "tendency to achieve, dominate, and master the environment" (Angyal, 1941, p.48). Similarly, Bakan (1966) described two sources of human motivation, with "communion" manifesting itself in the movement toward other individuals, and "agency" being exemplified in the urge to separate and master. McAdams (1985) also described the interplay of power and intimacy motivation in personality, and defined maturity as the integration of individuation and connectedness (Blatt, 1990). Finally, Erickson's (1950) epigenetic model of psychosocial development describes alternating steps between tasks involving interpersonal relations, and tasks involving self-identity. These positions are in agreement with Blatt's proposals of reciprocal influences between the trends for relatedness and self-definition (Blatt & Shichman, 1983; Blatt, 1990).

Blatt's model of psychopathology (1974, 1990) involves two broad categories of disorders (anaclitic and introjective) that reflect problems with interpersonal relatedness or self-definition. Although his model has been applied to a wide range of pathologies (Blatt & Shichman, 1983), the distinction between anaclitic and introjective depression are the only constructs that will be discussed

here. Anaclitic depression is associated with the dependent personality, while introjective depression is linked to self-criticism. The distinction has implications for early developmental history, and for several aspects of personality functioning such as cognitive organization, susceptibility to certain stresses, and the phenomenology of depressive experiences (Blatt & Shichman, 1983).

Anaclitic pathology is believed to have its origins in the early symbiotic relationship with the care-giving person. Neglect, lack of nurturance, or "misattunement" between the infant's needs and the care-giver's responses may eventually give rise to impaired representations of caring relationships (Blatt & Homann, 1990). The individual will later experience insecurities with respect to issues of trust, dependability, and availability of nurturance and love. The dependent personality style is subject to fears of abandonment, and will be vulnerable to perceived losses (Blatt & Zuroff, 1991). Anaclitic depression is characterized by feelings of loneliness, helplessness and depletion (Blatt, 1974), and is a pathological state to which dependent individuals will be vulnerable in response to perceived loss (e.g., Zuroff & Mongrain, 1987).

Self-criticism has been postulated to have its first origins at the more advanced developmental stage of separation-individuation, during the emergence of a distinct sense of self (Blatt & Shichman, 1983). Excessive parental

control, criticism and disapproval are believed to contribute to the internalization of harsh, hypercritical attitudes towards the self (Blatt & Homann, 1991). Self-critical individuals are characterized by constant self-scrutiny and strong needs for achievement and recognition. The focus is "not on sharing affection- of loving and being loved- but rather on defining the self... with a sense of autonomy... and with feelings of self-worth and integrity" (Blatt & Shichman, 1983, p.203). The vulnerability is towards an "introjective depression," involving feelings of inferiority, guilt and worthlessness (Blatt, 1974).

Before reviewing the empirical data in support of these distinctions, the convergence between Blatt's theory and other prominent theories of depression will first be described. It should be noted that several parallels have recently been made between Blatt's model and those of theorists from diverse orientations (Blatt & Homann, 1991; Blatt & Zuroff, 1991).

Early psychoanalytic writers first introduced the notion of characterological predispositions to affective disorders (Akiskal, Hirschfeld, & Yerevanian, 1983; Chodoff, 1974). Freud (1917/1961) and Abraham (1924/1960) described the oral fixation of the depressive character, originating from the frustration of affectional needs in the oral period. The oral dependent personality was described as lacking independence, and manifesting insatiable needs for

affection and nourishment (Chodoff, 1974). More contemporary psychoanalytic theorists (e.g., Bibring, 1965; Fenichel, 1968) further broadened the concept of orality to emphasize the needs for nurturance and support, and excessive dependency. Dependency is the most frequent personality concept, from the psychodynamic to the behavioral traditions, associated with depression (Chodoff, 1974; Wetzel, 1984).

Abraham (1924/1960) first described obsessional traits in relation to depression, including excessive punctuality, orderliness and exacting standards. Chodoff (1974) has referred to premorbid depressives as industrious, perfectionistic individuals who have unrealistic expectations. Thus, the anal-obsessive and oral-dependent character types associated with depression in psychoanalytic writings share some features with Blatt's introjective and anaclitic personalities (Blatt & Shichman, 1983).

Beck (1983), from a cognitive-behavioral perspective, has distinguished between two types of depressive personalities which are congruent with Blatt's typology and older psychoanalytic concepts. The "sociotropic" individual is characterized by great needs for intimacy and support, and depends on others for direction. Constant reassurance and stability in relationships are required for the maintenance of well-being. The patterning of symptoms within the socially dependent mode include dwelling on loss of

gratification, cries for help, loneliness, and other symptoms of "reactive depressions" (Beck, 1983).

The "autonomous" individual, according to Beck (1983), is invested in preserving independence and freedom of choice. A sense of well-being depends on the attainment of meaningful goals, on a subjective sense of freedom and autonomy and the fulfillment of standards that tend to be higher than the norm. An autonomous depression is permeated with themes of defeat and failure, withdrawal from others, and unremitting depressed mood. Beck (1983) has noted the similarity between this type of depression and "endogenous depression."

Arieti and Bemporad (1980), from a Sullivanian perspective, have proposed premorbid depressive personality types characterized by investments in a "dominant other" or "dominant goal." The "dominant other" displays great needs for another's inputs in order to function without dysphoria. These individuals are described as clinging, dependent and avoidant of expressions of anger (Arieti & Bemporad, 1980; Bemporad, 1985). The "dominant goal" type is obsessed with the pursuit of highly-valued achievements, at the expense of other forms of gratification. Meaning and purpose are derived solely from the pursuit of certain goals or ideals (Arieti & Bemporad, 1980).

Finally, Bowlby (1980, 1988) has described two types of individuals with insecure attachments who are prone to

depression. The "anxiously attached" individual is insecure and needy in interpersonal situations and is excessively dependent on others. The "compulsively self-reliant" personality, characterized by avoidant attachment in childhood, later displays a "pseudo" self-sufficiency and the avoidance of intimate relationships. Bowlby (1988) described this pattern as involving a massive defense against natural desires for affectionate, emotional bonds.

These theories show appreciable similarities in their descriptions of depressive personalities, and all except for Beck (1983) have postulated particular childhood antecedents to each personality style. Bowlby (1980) and object relations theorists have described the types of parenting that are related to insecure attachments. Longitudinal research (Main, Kaplan, & Cassidy, 1985) has demonstrated that attachment patterns are stable over time and entail distinctive behavioral, cognitive and emotional modes of functioning for the first six years of life (Bowlby, 1988). Recent work also suggests that attachment styles in adulthood, defined according to early childhood patterns, predict work orientation in adulthood (Hazan & Shaver, 1990). It has been claimed that attachment patterns in childhood have continuity and later influence adult love relationships as well (Hazan & Shaver, 1987).

The importance of early interaction patterns is based on the assumption that negative experiences are internalized

and later influence representations of the self and others (Beebe & Lachmann, 1988). Research is only beginning to delineate the particularities of early caring relationships that give rise to certain types of vulnerabilities. However, initial reports are beginning to point to the value of theories emphasizing early experiences as important influences on internal working models of the self and others (Bowlby, 1988).

Retrospective studies on the childhood antecedents of dependency and self-criticism (Blatt, 1991; Blatt, Quinlan, & Bers, 1990; McCranie & Bass, 1984) have shown that these personality styles are related to the report of excessive parental protection and lack of care. A prospective study (Koestner, Zuroff, & Powers, 1991), found that self-criticism in adulthood was predicted by parental restrictiveness and rejection. It has been suggested that overprotective parents impede attempts towards individuation, which could later lead to feelings of dependency and helplessness. Similarly, inconsistencies in expressions of affection could be interpreted as signs that one is unlovable and worthless (McCranie & Bass, 1984), and later entail overly-critical attitudes about the self.

Developmental experiences have implications for the types of life events to which depressive personalities will later be vulnerable. Bowlby (1980) focused exclusively on loss, for both the anxiously attached and the compulsively-

reliant individual. However, Blatt (Blatt & Shichman, 1983), Beck (1983) and Arieti and Bemporad (1980) have distinguished between stressors involving loss from those involving failure.

These distinctions have led to fruitful research endeavours, which have attempted to delineate the types of stressful life events that will trigger depression in vulnerable individuals (e.g., Hammen, Marks, Mayol, & deMayo, 1985; Robins & Block, 1988; Zuroff & Mongrain, 1987). Experimental designs have used simulations of rejection and failure to examine the specificity of affective reactions in dependents and self-critics (e.g., Blaney & Kutcher, 1990; Zuroff & Mongrain, 1987). Prospective studies (Hammen et al., 1985; Zuroff, Igreja, & Mongrain, 1990) have investigated the relationship between the personality dimensions and naturally-occurring stressors. Cross-sectional designs (Smith, O'Keefe, & Jenkins, 1988; Mongrain & Zuroff, 1989) also have investigated the interactions between personality and events. Studies have been conducted with clinically depressed populations as well, (e.g., Hammen, Ellicott, Gitlin, & Jamison, 1989; Segal, Vella, & Shaw, 1989) in an effort to predict relapse on the basis of personality vulnerability and the occurrence of matching event type.

There is overall agreement that Dependency and sociotropy are related to depression following interpersonal

stressors such as loss or separation (Nietzel & Harris, 1990). Achievement failure events have at times predicted depression for the self-critical and autonomous personality styles, (e.g., Zuroff & Mongrain, 1987). However, this group has also been found to be vulnerable to interpersonal stressors (Hammen et. al, 1985; Zuroff et. al, 1990; Zuroff & Mongrain, 1987). It has been proposed that self-criticism could be related to vulnerability to a wider range of events, as rejection as well as failure could be interpreted in terms of one's inadequacies and lead to introjective symptoms (Zuroff & Mongrain, 1987). Self-critics may be particularly sensitive to others' approval, which is consistent with their greater scores on interpersonal sensitivity measures (Baldwin & Shaw, 1990). In conclusion, dependency appears to be related to depression with the occurrence of interpersonal events, whereas the vulnerability of self-critics may be more pervasive, and not only related to achievement/failure events.

In a meta-analytic review of twelve studies looking at dependency and self-criticism, Nietzel and Harris (1990) have concluded that both personality styles have consistently been related to substantially higher scores on depression measures. While there is growing and converging support for the risks associated with these personality styles, relatively few studies specifically addressed the mechanisms underlying this vulnerability. This thesis

combines three articles that have examined different components of vulnerability and begin to delineate the ways in which dependent and self-critical individuals are at risk for greater depressed affect.

The first article pertains to the dysfunctional cognitions endorsed by these individuals. The purpose of the study was to apply elements of Beck's cognitive model of depression (Beck, Rush, Shaw, & Emery, 1979) to the constructs of dependency and self-criticism. The study investigated the different types of cognitions associated with each personality dimension, and related these cognitions to the appraisal of particular stressors. Thus, this article focused on the different dysfunctional attitudes endorsed by dependent and self-critical college women, and described how personality and beliefs can predict the appraisal of interpersonal and achievement-related events as more stressful (Mongrain & Zuroff, 1989). Kuiper & Olinger (1986) have investigated a similar paradigm with concordant results. This research suggests that certain beliefs of dependent and self-critical individuals can lead them to be more depressed when faced with negative events.

The second article focused on motivational characteristics related to Dependency and Self-Criticism. Disturbances in motivation have been related to depression from a number of perspectives. For example, Bibring (1965) viewed depression as resulting from an awareness of one's

inability to achieve certain ideals such as being loved, being superior, worthy and good. Beck (1974) also discussed how dissatisfaction with one's role or goals, created by unrealistic standards, may give rise to a sense of loss and depression. As discussed in several theories under various terminology, one's perception of progress or frustration with respect to personal aspirations can be instrumental in producing depressive symptoms. The reinforcement value of desired outcomes and one's expectancies of success are similar concepts from behavioral theories which have been tested empirically (Hoberman & Lewinsohn, 1985; Layne, 1980). Low expectancies for rewards and high expectations for punishment are motivational deficits most often associated with depression (Phares, 1972).

The interest in motivational variables also stemmed from the hypothesis that vulnerability to depression entails an over-investment in particular goals or roles (Linville, 1987; Oatley & Bolton, 1985; Power, 1987). For example, Linville (1987) found that self-complexity in terms of traits and roles was inversely related to the extremity of affective experiences during periods of stress. That is, individuals with a greater number of self-aspects and sources of self-definition were less likely to experience depression following negative life events. This suggests that individuals with fewer roles or goals from which to obtain gratification are more liable to experience a

lowering in self-esteem with the occurrence of impinging events. In a sense, the vulnerable individual is overly-invested in a few roles which are responsible for the maintenance of self-esteem (Oatley & Bolton, 1985; Power, 1987).

The motivation study investigated personal strivings of dependent and self-critical individuals in order to test the over-investment and motivational deficits hypotheses described above. Personal strivings refer to what an individual "typically tries to do," and represent recurring concerns in different situations (Emmons, 1986). They are at a level of analysis that conveys both idiographic and nomothetic information about an individual (Emmons, 1989). For example, personal strivings can be categorized into major motive dispositions such as achievement and affiliation (Emmons & McAdams, 1989). These appeared to be promising categories along which dependency and self-criticism could be compared. It was predicted that dependent individuals would be overly invested in affiliative and intimacy motives, in order to maintain vital sources of gratification and self-esteem. Self-critics were hypothesized to be motivated by achievement-related strivings, at the expense of affiliative and intimacy-oriented activities.

Personal strivings also can be assessed for specific properties such as incentive value and probability of

success. Several striving characteristics already have been related to the components of subjective well-being (Emmons, 1986). Similarly, the striving dimensions endorsed by dependents and self-critics were expected to explain their lower levels of affective well-being. In summary, the content and descriptive properties of motives were investigated in the hope of identifying antecedents to the experience of negative affect in dependent and self-critical individuals.

The third article examined emotional variables which were also expected to have pertinence for the understanding of depression. The data in this last article were collected at the same time as the data from the second study. The two variables investigated were emotional intensity (Larsen & Diener, 1987) and ambivalence over emotional expression (King & Emmons, 1990). Affective intensity was chosen because it has implications for strong, habitual reactions to events (Larsen & Diener, 1987). It was expected to contribute to the affective over-reactivity observed in vulnerable individuals. The role of ambivalence in depressive symptomatology has been discussed for several decades (Wetzel, 1984). For example, Freud (1917/1961) described the love-hate ambivalence felt towards the love object, and interpreted depression as the result of anger directed at the self because of the unacceptability of these feelings towards the love object. Rado (1951) later

described the ambivalence of the depressed individual as being caused by the rage felt towards a significant other, and the fear of expressing that rage. Similarly, Blatt (1974; Blatt & Homann, 1991) has proposed that dependent and self-critical people experience considerable levels of resentment towards their care-givers, but avoid the expression of anger. This ambivalence could originate from the fear of endangering the relationship and losing the love and approval of the significant other. The expression of more positive emotions may also be problematic for vulnerable individuals. For example, showing love and affection may entail fears of appearing weak or vulnerable for self-critics. A new measure of "ambivalence over the expression of emotion" (King & Emmons, 1990) has recently been shown to have important ramifications for psychological and physical well-being. It was expected to relate to dependency and self-criticism and provide yet another perspective on the vulnerability to depression.

In summary, this thesis addressed three domains which have previously been related to depression and which appeared to be theoretically relevant to the constructs of dependency and self-criticism. A final model that integrates the empirical findings will be discussed in the last section of the thesis. The cognitive, motivational and emotional aspects were conceptualized as interactive components, operating at different levels in a model for depression.

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COGNITIVE VULNERABILITY TO DEPRESSED AFFECT IN DEPENDENT AND SELF-CRITICAL COLLEGE WOMEN

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The cognitive model of depression postulates that maladaptive attitudes are a vulnerability factor for depressive episodes. Personality approaches have also demonstrated that dependent and self-critical women are at greater risk for depressive affective states, particularly when faced with certain classes of events (Zuroff & Mongrain, 1987). It was hypothesized that dysfunctional attitudes may be an important component of dependent and self-critical individuals' vulnerabilities. Moreover, specific themes were expected to be related to each personality dimension. Items from the Dysfunctional Attitude Scale (DAS) that were judged to represent pertinent dysfunctional cognitions for each personality dimension were included in two subscales, the Anacritic Dysfunctional Attitudes Scale and Introjective Dysfunctional Attitudes Scale (ADAS and IDAS). A measure of appraisal of hypothetical life events was administered to assess the level of perceived stress associated with interpersonal and achievement-related events. Dependent ($N = 13$), self-critical ($N = 15$), mixed ($N = 18$), and control ($N = 21$) female college students were selected using the Depressive Experiences Questionnaire. Both personality variables were significantly related to higher total scores on the DAS. Dependency and Self-Criticism were independently related to the ADAS and IDAS, respectively. Dependency, ADAS, and the ADAS \times IDAS interaction were related to the perception of interpersonal events as stressful. Self-Criticism and IDAS tended to be related to negative appraisal of achievement-related events.

Blatt (1974) has distinguished two personality configurations prone to different types of depressive states. The dependent personality style is associated with strong needs for support and nurturance, and vulnerability to an "anacritic depression." This type of depressive state "is characterized

by feelings of helplessness, weakness and depletion" (Blatt, 1974, p. 107). It often entails "wishes to be soothed and cared for, helped and protected" (Blatt, 1974, p. 116). A second type of vulnerability is found in self-critical individuals, who are characterized by constant self-scrutiny and evaluation, and display high needs for achievement and recognition. This personality style is vulnerable to an "introjective depression" involving feelings of inferiority, guilt, and worthlessness.* The Dependency and Self-Criticism scales of the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976) can be used to assess these personality traits.

Two recent studies (Hammen, Marks, Mayol, & deMayo, 1985; Zuroff & Mongrain, 1987) provide evidence for the vulnerability of dependent and self-critical individuals, most notably with the occurrence of particular classes of events. Hammen and colleagues (1985), using a prospective design, found significant associations between depression and schema-relevant life events in dependent and self-critical college students. Dependent subjects exhibited stronger depressive responses when faced with interpersonal loss, whereas on some measures, self-critical subjects exhibited stronger depressive responses to achievement-related events. Similarly, in Zuroff and Mongrain's (1987) experimental design, dependent subjects' depressive responses were specific to a laboratory analogue of rejection, whereas self-critics' responses tended to be greater for the failure condition (Zuroff & Mongrain, 1987). These results support the usefulness of an etiological framework involving the interaction of cognitive-affective structures and negative life events.

Although Blatt and his colleagues have described dependency and self-criticism as vulnerability factors for both the clinical syndrome of depression and subclinical depressive affective states, the bulk of the research has used college populations and dependent variables such as the Beck Depression Inventory and mood adjective checklists. The relations between dependency and self-criticism and clinical depression are still unclear (Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Klein, Harding, Taylor, & Dickstein, 1988). Thus, the present research conceptualized dependency and self-criticism as vulnerability factors for depressive affective states, and no claims are advanced that the results would necessarily replicate with psychiatric samples.

Beck's (1974, 1983) theory of depression appears well suited to study the cognitive component of dependent and self-critical individuals' vulnerabilities to depressive states. It could be hypothesized that these personality styles are associated with depressogenic assumptions or beliefs, and that these contribute to vulnerability to depression. There is now some evidence for the role of dysfunctional attitudes in the mediation of depressive affective states. In a college sample, those scoring high on the Dysfunctional Attitude Scale (DAS; Weissman & Beck, 1978) were shown to be significantly more depressed following negative life events than those with more adap-

*Although Blatt (1974) has used "anaclitic" and "introjective" to denote both the two types of states and the two types of predisposing personalities, we refer to the personality variables as dependency and self-criticism in order to distinguish personalities from types of depressive states.

tive attitudes (Wise & Barnes, 1986). Olinger, Kuiper, and Shaw (1987) have also shown that attitudinally vulnerable individuals became depressed with the occurrence of negative life events pertaining to the domain of their negativistic attitudes. These two studies offer preliminary evidence for a cognitive predisposition to depressive affective states, highlighting the role of dysfunctional attitudes and impinging stressful life events.

An unresolved issue is whether certain individuals are more likely to hold these dysfunctional attitudes. One possible component of dependent and self-critical individuals' schemata that has not yet received adequate attention is the presence of dysfunctional attitudes that give rise to negative cognitive appraisals of events. Moreover, distinct themes should be associated with each personality variable. For example, the following attitudes from the DAS could be particularly relevant to dependent depressive schemata: "Unless I have someone to lean on, I am bound to be sad" and "My happiness depends more on other people than it does on me." Such attitudes would be likely to result in dependency and anxiety regarding possible rejection by loved ones. Similarly, different underlying attitudes may be associated with self-criticism. Self-critical depressive schemata may involve attitudes such as "If I fail partly at my work, then I am a failure as a person" and "If I do not do as well as other people, it means I am an inferior human being." Thus, for self-critics, failure-related events would acquire more salience because of their relevance for their self-concept and sense of well-being. In summary, it is proposed that inappropriate rules and beliefs can be identified on a theoretical basis for dependent and self-critical individuals. These dysfunctional attitudes could be viewed as enduring cognitive structures that help to explain the individuals' vulnerabilities to certain classes of events.

The first goal of the study was to identify, *a priori*, specific attitudes pertinent to each personality dimension. Two subscales were constructed from the DAS and validated by judges familiar with Blatt's theory. The Anacletic Dysfunctional Attitude Scale (ADAS) and the Introjective Dysfunctional Attitude Scale (IDAS) were obtained. It was predicted that these scales would be significantly related to their corresponding personality dimensions.

This study also investigated the effects of Dependency, Self-Criticism, and dysfunctional attitudes on cognitive appraisals of negative events. It was hypothesized that the level of stress associated with interpersonal events would be significantly predicted by Dependency, but not by Self-Criticism. Similarly, Self-Criticism was expected to be a significant predictor of perceived stress for achievement-related events, but not for interpersonal events. The analogous relations were hypothesized between ADAS, IDAS, and attitudinally related events. These relations were expected to remain significant even when current levels of depression were statistically controlled.

METHOD

Subjects. The subjects were drawn from a study of exclusive, heterosexual dating relationships. Detailed descriptions of the sample's characteristics are avail-

able in Zuroff and de Lorimier (in press). Briefly, 275 undergraduate women from McGill University returned DEQs that they had completed at home. Dependent subjects ($N = 13$) scored in the upper 35% on Dependency and the lower 35% on Self-Criticism; self-critical subjects ($N = 15$) scored in the upper 35% on Self-Criticism and the lower 35% on Dependency; mixed subjects ($N = 18$) scored high on both scales; and control subjects ($N = 21$) scored in the lower 35% on both scales.* The subjects all had current or recent relationships in order to fulfill the requirements of the larger study.

The scores on the Beck Depression Inventory (BDI) ranged from zero to 26, with a mean of 7.9 and an SD of 6.1. Thirty-four percent of the sample scored at or above 10, the conventional level for defining "mild" depression. Some elevation in BDI scores was expected, because the sample was selected to include many vulnerable individuals. The predominance of nondepressed subjects was not surprising because vulnerable subjects are not necessarily depressed at any given point in time.

Measures. (1) Depressive Experiences Questionnaire. The DEQ includes 66 Likert-type items that tap a broad range of feelings about the self and others, but that do not assess the primary clinical symptoms of depression (Blatt et al., 1976). Three orthogonal factors were found in factor analyses of male and female college student samples; the factors were named Dependency, Self-Criticism, and Efficacy. The first two factors measure vulnerability to anaclitic and introjective depression (Zuroff & Mongrain, 1987). The test-retest reliabilities of the scale are high (Zuroff, Moskowitz, Wielgus, Powers, & Franko, 1983) and the evidence for construct validity is generally encouraging. For example, Dependency and Self-Criticism have been shown to be related in theoretically expected ways to measures of self-concept and self-esteem (Blatt et al., 1976; Zuroff et al., 1983); descriptions of parents (Blatt, Wein, Chevron, & Quinlan, 1979; McCranie & Bass, 1984); features of clinical case histories (Blatt et al., 1982); and reactions to laboratory analogues of rejection and failure (Zuroff & Mongrain, 1987).

(2) Anaclitic and Introjective Life Event Scales. A life event scale was adapted from the Life Event Survey (Hammen et al., 1985). The survey was modified by adding a 7-point rating scale in order to measure subjects' appraisal of each hypothetical event (1 = not at all upsetting; 7 = extremely upsetting). The instructions were "Try to imagine how you would feel if these events happened to you in real life. Rate each event according to the degree to which you would find it upsetting, depressing, or emotionally disturbing." Hammen and her colleagues (1985) broadly categorized the scale into "interpersonal" and "achievement"-related events. For this study, three judges were asked to indicate which events would "have a significant impact" for dependent and for self-critical individuals. The events that achieved perfect interrater agreement (10 items for each scale) comprised the final Anaclitic Life Event (ALE) and Introjective Life Event (ILE) scales.

(3) Dysfunctional Attitude Scale (Form A). The DAS is a 40-item inventory, consisting of typical depressogenic attitudes and designed to measure cognitive vulnerability to depression (Oliver & Baumgart, 1985; Weissman & Beck, 1978). It is

*Research on dependency and self-criticism has suffered from confusion as to whether to adopt a typological or dimensional framework. We regard the constructs as continuous dimensions. However, it is sometimes linguistically convenient to speak of "dependent individuals" or "self-critical individuals." It is also sometimes convenient to define groups of subjects (e.g., by employing median splits on Dependency and Self-Criticism) and to use analysis of variance techniques to analyze the data. In the present study, extreme groups of subjects were selected in order to increase statistical power. Nevertheless, the data were analyzed using regression techniques because we regard the underlying variables as continuous. Our purpose, in other words, was to discover correlates of the two personality dimensions, not to identify the attributes of certain types of individuals.

reported to have high internal and test-retest reliability (Dobson & Brieter, 1983; Weissman & Beck, 1978). The DAS is sensitive to severity of depression, with depressed individuals scoring higher than nondepressed controls (Dobson & Shaw, 1986; Weissman & Beck, 1978). It correlates with the Beck Depression Inventory (Weissman & Beck, 1978); this relation is moderate, however, indicating that depressogenic attitudes are operationally distinct from depressive symptoms (Oliver & Baumgart, 1985).

(4) *Anaclitic and Introjective Dysfunctional Attitude Scales.* These subscales were constructed by asking five judges familiar with Blatt's constructs to select "the items that would unambiguously belong to the anaclitic or introjective personality style." The scales are comprised of items achieving 4 out of 5 on interrater agreement and are listed in Table 1.

(5) *Beck Depression Inventory.* The BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a widely used 21-item self-report inventory measuring different aspects of depressive symptomatology. It has acceptable psychometric properties and is reported to be a valid measure of depressed mood for university populations (Bumberry, Oliver, & McClure, 1978).

Procedure. After completing the Zuroff and de Lorimier (in press) study, subjects were invited to participate in a separate experiment investigating "life stresses and emotional responses." All agreed to participate, and an extra subject who met the DEQ criteria, but not the relationship criterion for the larger study, was recruited. Subjects read and signed a consent form, and took home envelopes containing a battery of tests including the Life Event Scale, DAS, and BDI. They returned the completed questionnaires in person, were debriefed, and were paid \$3.00 for their participation.

RESULTS

Dependency, Self-Criticism, and the DAS. The correlation between Dependency and the DAS was .34, $p < .01$; Self-Criticism and the DAS correlated .62, $p < .001$. Both the DAS and Self-Criticism were significantly correlated with the BDI ($r = .47$, $p < .001$; and $r = .57$, $p < .001$, respectively). The Dependency subscale did not correlate significantly with the BDI (r

Table 1. Items from the Anaclitic and Introjective Dysfunctional Attitudes Scales

Anaclitic DAS (ADAS)

1. I am nothing if a person I love doesn't love me.
2. My value as a person depends greatly on what others think of me.
3. If you don't have other people to lean on, you are bound to be sad.
4. If others dislike you, you cannot be happy.
5. It is best to give up your own interests in order to please other people.
6. My happiness depends more on other people than it does on me.
7. Being isolated from others is bound to lead to unhappiness.

Introjective DAS (IDAS)

1. If I do not do well all the time, people will not respect me.
2. If I do not do as well as other people, it means I am an inferior human being.
3. If I fail partly at work, then I am a failure as a person.
4. If you cannot do something well, there is little point in doing it at all.
5. If I fail partly, it is as bad as being a complete failure.
6. If I don't set the highest standards for myself, I am likely to end up a second-rate person.
7. I should be upset if I make a mistake.

Note. These items were selected from the 40 items of the DAS, Form A, of Weissman and Beck (1978).

= .19, $p > .10$). In order to assess the relation between DEQ factors and dysfunctional attitudes independent of depression, semipartial correlation coefficients were computed with the BDI scores partialled from the DEQ variables. Both Dependency and Self-Criticism were significantly related to the DAS when the effect of mood was statistically controlled: $r = .22$, $p < .05$ for Dependency; $r = .41$, $p < .01$ for Self-Criticism. Thus, the personality factors were associated with greater endorsements of dysfunctional attitudes, independent of the effects of mood.

Dependency, Self-Criticism, and Anacritic and Introjective Attitudes. (1) *Anacritic Attitudes.* Hierarchical multiple regression analyses (Cohen & Cohen, 1983) were employed to determine the relation between the ADAS, IDAS, and DEQ factors independent of depression level. Scores on the ADAS and IDAS were the dependent variables. The BDI was entered first in the equations and served as a control variable. The predictor variables—Dependency, Self-Criticism, and their product term—were entered next. Increments in predicted variance for Dependency and Self-Criticism were calculated after the other variable was entered, so the reported effects are independent of one another. As shown in Table 2, significant percentages of the variance in ADAS were predicted by Dependency, $F(1, 63) = 28.4$, $p < .01$; Self-Criticism, $F(1, 63) = 5.3$, $p < .05$; and their interaction, $F(1, 63) = 4.14$, $p < .05$. Dependency, however, accounted for over five times as much variance in ADAS scores as did Self-Criticism.

In order to facilitate interpretation of the interaction, predicted levels of ADAS were calculated by substituting the values corresponding to 1 standard deviation below and above the mean for each DEQ factor in the regression equation. As illustrated in Figure 1, high levels of Dependency produced greater endorsement of anacritic dysfunctional attitudes for both high and low levels of Self-Criticism. However, the effect was significantly stronger for high levels of Self-Criticism. That is, Dependency was even more strongly predictive of ADAS when Self-Criticism was also elevated.

(2) *Introjective Attitudes.* The regression analysis for IDAS revealed a significant effect for Self-Criticism, $F(1, 63) = 16.4$, $p < .01$, but none for Dependency. These results confirmed the hypothesis that Self-Criticism is related to the endorsement of introjective attitudes. It is important to note

Table 2. Regression Analyses for Dysfunctional Attitudes, Using Dependency and Self-Criticism as Predictors and Controlling for Scores on the Beck Depression Inventory

Dependent variable	Increments in % variance predicted			Total % variance predicted
	Dep	S-C	Dep \times S-C	
ADAS	22.6**	4.2*	3.3*	30.1
IDAS	0.6	16.5**	0.7	17.8

Note. Dep = Dependency; S-C = Self-Criticism; ADAS = Anacritic Dysfunctional Attitudes; IDAS = Introjective Dysfunctional Attitudes. The BDI was always entered first, and the percentage increments reflect the contribution of a predictor when it was entered after the other predictor. The error term from the regression equation containing all predictor terms was used for all significance tests.

* $p < .05$.

** $p < .01$.

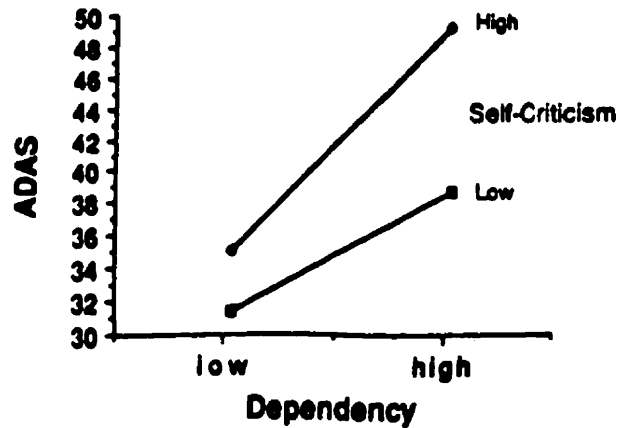


Figure 1. Anacletic dysfunctional attitudes (ADAS) as a function of Dependency and Self-Criticism.

that the reported effects in both the ADAS and IDAS analyses were mood-independent.

Dependency, Self-Criticism, and the Appraisal of Life Events. Two other regression analyses were performed to assess the relation between the DEQ factors and appraisals of anacletic and introjective life events (ALE and ILE). Again, Dependency and Self-Criticism were used as predictor variables, and the BDI served as a control for state-dependent effects. As shown in Table 3, Dependency accounted for a significant percentage of the variance in ALE, $F(1, 63) = 9.03, p < .05$. There was a positive relation between Self-Criticism and ILE that almost attained statistical significance, $F(1, 63) = 3.09, p = .08$. These results generally support the hypothesis that dependent and self-critical subjects will differ in the perceived stressfulness of certain life events. That is, Dependency was significantly related to ALE but not to ILE, and there was a positive association of Self-Criticism with ILE but not with ALE.

Anacletic and Introjective Attitudes and the Appraisal of Life Events. The final regression analyses investigated the relation between ADAS,

Table 3. Regression Analyses for Perceived Stressfulness of Life Events. Using Dependency and Self-Criticism as Predictors and Controlling for Scores on the Beck Depression Inventory

Dependent variable	Increments in % variance predicted			Total % variance predicted
	Dep	S-C	Dep \times S-C	
ALE	12.3*	0.1	1.4	13.8
ILE	1.9	4.3†	.8	7.0

Note. DEP = Dependency; S-C = Self-Criticism; ALE = Anacletic Life Events; ILE = Introjective Life Events. The BDI was always entered first, and the percentage increments reflect the contribution of a predictor when it was entered after the other predictor. The error term from the regression equation containing all predictor terms was used for all significance tests.

* $p < .05$.

† $p = .08$.

Table 4. Regression Analyses for Perceived Stressfulness of Life Events, Using ADAS and IDAS as Predictors and Controlling for Scores on the Beck Depression Inventory

Dependent variable	Increments in % variance predicted			Total % variance predicted
	ADAS	IDAS	ADAS × IDAS	
ALE	9.2*	0.1	5.4*	15.4
ILE	0.4	4.8†	0.1	5.2

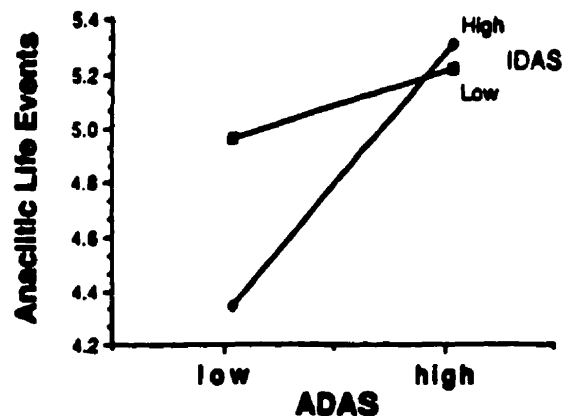
Note. DEP = Dependency; S-C = Self-Criticism; ALE = Anaclitic Life Events; ILE = Introjective Life Events. The BDI was always entered first, and the percentage increments reflect the contribution of a predictor when it was entered after the other predictor. The error term from the regression equation containing all predictor terms was used for all significance tests.

* $p < .05$.

† $p = .07$.

IDAS, and the appraisal of anaclitic and introjective life events. The BDI was entered first in the regression equation, followed by the predictor variables ADAS and IDAS (in both orders) and their product term. The results are presented in Table 4. For anaclitic life events, a significant effect was obtained for ADAS, $F(1, 63) = 6.9$, $p < .05$; but that effect was qualified by a significant interaction of ADAS and IDAS, $F(1, 63) = 4.0$, $p < .05$. To clarify the nature of the interaction, the regression equation was used to predict ALE for high and low levels of both ADAS and IDAS (1 standard deviation above or below the mean for each variable). As can be seen in Figure 2, ADAS produced higher ratings on ALE, in agreement with our predictions, but only when IDAS was high. For low levels of IDAS, ADAS failed to predict more negative appraisals for anaclitic life events. Surprisingly, low ADAS-high IDAS subjects appraised anaclitic life events as less stressful than did the low ADAS-low IDAS subjects.

For introjective life events, IDAS almost reached significance, $F(1, 63) = 3.35$, $p = .07$, and was the only variable accounting for an appreciable

**Figure 2.** Anaclitic life events as a function of anaclitic (ADAS) and introjective (IDAS) dysfunctional attitudes.

percentage of the variance in ILE. In summary, the results for anacletic and introjective life events provided partial support for the hypothesis relating dysfunctional attitudes with the appraisal of concordant life events as stressful. An anomalous finding that requires clarification was the significant interaction of ADAS and IDAS for the appraisal of anacletic life events.

DISCUSSION

The present study demonstrated that Dependency and Self-Criticism were related to higher scores on the Dysfunctional Attitude Scale. The relation was significant independent of depression level, and it could be inferred that the depressogenic attitudes of dependent and self-critical individuals are not simply concomitants of mood but are relatively stable cognitive structures that constitute predisposing vulnerability factors for depressive affective states. Statistical control does not substitute for longitudinal research, but the results are encouraging.

The present study also demonstrated that it is possible to differentiate the types of attitudes present in dependent and self-critical individuals; the anacletic and introjective dysfunctional attitudes were significantly related to the corresponding Dependency and Self-Criticism scales. Self-Criticism also accounted for a small but significant proportion of the variance in ADAS. This could be attributed to the ambiguous meaning of some of the anacletic DAS items. For example, "My value as a person depends greatly on what others think of me" could be interpreted by self-critics as "My value as a person depends greatly on how others evaluate or respect me." The Dependency and Self-Criticism interaction effect also indicated that elevated scores on both scales were associated with significantly higher ratings on ADAS. This is interesting in light of Blatt et al.'s (1982) finding that patients with elevated scores on Dependency and Self-Criticism displayed the most severe clinical symptoms. However, the use of a student sample precludes generalizing the findings to clinically depressed populations without further empirical study.

Research investigating the stability of the DAS in clinically depressed samples has provided mixed support for Beck's theory. As mentioned by Segal and Shaw (1986), the research findings are split, with three studies (Hamilton & Abramson, 1983; Hollon, Kendall, & Lumry, 1986; Silverman, Silverman, & Eardley, 1984) reporting normal DAS scores in remitted depressives and three others (Dobson & Shaw, 1986; Eaves & Rush, 1984; Giles & Rush, 1984) finding elevated dysfunctional attitudes upon remission. The equivocal nature of these results may be attributable to the fact that not all depressed patients are cognitively vulnerable to depression. Individual patients may vary in terms of the relative contribution of cognitive structures to their symptomatology. It is possible that dysfunctional attitudes are more prominent in depressives characterized by dependency and/or self-criticism.

The DEQ scales were related to the perception of certain types of events as

more stressful, even when the effect of mood was controlled. As predicted, Dependency was associated with significantly higher levels of perceived stress for hypothetical interpersonal events and was unrelated to achievement-failure events. For Self-Criticism, a relation approaching significance ($p = .08$) was obtained for achievement-related events but not for interpersonal events. Although these results pertain to hypothetical events, they are nonetheless consistent with previous research examining the response of dependent and self-critical individuals to actual life events (Hammen et al., 1985) and with laboratory analogues of rejection and failure (Zuroff & Mongrain, 1987).

Anaclitic dysfunctional attitudes were related to the perception of concordant life events as stressful, and introjective attitudes tended to predict perception of concordant events. This was true independent of current mood state. Olinger and colleagues (1987) reported that individuals scoring high on the DAS showed an increase in depression with the occurrence of contingent life events and rated attitude-relevant life events as having a greater emotional impact. Olinger and colleagues' results are consistent with the current findings, and both studies point to the importance of an interactive process involving dysfunctional attitudes and attitude-related events.

A significant ADAS \times IDAS interaction effect was also obtained for the appraisal of anaclitic life events. Surprisingly, high scores on IDAS combined with low scores on ADAS were associated with lower perceived stress for anaclitic life events. This seems to imply that holding exclusively introjective attitudes inoculates individuals against interpersonal stresses. It may be that self-critical individuals, who are likely to score high on the IDAS, react against or deny the impact of interpersonal losses.

In summary, the present results suggest that it is possible both to identify personality variables that predict attitudinal vulnerabilities to depression and to specify the content of those cognitive predispositions. Thus, anaclitic and introjective dysfunctional attitudes may be understood as components of dependent and self-critical individuals' vulnerabilities. These attitudes consist of propositions about the self that involve necessary conditions for the maintenance of psychological well-being, such as being loved or being successful (Olinger et al., 1987). It is reasonable to suppose that when these conditions are not met (that is, with the occurrence of attitudinally related events), negative schemata are activated and depression ensues.

Several important limitations of the current findings need to be addressed. First, the stress appraisal measure consisted of hypothetical life events, and it is difficult to determine whether the results are generalizable to real-life events. Also, this study offers only correlational results, and a prospective design documenting life events in an ongoing fashion would be required to rigorously test the stability of dysfunctional cognitions and their interaction with life stresses. It is also important to note that the study involved undergraduate female subjects, and this limits the generalizability of the findings. Future research should address this issue by including in a longitudinal design a broader sample with diverse levels of psychopathology.

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Note on Data Analyses of Study #1

The use of raw DEQ scores in multiple regression analyses poses certain problems when extreme groups of subjects are selected. Since the distribution of scores is not continuous, a more appropriate strategy involves the categorization of the personality variables. For the results of the first article, additional hierarchical regressions were performed with high or low scores on Dependency and Self-Criticism contrast-coded as +1 or -1, and their interaction represented by the product of the contrast-coded vectors. The results remained largely the same as those that are reported in the first article. However, the interaction of Dependency and Self-Criticism for the prediction of the anacletic dysfunctional attitudes, controlling for levels of depression, was no longer significant using contrast-coded vectors, $F(1,62) = .56$, $p > .4$. Also, the effect of Self-Criticism for the prediction of introjective life events changed from a probability of .08 to a probability of .09.

A Motivational Analysis of Negative and Positive Affect
in Dependent and Self-Critical Students

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Running Head: MOTIVATION AND AFFECT

Abstract

Subjects were selected according to their scores on the Dependency and Self-Criticism scales of the Depressive Experiences Questionnaire (Blatt, D'Afflitti & Quinlan, 1976). A total of 152 men and women (dependent, self-critical, mixed or control) filled out the Personal Striving Assessment Packet (Emmons, 1989) and self-monitored their moods twice daily for seven consecutive days. Dependency and Self-Criticism in both men and women were related to higher levels of negative affect. Self-Criticism in both sexes was related to lower levels of positive mood; in women, Dependency had a small but significant impact on positive affect. Subjects' personal strivings were categorized as involving needs for intimacy, affiliation, achievement, or power. Dependency in women was related to a significantly greater number of intimacy strivings. The self-critical women reported fewer affiliative and intimacy strivings, and a greater number of achievement strivings. Dependency in men was related to a greater number of intimacy and affiliative strivings, and fewer achievement strivings. Self-Criticism in men involved a lower number of affiliative strivings. The three striving characteristics which best predicted negative affect in both men and women were ambivalence, low clarity of means, and low satisfaction with progress. For positive affect, the significant predictors for women were importance, environmental opportunities and social

desirability of strivings. For men, the best predictors of positive affect were progress made towards the strivings, and happiness in the achievement of strivings. Path diagrams are used to summarize the links between personality, striving dimensions and affect.

A Motivational Analysis of Affective Correlates of
Dependency and Self-Criticism

The purpose of this paper is to document motivational aspects of personality styles related to depression. These motivational properties should add to our understanding of the dynamics of dependent and self-critical people and help to explain their experience of greater levels of negative affective states.

Blatt (Blatt & Shichman, 1983; Blatt, 1990) proposed two fundamental lines in personality development involving 1) the ability to relate to others in mature and satisfying ways, and 2) the development of a positive and integrated self-concept. These two processes normally interact in self-enhancing ways throughout life. However, developmental disruptions may result in the intensification of one process over the other. The dependent style is characterized by an exaggerated preoccupation with interpersonal relationships and constant concerns with obtaining reassurance and love, at the expense of the development of a consolidated and autonomous identity. The self-critical personality exhibits excessive self-evaluative concerns, and displays high personal standards and needs for recognition, at the expense of interpersonal investments (Blatt, 1974, 1990).

Each personality configuration is prone to distinctive depressive experiences (Zuroff & Mongrain, 1987), and each has been shown to be differentially vulnerable to particular

life events such as achievement failure or interpersonal stressors (Hammen, Marks, Mayol & deMayo, 1985; Nietzel & Harris, 1990; Zuroff & Mongrain, 1987). In a recent meta-analytic review of the different studies investigating the relationship between Dependency, Self-Criticism and depression, Nietzel and Harris (1990) reported that both constructs have a significant impact on depression, with Self-Criticism consistently producing the larger effect sizes.

Other clinical researchers have discussed subtypes of depressive personalities that parallel those proposed by Blatt (1974, 1990). For example, Bowlby (1982) described predisposed individuals as "anxiously attached" and needy of interpersonal contact or as "compulsively self-reliant." Arieti and Bemporad (1980) have also distinguished the "dominant other" from the "dominant goal" type of depressive, based on clients' exclusive reliance on idealized relationships for gratification or over-valued goals for a positive sense of self. Similarly, Beck (1983) has discussed the socially dependent (sociotropic) and autonomous vulnerable personalities based on the investments in interpersonal experiences or in personal achievements for the maintenance of self-worth. Robins and his colleagues have investigated the constructs of sociotropy and autonomy in relation to particular types of life events (Robins & Block, 1988) and have related the constructs to groups of

depressive symptoms (Robins & Luten, 1991). Measures of "Need for approval from others" and "Performance Evaluation" have also been derived from the Dysfunctional Attitude Scale (Weissman & Beck, 1978) and have been related to measures of depression (Segal, Vella, & Shaw, 1989).

Several studies have examined the conditions under which vulnerable personalities become depressed, that is, with the occurrence of naturally occurring (Hammen et al., 1985) or experimentally induced stressors (Blaney & Kutcher, 1990; Zuroff & Mongrain, 1987). This research generally found Dependency to be related to depressive outcomes in the face of interpersonal stressors, whereas Self-Criticism was related to depression with the occurrence of achievement failure events, but not always exclusively so (see Nietzel & Harris, 1990).

Relatively little work has looked at explanatory mechanisms underlying the vulnerability of dependent and self-critical people. Some cognitive variables, such as dysfunctional attitudes and attributional style (Mongrain & Zuroff, 1989; Brown & Silberchatz, 1989) have been documented. In our opinion, however, more reasons why dependents and self-critics are at risk for negative affective states remain to be investigated.

We chose to concentrate our efforts on motivational variables because we believed that part of the reason some individuals are vulnerable to negative affect is that their

self-esteem is invested in a narrow range of roles or goals. More specifically, we felt that dependent individuals may be overly committed to interpersonal goals without alternate sources of self-definition. In contrast, self-critics' investment in particular accomplishments as their sole source of self-esteem, could be the source of their own vulnerability. This proposal is consistent with the theories of vulnerable personalities mentioned earlier (e.g. Arieti & Bemporad, 1980; Beck, 1983). The idea is also similar to the self-worth contingency model proposed by Kuiper and Olinger (1986). Oatley and Bolton (1985) and Power (1987) have also concluded that depression results from the disruption of crucial relationships or endeavours which serve to define an individual's self-worth.

There were two separate motivational aspects which we were interested in studying. First we wanted to document the content of dependent and self-critics' goals, to test the overinvestment hypothesis described earlier. Second, we wanted to investigate the properties of these individuals' motive system. Several theories of depression have described motivational deficits, such as low expectancies of success, low reinforcement value of goals, and helplessness (Abramson, Teasdale, & Seligman, 1978; Hoberman & Lewinsohn, 1985; Layne, 1980; Rehm, 1977). We wanted to see whether certain "depressogenic" motivational characteristics would apply to Dependency and Self-Criticism.

Emmons' (1986, 1989a) "personal striving" construct appeared particularly well-suited to address those issues. Emmons (1989a) argued that important information about personality is contained in what a person typically tries to do. Personal strivings can represent an instantiation of more global motives such as affiliation or achievement. For example, an individual can try to "be as nice to others as possible" or "achieve better grades." Each striving can be fulfilled in a variety of ways involving separate behaviours. For example, someone who tries to be nice may have different goals of being helpful to family members, being available for friends, doing volunteer work, etc. Thus, personal strivings lie between global motives and concrete action plans in the hierarchy of motivation, and are at a level of analysis that conveys both idiographic and nomothetic information about an individual (Emmons, 1989a). Individuals have conscious access to what "they typically try to do" but they may not be aware of their deeper motivational dispositions.

We were interested in the relations between Dependency, Self-Criticism, and the global motive content of their personal strivings. Coding criteria based on McClelland's (1985) dimensions allow the categorization of personal strivings into achievement, power, affiliation and intimacy categories (Emmons, 1989b). Additional categories, such as self-sufficiency and personal growth, have been constructed

to account for all types of strivings. However, we will focus on McClelland's motive categories as they are theoretically relevant to our personality constructs. Achievement, affiliation, intimacy and power strivings have been shown to be significantly correlated with the corresponding needs derived from the Thematic Apperception Test scores (Emmons & McAdams, 1989).

Personal strivings can also be evaluated along several important dimensions using the "Personal Strivings Assessment Scales" (Emmons, 1986). These dimensions have been shown to relate to subjective well-being in meaningful ways. For example, subjects' estimated probability of success and ambivalence towards their strivings have been found to be significant predictors of negative affect. Positive affect has been related to past fulfillment of strivings and striving value (Emmons, 1986). Thus, individuals' attitudes about what they typically try to do were shown to have an important impact on their moods.

We wanted to document the striving characteristics of dependents and self-critics and determine whether these would relate in meaningful ways to their mood. We decided to assess both negative and positive affect through daily adjective ratings. Multiple concurrent ratings of mood provide valid and reliable measures of affect which we felt would supplement previous data which focused exclusively on single retrospective measures. Additionally, we were

interested in assessing positive mood in dependent and self-critical subjects since this has not been reported before, and because positive affect is of diagnostic value in the differentiation between anxiety and depressive disorders (Watson & Kendall, 1990).

Guiding Hypotheses:

1. We expected Dependency and Self-Criticism in men and women to be related to higher levels of negative affect. Because Self-Criticism has been linked to greater levels of depression (Nietzel & Harris, 1990), we expected this personality variable to exert a stronger effect than Dependency on negative affect. Depression is characterized by an absence of positive affect, so we expected Self-Criticism to also be significantly (negatively) related to positive mood. Our prediction for Dependency was that the link to positive mood would be weaker, as the link to depression has also shown to be more modest (Nietzel & Harris, 1990).

2. We predicted that Dependency, in men and women, would be related to a greater number of affiliative and intimacy strivings, and to fewer achievement strivings. For Self-Criticism, we predicted the opposite pattern, with lower numbers of affiliative and intimacy strivings, and a greater number of achievement strivings. We had no specific prediction for the power category.

3. With respect to the striving characteristics, Emmons (1986) found that negative affect was best predicted by lower probability of success ratings and ambivalence towards the strivings. Positive affect was found to be predicted by value (compiled by adding happiness ratings if strivings are achieved and unhappiness ratings if they are not achieved), importance, and past fulfillment of strivings. We planned to attempt to replicate these findings. In addition, we planned to determine the striving dimensions that were the best predictors of negative and positive affect in our sample and investigate their relationship to Dependency and Self-Criticism. We intended to combine the previous results and evaluate path models in which striving dimensions would serve as mediators between Dependency, Self-Criticism, and negative and positive affect.

In summary, the primary purpose of the present study was to investigate possible reasons why Dependency and Self-Criticism would be related to lower affective well-being. We were interested in the types of strivings reported by these individuals and their perception of their goals.

Method

Subjects

The subjects were selected according to their scores on the Dependency and Self-Criticism scales of the Depressive Experiences Questionnaire (DEQ). Dependency and Self-

Criticism scores were derived from the scoring coefficients and factor weights reported by Blatt et al. (1976).

DEQs were distributed in February 1990 to large undergraduate classes in both the Arts and Science faculties at McGill University. Questionnaires were completed at home and returned by 591 women and 310 men. Four groups of men and women (dependent, self-critical, mixed, and control) were selected for the study. For the female sample, dependent subjects scored in the upper 25% of the Dependency scale, while scoring in the lower 25% of the Self-Criticism scales; self-critical subjects scored in the upper 25% on Self-Criticism and the lower 25% of the Dependency scale; the mixed group scored in the upper 25% of both scales; and the control group scored in the lower 25% of both scales. The male subjects were selected in the same fashion, but a 30% cut-off point on the Dependency and Self-Criticism scales was employed to obtain adequate group sizes. The final sample was comprised of 76 women (19 dependent, 19 self-critical, 19 mixed, 19 control) and 76 men (21 dependent, 18 self-critical, 18 mixed, 19 control). Only the subjects scoring in the upper and lower ends of the Dependency and Self-Criticism scales were asked to participate in the study. The mean age of the sample was 20 years.

Procedure

Subjects were contacted by phone four to eight weeks after they returned the DEQ and were asked to participate in a study on mood and goals. Subjects first completed a battery of tests in small groups of three to eight. The constructs that are the focus of the current report were part of a take-home package which was to be filled out over the following one-week period. The package included the Personal Striving Assessment Packet (PSAP; Emmons, 1989) and mood scales to be answered twice daily over the next seven consecutive days. Subjects were asked to fill out the mood scales after lunch and before going to bed. The instructions were: "Rate how you have been feeling for this first (or second) half of TODAY." They were asked to return the package one week later and were paid \$20.00 for their participation in the entire project. They were also eligible for a \$150.00 prize in a lottery held at the end of the study.

Dependent Measures

Positive and Negative Affect. The mood scales were comprised of nine adjectives identified in factor analytic work as the best representatives of negative and positive affect (Diener & Emmons, 1985). The four positive adjectives included: happy, joyful, pleased and enjoyment/fun. The five negative adjectives were: unhappy, frustrated, depressed/blue, angry/hostile and worried/anxious. These

scales have demonstrated high internal consistencies and temporal stabilities (Diener & Emmons, 1985). They show higher negative correlations with one another than do other positive and negative affect scales (Watson, 1988), particularly for short intervals, for which the correlations are moderate (Diener & Emmons, 1985). The adjectives were rated on a 7-point scale (1=not at all, 7=extremely) and the average scores of positive and negative adjectives constituted the negative and positive affect dependent variables.

Predictor Variables

1. Depressive Experiences Questionnaire. The DEQ includes 66 Likert items that tap a broad range of feelings about the self and others but do not assess the primary symptoms of clinical depression (Blatt et al., 1976). The Dependency and Self-Criticism scales of the DEQ have accumulated considerable construct validity. They have been shown to relate in theoretically meaningful ways to early parent-child relationships (Koestner, Zuroff, & Powers, 1991; McCranie & Bass, 1984), choice of romantic partner (Zuroff & de Lorimier, 1989), and to differential vulnerability to various types of life events (Zuroff & Mongrain, 1987). Both scales show good convergent and discriminant validity (Blaney & Kutcher, 1991) and have been shown to be stable over a one-year period in a college sample (Zuroff, Igreja, & Mongrain, 1990).

2. Personal Striving List. Each subject generated a list of 15 personal strivings, described as "the things you are typically trying to do in your everyday behaviour" (Emmons, 1989a). The instructions provided several examples, and it was made clear that strivings involve what one tries to do, regardless of whether one is successful or not. Each subject had to complete open-ended statements the stem of which was "I typically try to_____." Lists of strivings have been shown to be reasonably stable over time (Emmons, 1989a).

3. Striving Assessment Scales. Subjects were asked to rate each of their 15 strivings on 18 dimensions, which were selected by Emmons (1986) according to their relevance in the motivation literature. The dimensions are listed in Table 1 with their actual instructions. Each dimension was also illustrated with concrete examples. The ratings were made on 5-point scales, unless otherwise noted.

Insert Table 1 about here

These scales have a reported mean stability correlation coefficient of .60 over a three-month interval (Emmons, 1986).

Coding of Strivings

Strivings were categorized into one of the four major motive dispositions of achievement, affiliation, intimacy,

Table 1

Instructions for the Striving Dimensions

Happiness : How much joy or happiness do you or will you feel if you are successful in the striving?

Unhappiness: How much sorrow or unhappiness do you or will you feel when you fail to succeed in your striving?

Ambivalence: How much unhappiness would you feel if you succeeded in your striving?

Commitment: Indicate how strongly committed you are to the striving.

Importance: Indicate how important your striving is to you.

Past attainment: In the recent past, how successful have you been in the striving? (answered in percentage on a 9-point scale).

Probability of success: Write the number which indicates how likely you think you will succeed in the striving (answered in percentages on a 9-point scale).

Confidence: How confident do you feel about the accuracy of your answer to the probability of success question?

Probability if no action: How likely is it that you will be successful in the striving if you do not try? (answered on a 9-point scale)

(Table continues)

Environmental Opportunity: To what extent do the circumstances in your life typically help or hinder your attempts to be successful in the striving?

Effort: Write the number which corresponds to how much effort you typically exert in trying to succeed in each striving.

Difficulty: Write how difficult it usually is to succeed in the striving.

Causal Attribution: Does success in the striving depend more on internal or external factors?

Social desirability: How socially desirable do you think the striving is?

Clarity: How clear an idea do you have of what needs to be done in order for you to succeed in the striving?

Impact: How many other strivings are affected by success in this striving?

Progress: How satisfied are you with the amount of progress you have been making toward each of you strivings? (answered on a 7-point scale)

Note. From the "Personal Striving Assessment Packet" by R. A. Emmons, 1986. Copyright 1986 by R. A. Emmons. Reprinted by permission.

or power according to the criteria described by Emmons (1989b). Some strivings did not belong to any of these four types and were coded in the remaining categories. The strivings in the achievement category involved "reference to achieving or accomplishing a goal; competing with a standard of excellence; concern with doing a task well." The criteria for the affiliation category involved: "concern for or desire to establish, maintain, or repair interpersonal relations; concern with seeking approval and acceptance from others; avoiding loneliness and rejection." The intimacy category involved: "commitment and concern for another person; interpersonal relations involving positive affect; concern with loyalty and responsibility toward others; helping others; strivings that emphasize the quality of relationships rather than quantity." Finally, the criteria for the power category involved: "concern with having impact, control, or influence over others; dominating, persuading, or convincing other; seeking fame or public attention; comparison or competition with others." Several examples for each category were provided in the coding manual (Emmons, 1989b). Two raters coded 25% of the striving lists and achieved an agreement rate of 80%, which is similar to the reliability data reported by Emmons (Emmons & McAdams, 1989).

Results

The results are presented in the following sequence: first, we report the effects of Dependency and Self-Criticism on positive and negative affect. Then we present the effects of the personality dimensions on the different motive categories. For the affect and motive category analyses, the data analytic strategy involved hierarchical multiple regression (Cohen & Cohen, 1983) with high or low scores on Dependency and Self-Criticism contrast-coded as +1 or -1 and their interaction represented by the product of the contrast-coded vectors. The data were analysed using regression techniques because we regard the personality variables as continuous dimensions. Extreme groups were chosen to maximize statistical power; however, the personality constructs were not conceptualized as discrete types. The effect of each personality style was assessed by calculating the increments in variance when either was entered as the second predictor, after the other DEQ variable and before the interaction term. Each sex is presented separately because different cut-off scores were used to obtain the groups.

We then consider the relationship between motive dispositions and affect. Positive and negative affect were regressed on the four motive categories and we report the effects of each motive variable when it was entered last, controlling for the effects of the other variables.

We then examine the striving dimensions as mediators of positive and negative affect. All of the dimensions with significant bivariate relations with positive and negative affect were used as potential predictors; the best models were chosen using the SAS forward selection procedure.

We then combine the results in path diagrams which illustrate the links between personality styles, striving dimensions and positive and negative affect. The path coefficients are the standardized regression weights (Loehlin, 1987).

Positive and negative affect in women were significantly and negatively correlated, $r = -.55$, $p < .001$. The size of this correlation corresponds to "high emotion times" (Diener & Emmons, 1985) in which one strong emotion overshadows the experience of the other. For men, the correlation only approached significance, $r = -.21$, $p = .08$, and was significantly different from the correlation obtained for women, $z = 2.58$, $p = .05$. The sexes did not differ, however, in their overall levels of negative or positive affect.

Effects of Dependency and Self-Criticism on Positive and Negative Affect

For women, Dependency, $F(1, 72) = 6.95$, $p < .05$, and Self-Criticism, $F(1, 72) = 40.23$, $p < .001$, both were significantly related to negative affect. For positive affect, Dependency, $F(1, 72) = 3.90$, $p = .05$, and Self-Criticism,

$F(1, 72) = 27.54, p < .001$, also had significant, negative effects. The interaction between personality factors was not significant. Means on the affect measures are indicated in Table 2.

Insert Table 2 about here

For men, Dependency, $F(1, 72) = 12.19, p < .001$, and Self-Criticism, $F(1, 72) = 19.96, p < .001$, both contributed significantly to negative affect. For positive affect, only Self-Criticism, $F(1, 72) = 4.04, p < .05$, had a significant, negative impact. For men as well, the interactions between the personality dimensions were not significant.

Our predictions for the relations between personality and affect were confirmed, except that Dependency was not related to lower levels of positive affect in men. As indicated in Table 3, the effect of Self-Criticism on mood was stronger than the effect of Dependency in both men and women.

Insert Table 3 about here

Effects of Dependency and Self-Criticism on Motive Categories

The correlations between motive categories were negative and small to moderate, as indicated in Table 4.

Table 2

Means and Standard Deviations on Negative and Positive Affect

	Women		Men	
	<u>Means</u>	<u>SD</u>	<u>Means</u>	<u>SD</u>
Negative Affect				
Control	1.5	.42	1.8	.46
Dependent	2.0	.82	2.1	.64
Self-Critical	2.6	.79	2.3	.79
Mixed	2.9	.75	3.1	.91
Positive Affect				
Control	4.9	.81	4.0	.87
Dependent	4.4	1.1	4.1	.78
Self-Critical	3.7	.89	3.7	.87
Mixed	3.4	.65	3.7	.83

Note. SD= Standard Deviation. N for women is 76 (19 in each group). N for men is 76 (19 control, 21 dependent, 18 self-critical and 18 mixed).

Table 3

Percent Variance in Negative and Positive Affect Accounted
for Dependency and Self-Criticism

	Women	Men
Negative Affect		
Dependency	6% **	11% ***
Self-Criticism	34% ***	19% ***
Positive Affect		
Dependency	4% *	n.s.
Self-Criticism	27% ***	5% *

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

Insert Table 4 about here

For the content categories, one female subject was omitted from the analyses because she only provided 10 strivings. In women, Dependency was related to a significantly greater number of affiliative strivings, $F(1, 71) = 4.57, p < .05$, while Self-Criticism had a significant negative effect, $F(1, 71) = 7.76, p < .01$. These effects were qualified by a significant interaction, $F(1, 71) = 8.32, p < .01$. Orthogonal contrasts comparing the four groups confirmed that the self-critical group, $F(1, 71) = 20.50, p < .001, (\bar{X} = 1.8)$, was significantly lower on affiliation than the dependent ($\bar{X} = 3.4$), mixed ($\bar{X} = 3.4$), and control groups ($\bar{X} = 3.6$) who did not differ.

For the intimacy category in women, Dependency was significantly positively related, $F(1, 71) = 22.77, p < .001$, while Self-Criticism produced a significant negative effect, $F(1, 71) = 8.20, p < .01$.

Dependency in women was also related to fewer achievement strivings, $F(1, 71) = 14.85, p < .001$, but the effect was qualified by a significant interaction with Self-Criticism, $F(1, 71) = 4.06, p < .05$. Contrasts between group means indicated that self-critics had a greater number of achievement strivings ($\bar{X} = 3.6$) than the control ($\bar{X} = 2.4$), dependent ($\bar{X} = 1.8$), and mixed group ($\bar{X} = 1.6$),

Table 4

Correlations Between Motive Categories

Women (N= 75)				
	Achievement	Affiliation	Intimacy	Power
Achievement	--	-.25 *	-.24 *	n.s.
Affiliation	-.25 *	--	n.s.	n.s.
Intimacy	-.24 *	n.s.	--	-.39 **
Power	n.s.	n.s.	-.39 **	--

Men (N= 76)				
	Achievement	Affiliation	Intimacy	Power
Achievement	--	-.29 *	n.s.	-.24 *
Affiliation	-.29 *	--	n.s.	n.s.
Intimacy	n.s.	n.s.	--	-.21 a
Power	-.24 *	n.s.	-.21 a	--

Note. a $p = .06$, * $p < .05$, ** $p < .001$.

$F(1,71) = 18.00, p < .001$. A second comparison showed that there was a trend for the dependent and mixed group to be lower than the controls on the number of achievement strivings, $F(1, 71) = 3.04, p < .10$.

For men, Dependency was associated with a greater number of intimacy strivings, $F(1, 72) = 10.74, p < .01$, and fewer achievement strivings, $F(1, 72) = 5.45, p < .05$. There was a trend for Dependency to be related to a greater number of affiliative strivings, $F(1, 72) = 3.60, p = .06$. Self-Criticism was related to fewer affiliative strivings, $F(1, 72) = 6.91, p < .01$. No interaction effects were obtained for men. Means and standard deviations on the striving categories for each group of subject are indicated in Table 5.

Insert Table 5 and 6 about here

A summary of the striving categories related to Dependency and Self-Criticism in men and women is found in Table 6.

In support of our hypotheses, Dependency in women was related to more intimacy strivings, and there was a trend for the dependent and mixed group to report fewer achievement strivings than controls. In contrast, Self-Criticism was related to fewer intimacy strivings. Subjects who were high on Self-Criticism and low on Dependency, the

Table 5

Group Means and Standard Deviations on the Striving
Categories

Women								
	Ach		Aff		Int		Pow	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Dependent	1.8	1.2	3.4	1.2	2.0	1.4	.4	.8
Self-Critical	3.6	2.1	1.8	1.3	.3	.6	.9	1.2
Mixed	1.6	1.3	3.4	1.8	1.0	1.0	.7	.9
Control	2.4	1.2	3.6	1.2	.6	.6	.6	.9
Men								
	Ach		Aff		Int		Pow	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Dependent	2.2	1.5	4.6	1.9	1.1	1.0	.8	1.2
Self-Critical	3.3	1.5	2.8	1.6	.4	.7	1.4	1.6
Mixed	2.1	2.0	3.5	1.7	1.5	1.2	1.4	1.9
Control	2.7	1.3	3.8	1.6	.6	1.1	1.5	2.0

Note. Ach=Achievement, Aff=Affiliation, Int=Intimacy,
Pow=Power.

Table 6

Summary of Striving Categories related to Dependency and Self-Criticism.

Dependency:

Women: More Intimacy ***

Less Achievement ^a

Men: More Intimacy **

More Affiliation ^a

Less Achievement *

Self-Criticism:

Women: Less Intimacy **

(If low on Dependency) Less Affiliation ***

More Achievement ***

Men: Less Affiliation **

Note. ^a $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

self-critics, reported fewer affiliative strivings and more achievement strivings. Contrary to our expectations, dependent women did not report a greater number of affiliative strivings.

Dependency in men was positively related to intimacy and affiliative strivings, and negatively related to achievement strivings. Male subjects scoring high on Self-Criticism reported lower levels of affiliation. These results are concordant with our hypotheses, but unexpectedly, Self-Criticism in men was not related to levels of intimacy or achievement.¹

Relations between Motive Categories and Positive and Negative Affect

The four types of motives were entered in regression equations for the prediction of positive and negative affect. For women, affiliation predicted lower levels of negative affect, $F(1, 70) = 10.81, p < .01$, controlling for the other motive categories. That is, being more affiliative was related to lower levels of negative affect. Affiliation also positively predicted positive affect, $F(1, 70) = 5.41, p < .05$.

For men, intimacy positively predicted negative affect, $F(1, 71) = 4.05, p < .05$. Surprisingly, for men, a greater number of intimacy strivings implied greater negative affect. No motive category significantly predicted positive affect. Since Dependency also positively predicted intimacy,

a partial link between Dependency and negative affect in men could be attributed to a greater number of intimacy strivings. This explanatory link is somewhat counter-intuitive and will be elaborated in the discussion section.

Overall, the relations between personality dimensions and affect were not readily interpretable in terms of the striving categories. We now turn our attention to the striving dimensions as alternate mediational variables between personality and affect.

Relations between Striving Dimensions and Positive and Negative Affect

The striving dimensions with significant bivariate correlations with positive and negative affect in men and women are reported in Table 7.

Include Table 7 about here

Our results replicate those obtained by Emmons (1986) if we consider the correlations between striving dimensions and affect. He reported that negative affect was most highly correlated with lower probability of success ratings and ambivalence towards the strivings. These dimensions were also significant in our sample (see table 7). He found positive affect to be predicted by value (combination of happiness, unhappiness dimensions), importance and past attainment of strivings, and these dimensions as well were

Table 7

Correlations Between Striving Dimensions and Affect

	Women		Men	
	NA	PA	NA	PA
Clarity of Means	-.59	.47	-.49	n.s.
Progress	-.50	.50	-.45	.35
Probability of Success	-.50	.47	-.47	n.s.
Difficulty	.50	-.39	.35	n.s.
Ambivalence	.45	-.31	.46	n.s.
Confidence	-.44	.39	-.45	.30
Past Attainment	-.42	.44	-.46	.26
Environmental Opportunity	-.40	.54	-.26	n.s.
Social Desirability	-.39	.40	n.s.	n.s.
Effort	.38	n.s.	n.s.	n.s.
Commitment	n.s.	.51	n.s.	.29
Importance	n.s.	.51	n.s.	.24
Happiness	n.s.	.46	-.29	.29
Impact	n.s.	n.s.	.37	n.s.

Note. NA= Negative Affect, PA= Positive Affect. N for women is 75 and N for men is 76.

For $r = .24$, $p < .05$; $r = .30$, $p < .01$; $r = .40$, $p < .001$.

significantly related to positive affect in our sample. Several of the correlation coefficients obtained in our larger sample were in fact higher in magnitude than those reported by Emmons (1986).

We then determined the best model including striving dimensions for the prediction of negative and positive affect. We used the forward selection strategy in the SAS package, which begins with no variable in the regression model. It considers all independent variables and adds the variable that has the largest F statistic for the model. The program then repeats the evaluation process for the variables remaining outside the model. Variables are added one by one until no remaining variable produces a significant F statistic.

The best model to account for negative affect in women included ambivalence, $F(1, 71) = 7.53, p < .01$, clarity of means, $F(1, 71) = 8.83, p < .01$, and progress made towards the strivings, $F(1, 71) = 4.90, p < .05$. (The F values are those when all three variables are entered in the model.) For positive affect, the best predictors were importance of strivings, $F(1, 72) = 16.38, p < .001$, environmental opportunities, $F(1, 72) = 27.75, p < .001$, and the social desirability of strivings, $F(1, 72) = 6.52, p < .05$.

For men, the same predictors as those of women were obtained for negative affect. Ambivalence, $F(1, 70) = 8.00, p < .01$, clarity of means, $F(1, 70) = 4.68, p < .05$, and

progress, $F(1, 70) = 8.13$, $p < .01$, all contributed significantly to negative affect. For positive affect, only happiness in succeeding, $F(1, 71) = 4.07$, $p < .05$, and progress made toward the strivings, $F(1, 71) = 6.79$, $p < .05$, contributed significantly to positive affect.

Effects of Dependency and Self-Criticism on the Striving Dimensions Predictive of Affect

Hierarchical multiple regression analyses were performed to test the effects of the DEQ factors on the striving dimensions empirically selected for the prediction of affect. The predictors of negative affect were greater ambivalence, lower clarity of means and lower progress made towards the strivings. In women, Dependency was related to all three: greater ambivalence, $F(1, 72) = 3.80$, $p < .05$, lower clarity of means, $F(1, 72) = 11.09$, $p < .01$, and lower progress, $F(1, 72) = 7.50$, $p < .01$. Self-Criticism was also significantly related to all three striving dimensions: greater ambivalence, $F(1, 72) = 16.99$, $p < .001$, lower clarity of means, $F(1, 72) = 16.67$, $p < .001$, and lower progress, $F(1, 72) = 44.67$, $p < .001$.

The predictors of positive affect for women were the importance, environmental opportunity and social desirability of strivings, all in the positive direction. Dependency was related to lower importance ratings, $F(1, 72) = 6.15$, $p < .05$. Self-Criticism was related to lower environmental opportunities, $F(1, 72) = 24.27$,

$p < .001$, and lower social desirability ratings, $F(1, 72) = 6.16$, $p < .05$. No interaction effect between personality variables was significant for women.

For men, two subjects (one self-critical, one mixed) failed to provide some of the ratings on the striving assessment scales, and were removed from those analyses. The predictors of negative affect for men were also ambivalence, clarity of means, and progress. Dependency was related to lower clarity of means, $F(1, 70) = 7.10$, $p < .01$. Dependency was also related to greater ambivalence, $F(1, 71) = 4.24$, $p < .05$, which was qualified by an interaction effect, $F(1, 71) = 4.15$, $p < .05$. Orthogonal contrasts were performed and the mixed group ($\bar{X} = 18.1$) was found to be significantly more ambivalent than the dependent ($\bar{X} = 10.6$), self-critical ($\bar{X} = 8.7$) and control subjects ($\bar{X} = 10.5$), $F(1, 71) = 9.20$, $p < .01$. Finally, Self-Criticism in men was negatively related to the satisfaction with progress dimension, $F(1, 71) = 5.06$, $p < .05$.

The predictors of positive affect in men were happiness at the accomplishment of strivings and progress made towards the strivings. Self-Criticism was already reported to entail lower progress ratings, and its negative relation to happiness approached significance, $F(1, 71) = 3.13$, $p = .08$.

Path Diagrams with Striving Dimensions as Mediators to
Positive and Negative Affect

Path diagrams in Figure 1 and 2 illustrate the regressions described in the previous two sections, combining the effects of Dependency and Self-Criticism on the striving dimensions predictive of affect. We will first highlight the mediational model linking personality to strivings dimensions and negative affect for men and women, and then present the models for positive affect.

Include Figure 1 about here

Negative Affect. The significant associations illustrated by the paths in the diagram suggest that contributors to negative affect in dependent and self-critical women are feelings of ambivalence about what they try to do, the perception of few environmental opportunities to realize their strivings, and the subjective sense that they are making little progress towards the achievement of their strivings. The mediational model explains 80% of the effect of personality on negative affect for women.

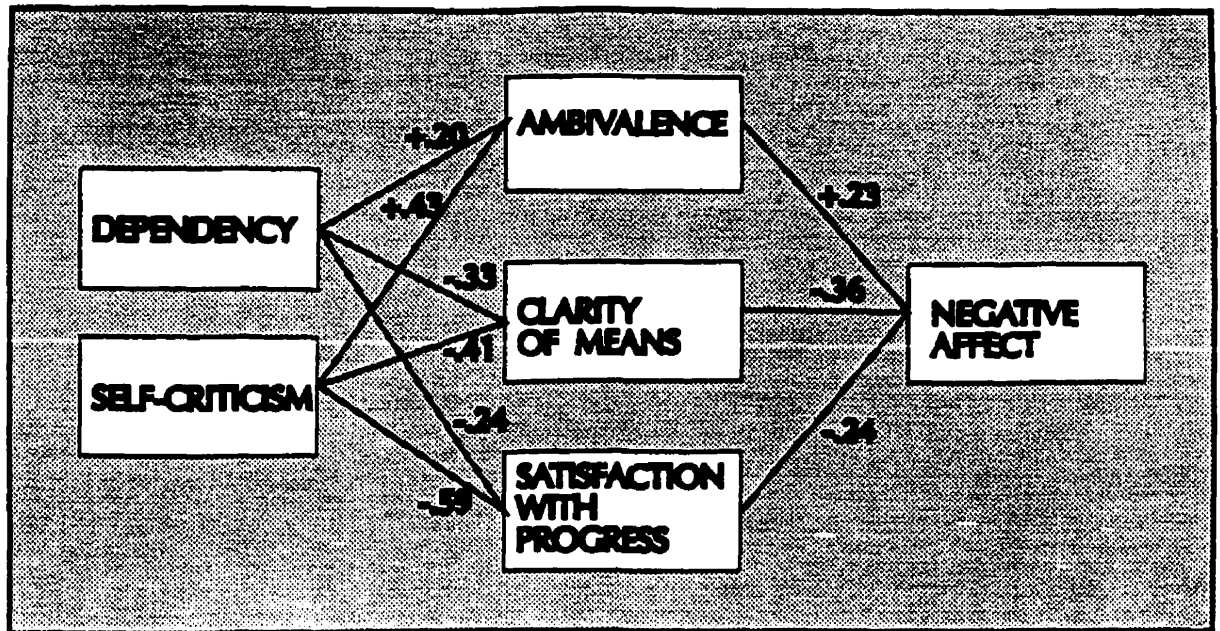
For men, Dependency and Self-Criticism are related to different predictors of negative affect. First, an additional box on the left illustrates the interaction between Dependency and Self-Criticism. Those scoring high on both scales are linked to the ambivalence mediator, which in

Figure Caption

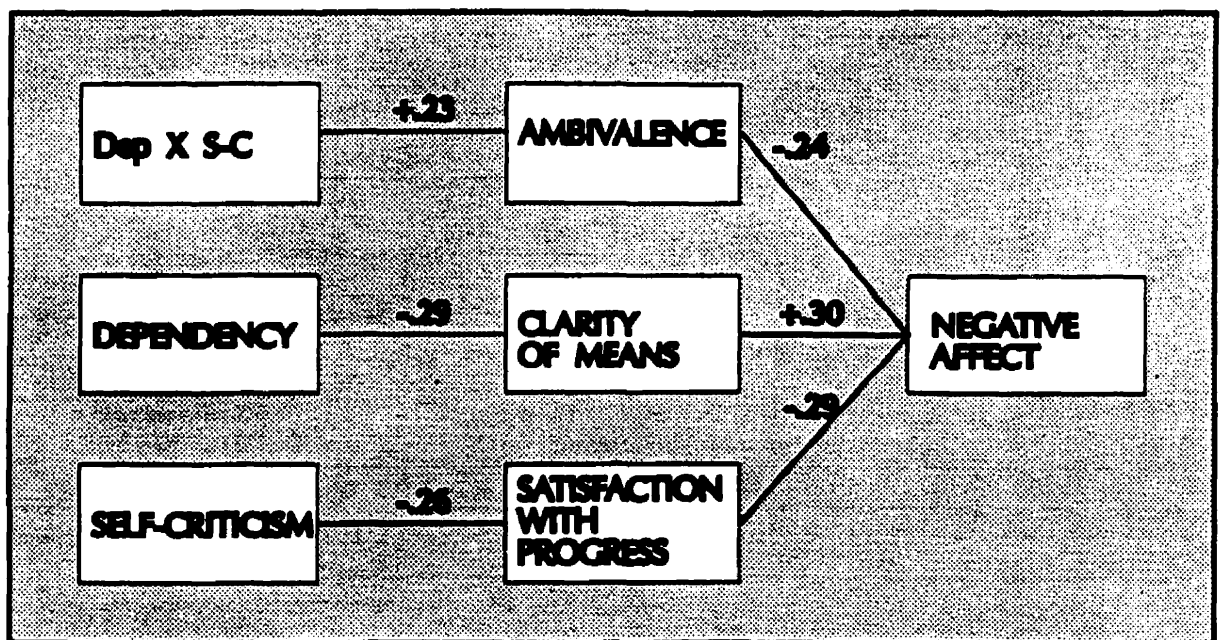
Figure 1. Path diagrams indicating mediating links between Dependency, Self-Criticism and negative affect in men and women. A third personality variable representing the mixed group was included for men, to account for the interaction effect between Dependency and Self-Criticism in the prediction of ambivalence. The mediators are attributes of the subjects's strivings and include ambivalence, clarity of means, and satisfaction with progress made in the achievement of strivings. The path coefficients represent standardized regression weights.

FIGURE 1

WOMEN (N=76)



MEN (N=74)



turn predicts negative affect. Dependency is linked to negative affect through lower clarity of means in the achievement of strivings. Self-Criticism is related to greater negative affect through the perception of little progress in the achievement of strivings. The mediational model accounts for 50% of the effect of personality on negative affect for men.

Positive Affect. Figure 2 depicts path diagrams linking the personality variables to a set of striving dimensions which predict positive affect.

Include Figure 2 about here

As illustrated in the model, Dependency in women could be related to lower levels of positive affect because these subjects do not consider their strivings important. The perception of fewer environmental opportunities to succeed and the lower social desirability of their strivings contribute to lower levels of positive mood in self-critical women. The model accounts for 84% of the effect of personality on positive affect.

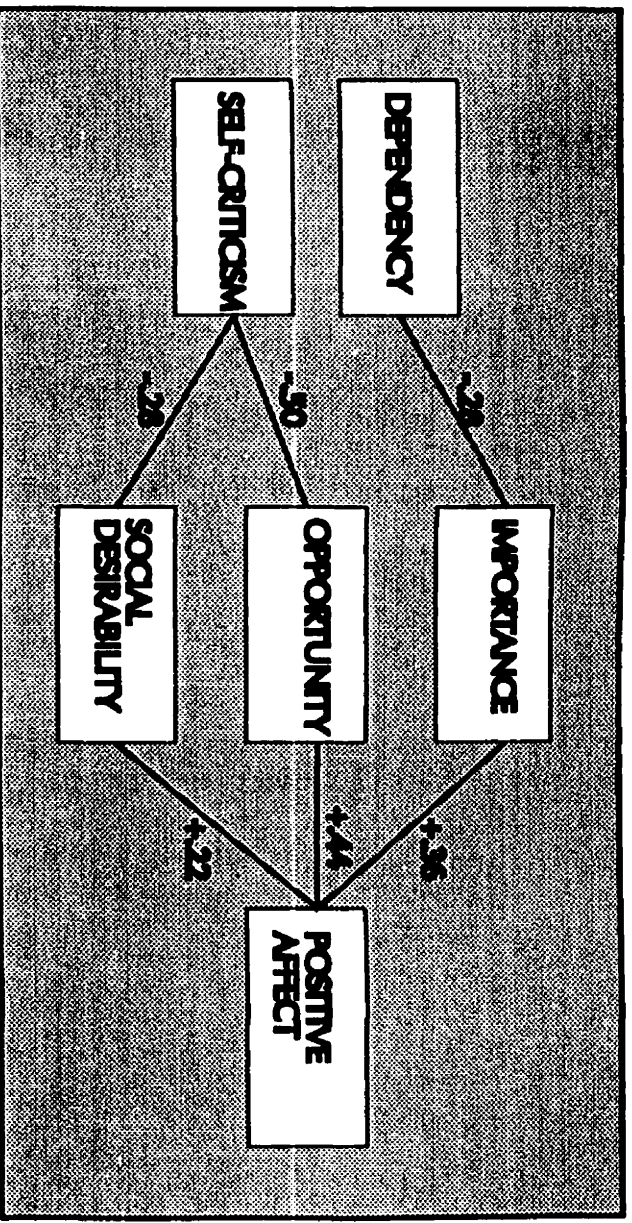
In men, the link between lower levels of positive affect and Self-Criticism can be understood in terms of lower happiness being anticipated at the accomplishment of strivings, and the report of little progress made towards the strivings. The model accounts for 80% of the effect of

Figure Caption

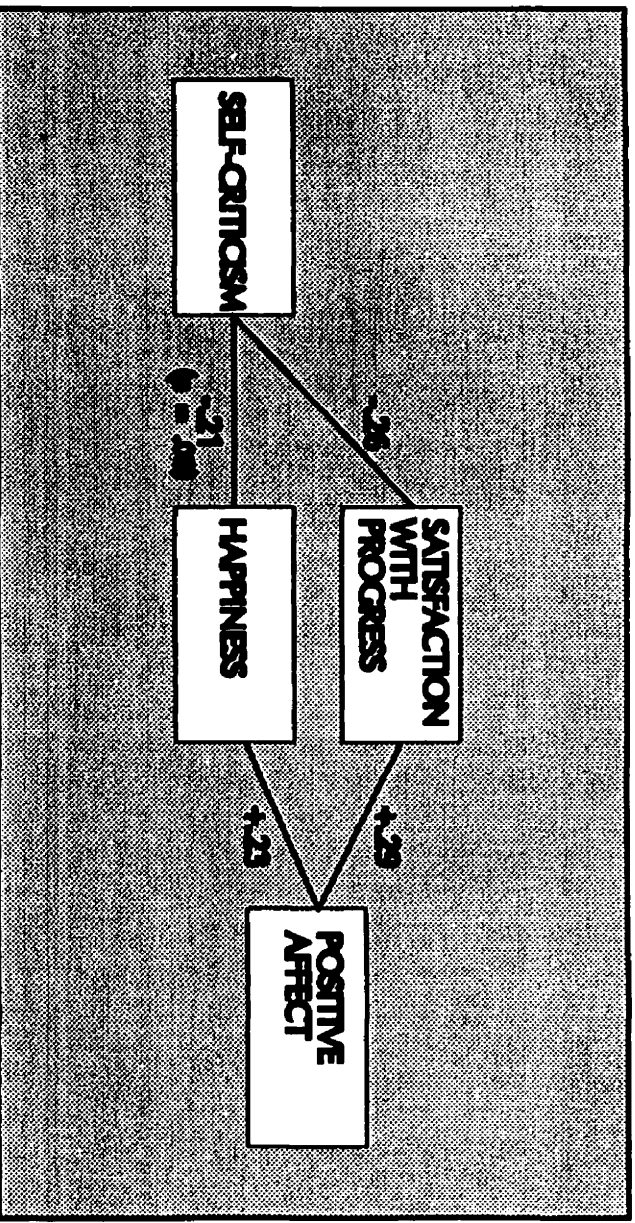
Figure 2. Path diagrams indicating mediating links between Dependency, Self-Criticism and positive affect in men and women. The mediators are attributes of the subjects' strivings and for women include rated importance of the strivings, environmental opportunities to fulfil them and the social desirability ratings. For men, the two mediators include satisfaction with progress and happiness felt at the achievement of strivings.

FIGURE 2

WOMEN (N=76)



MEN (N=74)



personality on positive affect.

To summarize, the three major motivational themes in our mediational models involve: negative evaluations of success in reaching one's goals (i.e., low progress ratings), helplessness (low clarity of means and few environmental opportunities), and low incentive value of one's goals (i.e., ambivalence experienced in reaching strivings, low social desirability, low importance and happiness in succeeding in the strivings). Variants of these themes have already been described in recognized cognitive-behavioral theories of depression (e.g. Abramson, Seligman & Teasdale, 1978; Hoberman & Lewinsohn, 1985; Rehm, 1977), and will be elaborated in the next section.

Discussion

We found that Dependency and Self-Criticism in men and women were related to higher levels of negative affect, and that Self-Criticism predicted lower levels of positive affect in both sexes. Dependency in women also had a small but significant negative effect on positive mood. Although the negative affect scales assess only the affective component of depression, our current results corroborate several previous findings that report higher depression scores for dependent and self-critical subjects (Nietzel & Harris, 1990). The use of self-monitoring over a week also extends previous results which have focused almost exclusively on single, retrospective affect measures. And

for the first time, we report on positive affect, which has recently been shown to be important in the differential diagnosis between depressive and anxiety disorders (Watson & Kendall, 1990). Depressive disorders are characterized by an absence of positive affect, while anxiety disorders are not. Self-Criticism was related to higher negative affect and lower positive affect in both sexes, suggesting that this personality dimension is closely associated with depression. Dependency is related to negative affect, but has little or no impact on positive mood, which means it could be a vulnerability marker for a wider range of pathology, including anxiety disorders.

Our next results were concerned with the types of strivings associated with Dependency and Self-Criticism. For men and women, Dependency was related to a greater number of intimacy strivings. In men, Dependency was also related to a greater number of affiliative strivings, and to fewer achievement strivings. The need for intimacy, at least for women, appears to be a more pronounced correlate of Dependency than the need for affiliation. This is consistent with Blatt's description of dependent individuals' symbiotic needs and demands for nurturance and affection (Blatt & Shichman, 1983), which can be met in intimate encounters. There was a trend for Dependency to be related to fewer achievement strivings in women, while for men the effect was significant. This suggests that these individuals' needs

revolve around the interpersonal domain, thereby limiting alternative sources of self-definition. According to Linville (1987), this lack of complexity in self-enhancing roles confers vulnerability to extreme negative reactions in the face of stress.²

Self-critical women (high on Self-Criticism and low on Dependency) endorsed a greater number of achievement strivings and fewer affiliative strivings. Self-Criticism in women was also associated with fewer intimacy strivings. Thus, the high Self-Criticism\low Dependency women showed an investment in the achievement domain, at the expense of the interpersonal domain. In men, Self-Criticism was related to fewer affiliative strivings. Thus, self-critics are not interpersonally oriented, and this is consistent with previous findings of self-critical college women showing lower self-disclosure and poor interpersonal skills (Zuroff & Fitzpatrick, 1988).

Previous researchers have also identified introversion and low social integration as stable characteristics of depressives (Barnett & Gotlib, 1988). Of the vulnerability factors identified by Brown (Brown & Harris, 1978), the absence of an intimate confiding relationship is the variable which has been most widely replicated as an antecedent to depression (Hirschfeld & Cross, 1983). Moreover, the motivational picture displayed by self-critics resembles the description of the compulsively self-reliant

individual described by Bowlby (1980, 1988), as being distant from others and showing little appreciation for interpersonal relatedness. The lack of interpersonal strivings displayed by self-critics in this study point to an important source of vulnerability, which could become crucial in times of stress, when social support is most needed.

The proposed relations between social involvement and depression are concordant with our finding a negative relation between affiliation and negative affect in women. Similarly in women, affiliation was positively related to positive affect, and this is consistent with previous research linking extraversion to positive affective states (e.g. Diener, 1984; Diener & Emmons, 1985; Larsen & Ketelaar, 1991). These findings again highlight that the absence of affiliation for self-critics may contribute to lower levels of positive affect and higher levels of negative affect. However, the motive categories do not explain why the other female subjects with high Dependency scores also experienced higher levels of negative affect.

Unexpectedly, intimacy positively predicted negative affect in men. As suggested by other authors (Chevron, Quinlan & Blatt, 1978; Smith, O'Keefe, & Jenkins, 1988), a counter-sex role orientation may underlie proneness to negative affect. Thus, being intimacy-oriented at an early age (20 years on average) in a university setting where this

orientation may not be socially-valued, could lead to rejection, frustration of needs, and negative affect. A related possibility is that the transition of leaving home for university, characteristic of several subjects in our sample, is most difficult for those with high needs for intimacy.

We also found that the correlation between positive and negative affect in women was significantly greater than the correlation in men. Over long periods of time, positive and negative affect have been found to be fairly independent; however, Diener and Emmons (1985) report significant correlations between the two during shorter, "high emotion times." Women in our sample have been found to score higher on the Affective Intensity Measure (Mongrain, study 3 in this thesis); thus, the positive correlation between negative and positive affect could be attributed to this intensity component.

We now focus our attention on the striving dimensions related to negative and positive affect. We found that Dependent and Self-Critical women were ambivalent about what they typically try to do, indicating that success for them is linked to certain emotional costs. They also reported that they were less clear than other subjects on the means necessary to achieve their strivings. Finally they reported not being satisfied with their progress in what they try to do. All these striving characteristics were significant

predictors of negative affect, and accounted for 80% of the effect of Dependency and Self-Criticism.

In men, the same striving dimensions were found to be the best predictors of negative affect. The male experimental groups, however, reported different striving characteristics. The mixed group was significantly more ambivalent, and it is possible that being both dependent and self-critical entails greater conflicts about different goals. Dependency was related to lower clarity of means, which indicates a lack of direction with respect to the achievement of strivings. Self-Criticism was related to lower satisfaction with progress, which is consistent with the phenomenology of self-critics, who have previously been found to be more dissatisfied in a variety of domains and life in general (Zuroff & de Lorimier; Zuroff, Koestner, & Powers, 1989). The motivational characteristics accounted for 50% of the effect of personality variables on negative affect in men.

The path diagrams for positive affect indicated that in women, the link between Dependency and lower levels of positive mood is partly attributable to their evaluation of their goals as less important. Thus, dependent women don't consider what they typically try to do as valuable or as important as other subjects. Self-Criticism was negatively related to the other two predictors of positive affect which included environmental opportunities and social desirability

of the strivings. Thus, female self-critics feel that their environment is not conducive to the achievement of their goals, and also that their goals are not socially desirable. These motivational characteristics accounted for 84% of the effect of personality on positive affect.

For men, the connecting links between Self-Criticism and lower positive mood were lower progress and happiness ratings. That is, the self-critics' dissatisfaction with their progress, and their anticipation of less happiness if they do succeed, accounted for 80% of the effect of this personality variable on positive mood.

Overall, the mediational models with striving characteristics were quite successful in explaining the links between personality and lower affective well-being. We also found that the striving dimensions appeared to have some similarity to aspects of cognitive-behavioral theories of depression. For example, Rehm (1977) argued that depressives engage in maladaptive self-evaluation processes. Our vulnerable subjects reported being less satisfied with their progress in their endeavours, which is a negative form of self-evaluation. The ambivalence of some subjects towards what they typically try to do, and their anticipation of less happiness indicates that they do not associate success with valued positive outcomes. This is consistent with Layne's (1980) motivational theory of depression which emphasized depressives' low expectations of positive

outcomes, a theme also elaborated by Lewinsohn (Hoberman & Lewinsohn, 1985). Aspects of helplessness (Abramson, Seligman & Teasdale, 1978) and low self-efficacy (Bandura, 1978) could also be traced to the clarity of means dimension. Dependent men and women, and self-critical women described themselves as having unclear means in the achievement of their strivings, indicating that they do not know how to get what they want. Finally, self-critical women feel they have socially undesirable goals, and perceive fewer environmental opportunities to achieve these goals. This negative view both of themselves and of the world, is an example of the negative biases described by Beck (1983).

Overall, the striving dimensions portray in detailed terms the ways in which motivational characteristics could be linked to lower affective well-being in vulnerable individuals. They are concordant with the aims of cognitive-behavioral treatment which emphasize the establishment of attainable, positive goals, and the administration of self-rewards for positive accomplishments (Hoberman & Lewinsohn, 1985). Finally, the prescription of activities which are aimed at maximizing social involvement, and profiting from social rewards appears particularly relevant in the context of our findings with respect to self-critical individuals.

There were two primary reasons for our focus on motivational variables: we wanted to test 1) whether dependent and self-critical individuals were overly invested

in one type of motive, and 2) whether attributes of their motives could be related to the experience of negative affective states. The overinvestment hypothesis was supported for self-critical women and dependent men, who clearly endorsed either interpersonal or achievement strivings, which in turn were related to negative affect. However, for other subjects, this proposition was not readily applicable. This may be due to an ineffective operationalization of overinvestment, such that the categorization of 15 strivings could have included ones which were considered trivial by our subjects. Perhaps, overinvestment in roles or goals could best be captured by higher-order measures of self-concept, such as one's particular role as a romantic partner or student. Also, according to Linville (1987), self-complexity becomes important only in times of stress, and our design did not allow a proper test of the theory because the interaction between strivings and stress was not assessed.

As operationalized in this study, the content of subjects' strivings had limited implications for affect; however, the attitudes about strivings certainly had an important impact. The results show that individuals' perceptions of what they typically try to do will be strongly related to affect. This lends support to theories of depression emphasizing motivation and expectancies,

rather than those focusing exclusively on biological or environmental variables.

A limitation of the study is that the striving dimension scales were one-item measures, so that the specific characteristics important for affect in this study are tentative, and require replication. Also, our model suggests that motivational variables lead to certain affective states; however, we cannot rule out the possibility that positive or negative mood were the determining agents in the endorsement of certain striving characteristics. A longitudinal design, with the striving assessment scales administered before the collection of mood data, would strengthen our speculations about causality.

Finally, the selection of extreme groups of subjects has allowed us greater statistical power, but it is possible that continuous Dependency and Self-Criticism scores would have produced different results. Further research is clearly needed to delineate the motivational properties that will enhance negative affective experiences, and the groups of individuals for whom these are relevant.

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Footnotes

¹ The effect of Dependency and Self-Criticism on academic performance were investigated to see if differences in achievement motivation has relevance for grade point average. Dependency and Self-Criticism were used as predictors of reports of grade point averages. No group differences were found for academic achievement.

² It is interesting that the groups did not differ in grade point average, so that being less achievement-oriented did not necessarily imply poorer performance in university for dependent individuals.

Ambivalence over Emotional Expression and
Negative Life Events: Mediators of Depression in
Dependent and Self-Critical Individuals

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Running head: MEDIATORS OF DEPRESSION

(under review)

Abstract

We examined life events, emotional intensity, and ambivalence over the expression of emotion as possible mediators to account for the relation between Dependency, Self-Criticism and depressive symptoms (Nietzel & Harris, 1990). Seventy-six women and 74 men were selected for low or high scores on the Dependency and Self-Criticism scales of the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti & Quinlan, 1976). Subjects completed the Affective Intensity Measure (Larsen & Diener, 1987), the Ambivalence Over the Expression of Emotion Questionnaire (King & Emmons, 1990), and the Student Life Event Scale (Levine & Perkins, 1980). Dependency in both men and women was related to a greater number of negative relationship events and ambivalence over the expression of emotion, both of which predicted depression measured by the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Self-Criticism in women was related to a greater number of negative academic events and ambivalence, both of which also predicted depression. Self-Criticism in men was related only to ambivalence, which predicted depression. The mediational models including life events and ambivalence successfully accounted for 74% of the effect of personality on depression for women, and 47% of the effect for men.

Ambivalence Over The Expression of Emotion and
Negative Life Events: Mediators of Depression in
Dependent and Self-Critical Individuals

The focus of the current research is on the possible mechanisms underlying the vulnerability to depression in dependent and self-critical individuals. These personality characteristics, as measured by the Depressive Experiences Questionnaire (DEQ; Blatt et al., 1976), have consistently been related to higher levels of depression both in college and clinical samples. Nietzel and Harris (1990) in a meta-analytic review including 12 studies using the DEQ reported that Dependency had a mean effect size of .29 and Self-Criticism of .49 on standard measures of depression. These figures support the validity of the vulnerability concept and merit further explanation.

We would like to note that similar constructs postulated by different theorists have also been shown to be significantly related to depressive symptoms. For example, based on Beck's (1983) distinction of vulnerable personality predispositions, sociotropy and autonomy have been related to distinct symptoms of depression (Robins & Luten, 1991). Measures of "Need for Approval from Others" and "Performance Evaluation" derived from the Dysfunctional Attitude Scale (Weissman & Beck, 1978) also have been successful in the prediction of depression (Segal, Vella & Shaw, 1989).

The vulnerability of dependent and self-critical personalities is most often examined within the context of stressful life events, the assumption being that Dependency has the most devastating consequences with the occurrence of loss or rejection, while Self-Criticism is most detrimental with the experience of failure. The use of an interactive framework including personality style and categories of life events has provided promising results (e.g., Hammen, Marks, Mayol & deMayo, 1985; Smith, O'Keefe & Jenkins, 1988; Zuroff & Mongrain, 1987). While dependent subjects have consistently been shown to be more susceptible to interpersonal stressors, self-critics often have been found to be vulnerable to a wider variety of life events, including achievement stressors (Nietzel & Harris, 1990). However, some studies, particularly those examining self-critical men, have found no relationship between depression and life events for this group (e.g., Smith et al., 1988).

Our first question was whether the vulnerability of dependents and self-critics operates through the magnification of the impact of particular stressors or through the experience of a greater number of life events. Experimental laboratory manipulations have shown dependents and self-critics to be over-reactive to analogues of rejection and failure (Zuroff and Mongrain, 1987). It has also been suggested that these individuals may create for themselves, through dysfunctional interpersonal styles, a

stressful environment that could exacerbate the already existing vulnerability (Zuroff, 1991). We wanted to test whether depression is best predicted by the interaction of personality with impinging life events, or whether the presence of either or both is sufficient to account for depression.¹ Statistically, the first hypothesis would translate into significant personality by type of life event interactions in the prediction of depression. The second possibility is that personality and life event variables may be correlated with one another, and related to depression through main effects.

A second goal of this study was to examine emotional style variables that may underlie the vulnerability to depression. A yet unexplored facet of these personality dimensions is their emotional profile, including their typical level of affective intensity. Larsen and Diener (1987) introduced the Affective Intensity Measure (AIM; Larsen and Diener, 1987) designed to assess a temperamental component of affective experience which is postulated to have broad implications for psychological and physical well-being. More specifically, this variable describes the intensity of habitual affective experiences in both the negative and positive range.

Blatt (1990) recently drew a parallel between Dependency and the "Dionysian" personality, describing the style as "sensitive to interpersonal issues ... dependent,

emotional...and focused more on feelings than ideas" (Blatt, 1990, p. 307). Self-Criticism was linked to the "Apollonian" style, described as organized, controlled and critical, valuing reason over emotions. Based on these distinctions, we expected Dependency to be related to greater emotional intensity than Self-Criticism. We did not expect self-critics to display lower levels of intensity than controls, as some degree of emotional intensity is necessary for the experience of depression

A second emotional style variable involves ambivalence concerning emotional expression. King and Emmons (1990) have shown that conflict over the expression of emotion is linked to psychological distress and physical complaints. They suggested that lack of emotional expression becomes detrimental when it is coupled with a desire to express, that is, when an emotion is experienced but prevented from following its natural course. The construct is different from the concepts of repression, or alexithymia (Lesser, 1982) in that the individual is aware of the emotion creating the conflict. Pennebaker has shown that "active inhibition" of emotionally charged material is related to higher levels of autonomic arousal (Pennebaker, Hughes & O'Heeron, 1987). On a chronic basis, this process is thought to lead to physical illness (Pennebaker et al., 1987) and negative affective states (King & Emmons, 1990).

The Ambivalence Over the Expression of Emotion

Questionnaire (AEQ; King & Emmons, 1990) was included in our study to evaluate its pertinence for depressive personality styles. Dependency has already been linked to conflict about expressing feelings of hostility (Zuroff, Moskowitz, Wieglus, Powers & Franko, 1983). We expected that expression of anger may be problematic for these individuals because it may create a strain on their affectional bonds which dependent individuals feel are essential for survival. Similarly self-critics may be ambivalent over the expression of negative emotions because it may threaten the approval they seek from their environment. Expression of positive emotions may also create internal conflict for them because showing love or expressing tender behaviours may entail fears of appearing weak or vulnerable.

In summary, the primary purpose of the present study was to investigate possible reasons why Dependency and Self-Criticism are related to depressive symptoms. We were interested in the types of life events occurring to these individuals, their habitual levels of emotional intensity, and their ambivalence with respect to emotional expression. In order to test these ideas, college students were recruited according to their scores on the Dependency and Self-Criticism scales of the DEQ (Blatt et al., 1976). They were administered measures of depression, ambivalence, emotional intensity and life events.

Guiding Hypotheses:

1. We expected Dependency and Self-Criticism in both male and female college students to be related to higher levels of depression, assessed with a standard scale (CES-D; Radloff, 1977), with Self-Criticism being the stronger predictor.

2. We were interested in testing whether the personality variables would interact with specific types of life events (relationship vs. academic) in the prediction of depression. The alternative hypothesis was that personality and stress provide additive effects in the prediction of depression.

3. We expected Dependency to be related to higher levels of affective intensity than Self-Criticism. Both Dependency and Self-Criticism were expected to be associated with greater ambivalence over the expression of emotion.

4. We hypothesized that the life event and emotional style variables would predict depression and thereby help explain links between personality and depression. Thus, we planned to evaluate path models in which life event and emotional style variables would serve as mediators between Dependency, Self-Criticism and depressive symptoms.

Method

Subjects

The subjects were selected according to their scores on the Dependency and Self-Criticism scales of the Depressive

Experiences Questionnaire (DEQ). Dependency and Self-Criticism scores were derived from the scoring coefficients reported in the Blatt et al. (1976) female sample.

DEQs were distributed in February 1990 to large undergraduate classes in both the Arts and Science faculties at McGill University. Questionnaires were completed at home and returned by 591 women and 310 men. Four groups of men and women (dependent, self-critical, mixed and control) were selected for the study. For the female sample, dependent subjects scored in the upper 25% of the Dependency scale, while scoring in the lower 25% of the Self-Criticism scales; self-critical subjects scored in the upper 25% on Self-Criticism and the lower 25% of the Dependency scale; the mixed group scored in the upper 25% of both scales; and the control group scored in the lower 25% of both scales. The male subjects were selected in the same fashion, but a 30% cut-off point on the Dependency and Self-Criticism scales was employed to obtain adequate group sizes. The final sample was comprised of 76 women (19 dependent, 19 self-critical, 19 mixed, 19 control) and 74 men (20 dependent, 17 self-critical, 18 mixed, 19 control). The means for each group on the DEQ factors are indicated in Table 1.

Insert Table 1 about here

Table 1

Means on the DEQ Factors in the Eight Experimental Groups

	Dependency	Self-Criticism	Depression
<u>Dependent Group:</u>			
Women (N=18)	.45	-1.56	14.4
Men (N=20)	.25	- .98	10.4
<u>Self-Critical Group:</u>			
Women (N=19)	-1.69	1.30	21.6
Men (N=17)	-2.06	1.31	15.9
<u>Mixed Group:</u>			
Women (N=19)	.67	1.48	29.7
Men (N=19)	.58	1.28	22.6
<u>Control Group:</u>			
Women (N=19)	-1.67	-1.76	4.4
Men (N=18)	-2.13	-1.01	7.1

Note. CES-D= Center for Epidemiological Studies Depression Scale. Scores below 16 indicate that the respondent is "not depressed"; scores from 16 to 20 indicate "mild depression"; scores from 21 to 30 indicate "moderate depression" and those of 31 and greater refer to "severe depression" (Barnes and Prosen, 1985).

Procedure

This study was part of the project described in the second article of this thesis. Subjects were contacted by phone four to eight weeks after they returned the DEQ and were asked to participate in a study on mood and goals. Subjects were tested in small groups of three to eight. The constructs to be discussed in the current report were assessed in the following order: emotional intensity, ambivalence over the expression of emotion, depression, and recent life events. Subjects were paid \$20.00 for their participation in the entire project.

Dependent Measure

The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) is a 20-item measure used to assess current depressive symptoms in the general population. It taps various aspects of depression, but emphasises the affective component (Gotlib & Cane, 1990). Subjects rate each item on a four-point scale indicating the degree to which they experienced the symptom in the previous week.

The scale has good internal consistency with reported alphas of .84 for the general population, and split-half reliability coefficients ranging from .77 to .92 (Corcoran & Fisher, 1987). The scale also has good convergent validity and sensitivity (Gotlib & Cane, 1990).

Predictor Variables

1. Depressive Experiences Questionnaire. The DEQ includes 66 Likert items that tap a broad range of feelings about the self and others, but do not assess the primary symptoms of clinical depression (Blatt et al., 1976). The Dependency and Self-Criticism scales of the DEQ have been shown to entail vulnerability to anaclitic and introjective depression (Zuroff & Mongrain, 1987) and are related to thematically relevant dysfunctional attitudes (Mongrain & Zuroff, 1989). Both scales show good convergent and discriminant validity (Blaney & Kutcher, 1991) and have been shown to be stable over a one-year period in a college sample (Zuroff, Igreja, and Mongrain, 1990).

2. Affect Intensity Measure. The AIM (Larsen & Diener, 1987) is a 40-item questionnaire designed to assess individual differences in intensity of both positive and negative affective experiences. It has demonstrated good construct validity evidence, and high test-retest reliabilities even over a 2-year span (Larsen & Diener, 1987).

3. Ambivalence Over the Expression of Emotion Questionnaire. The AEQ (King & Emmons, 1990) is comprised of 29 items assessing ambivalence over the expression of negative and positive emotion. It has good internal consistency and convergent validity (King

& Emmons, 1990). Its correlations with other inhibition measures suggests that it measures conflict over emotion resulting in inhibition and rumination over emotional expression (King, Emmons, & Woodley, in press).

4. College Student Life Event Scale. The 102 events in the CSLES (Levine & Perkins, 1980) represent 14 aspects of college students' lives including social and academic life, living arrangements, finances, drugs, religious activities, political activities, sexual activities, family, friends, male-female relationships, employment, legal problems, accidents, and extra-curricular activities. For each item, subjects indicate whether the event in question happened to them in the last two weeks and rate the impact of the event (-3 = extremely negative, +3 = extremely positive).

This scale was chosen because it is specifically designed to tap the types of events occurring to college students. Both negative and positive life events are sampled. Linville (1987) compared different time spans with the use of this scale and reported that the number of life events occurring in the previous two weeks was the best predictor of depression in a college sample. For this reason, and to reduce memory biases, we sampled the events occurring in the previous two weeks.

Our preliminary analyses also indicated that the number of negative events was as good a predictor of outcome as was appraisal of events. In order to keep the stress index as objective as possible, we retained the number of negative events as our predictor. We also examined the number of negative events within the academic and romantic relationship categories as these were theoretically pertinent for our groups of subjects.

Results

The results will be presented in the following sequence: first, we report the effects of Dependency and Self-Criticism on depression. The results are presented for each sex separately because different selection criteria were used to obtain the samples. The data analytic strategy involved hierarchical multiple regression (Cohen & Cohen, 1983). High or low scores on Dependency and Self-Criticism were contrast-coded as +1 or -1, and their interaction represented by the product of the contrast coded vectors. The effect of each personality style was assessed by calculating the increments in variance when either was entered as the second predictor, after the other DEQ variable and before the interaction term.

We then consider a set of possible mediating variables to account for the associations between

personality and depression. First, we report hierarchical multiple regressions examining the relations between personality styles and the mediators. Second, we report the effects of each potential mediator on depression. In the second set of analyses, each mediating variable was entered last in the regression equation, controlling for the effects of the other mediators. These results will be combined and summarized in path diagrams which will illustrate the significant links between personality styles, mediators, and depression. The path coefficients are the standardized regression weights (Loehlin, 1987). The last set of regression analyses tested whether each personality style contributes additional variance over and beyond the effects of the mediators.

Effects of Dependency and Self-Criticism on Depression

For women, both Dependency, $F(1,72) = 16.36$, $p < .001$, and Self-Criticism, $F(1,72) = 52.20$, $p < .001$, were related to higher levels of depression. According to the accepted criteria on the CES-D (Barnes & Prosen, 1985), the self-critical and the mixed group reported clinical levels of depression falling within the moderate range. The other two groups had scores below 16 and fall within the non-depressed range (see Table 1).

For men, Dependency, $F(1,70) = 6.72, p < .05$, and Self-Criticism, $F(1,70) = 29.46, p < .001$, were related to higher levels of depression.² As was found for women, the self-critical and mixed groups scored within the clinical range. Table 2 indicates that Self-Criticism accounted for greater percentages of variance in depression than does Dependency, in both men and women, confirming our hypotheses.

Insert Table 2 about here

Effects of Dependency and Self-Criticism on Mediators

Table 2 indicates the percentage of variance accounted for by Dependency and Self-Criticism for each mediating variable. The means on each measure are shown in Table 3.

Life Events. For women, Self-Criticism was related to a greater total number of negative events, $F(1,72) = 27.70, p < .001$. Within target categories of events, Self-Criticism was associated with a significantly greater number of negative academic events, $F(1,72) = 18.14, p < .001$. Dependency was related to a significantly greater number of negative romantic relationship events, $F(1,72) = 4.87, p < .05$.

Table 2

Percent Variance in Mediator Variables Accounted for by
Dependency and Self-Criticism

	Women	Men
Depression		
Dependency	12% ***	6% *
Self-Criticism	37% ***	28% ***
Negative Life Events		
Dependency	3% a	8% *
Self-Criticism	27% ***	n.s.
Academic Events		
Dependency	n.s.	8% *
Self-Criticism	20% ***	n.s.
Relationship Events		
Dependency	6% *	5% a
Self-Criticism	n.s.	n.s.

(Table continues)

	Women	Men
<hr/>		
Affective Intensity Measure		
Dependency	17% ***	22% ***
Self-Criticism	n.s.	n.s.
<hr/>		
Ambivalence Over the Expression of Emotion		
Dependency	19% ***	16% ***
Self-Criticism	29% ***	14% ***

Note. a $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

For men, Dependency was related to a significantly greater total number of negative life events, $F(1,70) = 9.76, p < .01$. Dependency was also related to a greater number of academic events, $F(1,70) = 6.33, p < .05$, and romantic relationship events, $F(1,70) = 3.49, p = .06$. Our prediction that Dependency and Self-Criticism would be related to a greater number of life events were confirmed, with the exception of Self-Criticism in men.

Emotional Intensity. Dependency in women was related to greater levels of emotional intensity, $F(1,72) = 14.99, p < .001$. In men as well, Dependency was related to greater emotional intensity, $F(1,70) = 21.98, p < .001$. For men, the interaction with Self-Criticism was also significant, $F(1,70) = 4.36, p < .05$. Orthogonal contrasts revealed that the dependent and mixed groups were more intense than the self-critical and control groups, $F(1,70) = 5.07, p < .05$. The self-critical group was also higher on intensity than the control group, $F(1,70) = 24.12, p < .001$. Our predictions that Dependency in men and women would be related to greater emotional intensity was thus supported.

Ambivalence Over the Expression of Emotion. As predicted, Dependency, $F(1,72) = 26.95, p < .001$, and Self-Criticism, $F(1,72) = 40.64, p < .001$ in women were related to greater levels of ambivalence over the expression of emotion. Also as predicted, in men, both Dependency, $F(1,70) = 15.96, p < .001$, and Self-Criticism, $F(1,70) = 14.23,$

$p < .001$ were related to greater ambivalence over emotional expression. Means are indicated in Table 3.

Insert Table 3 about here

In summary, Dependency in both men and women predicted greater levels of emotional intensity, ambivalence over the expression of emotion, and number of negative romantic relationship events. Self-Criticism in both men and women was related to ambivalence and, in women, predicted a greater number of academic stressors.

Before reporting the main effects of the mediators on depression, we will address the alternative model of vulnerability, in which the interaction of personality with life events predicts depression. We tested this hypothesis by regressing depression on Dependency, Self-Criticism, Relationship and Academic Events, and the product terms representing interactions of personality and life events. No interaction between personality and life events significantly predicted depression. Thus, no evidence was found to support the hypothesis that the link between personality styles and depression is attributable to over-reactivity to negative life events.

Table 3

Means and Standards Deviations on the Predictor Variables
for the Experimental Groups

	Women		Men	
	<u>Means</u>	<u>SD</u>	<u>Means</u>	<u>SD</u>
Total Number of Negative Life Events				
Control	3.4	2.8	4.6	2.5
Dependent	6.0	4.3	7.3	4.2
Self-Critical	9.1	4.8	6.2	3.1
Mixed	10.0	3.7	8.7	4.0
Academic Events				
Control	1.6	1.3	1.5	1.1
Dependent	1.8	1.4	2.3	1.3
Self-Critical	2.6	1.4	1.8	1.2
Mixed	3.2	1.0	2.4	1.4

(Table continues)

	Women		Men	
	<u>Means</u>	<u>SD</u>	<u>Means</u>	<u>SD</u>
Relationship Events				
Control	.5	.8	.6	1.0
Dependent	1.3	1.8	1.2	1.3
Self-Critical	1.0	1.2	.6	.9
Mixed	1.5	1.1	1.0	1.2
Affective Intensity Measure				
Control	3.49	.48	3.00	.57
Dependent	4.13	.46	3.93	.54
Self-Critical	3.81	.55	3.51	.62
Mixed	4.10	.59	3.87	.61
Ambivalence Over the Expression of Emotion				
Control	2.09	.53	2.42	.51
Dependent	2.72	.66	3.03	.55
Self-Critical	2.87	.63	3.06	.62
Mixed	3.61	.44	3.49	.70

Note. SD= Standard Deviation. N for each group of women is 19. N for men are: control= 19, dependent= 20, self-critical= 17, mixed= 18.

Effects of Mediators on Outcome Variables

In our next analyses we examined a main effects model in which depression was regressed on the number of academic and romantic relationship events and on the ambivalence and affective intensity measures. Preliminary analyses showed that the interactions between events and the ambivalence and intensity variables were not significant. The unique variance accounted for by each predictor will be reported.

For women, relationship, $F(1,71) = 6.46, p < .05$, and academic stressors, $F(1,71) = 4.23, p < .05$, positively predicted depression over and above the effects of ambivalence and intensity of affect. Ambivalence, $F(1,71) = 19.46, p < .001$, made the largest unique contribution to the prediction of depression.

For men, ambivalence, $F(1,69) = 12.30, p < .001$, and relationship events, $F(1,69) = 5.98, p < .05$, predicted depression, over and above the effects of the other mediators.

Thus, as predicted, the life event and ambivalence measures significantly predicted depression, justifying their inclusion as mediating variables. However, the affective intensity measure did not predict depression. The percentage of variance in depression accounted for by each mediator is represented in Table 4.

Include Table 4 about here

Path Diagrams for Men and Women

Path diagrams in Figure 1 illustrate the significant relations obtained from the regression analyses between personality, the mediators and depression. Only the effects providing connecting links from personality to outcome are portrayed. (For example, although the link between Dependency and Intensity of Affect is significant, it is not portrayed in the diagram because intensity does not lead to depression.)

The first halves of the path diagrams indicate the significant relations between each personality dimension and the mediator variables after controlling for the effect of the other personality dimension. The second half of the diagram depicts the significant relations between mediators and depression, after controlling for the effects of the other three mediating variables. Thus, only unique contributions are reported.

Include Figure 1 about here

Table 4

Percentage in Variance Accounted for by the Mediators on
Levels of Depression

	Women	Men
Academic Events	3% *	n.s.
Relationship Events	5% *	6% *
Ambivalence	14% ***	12% ***
Affect Intensity	n.s.	n.s.

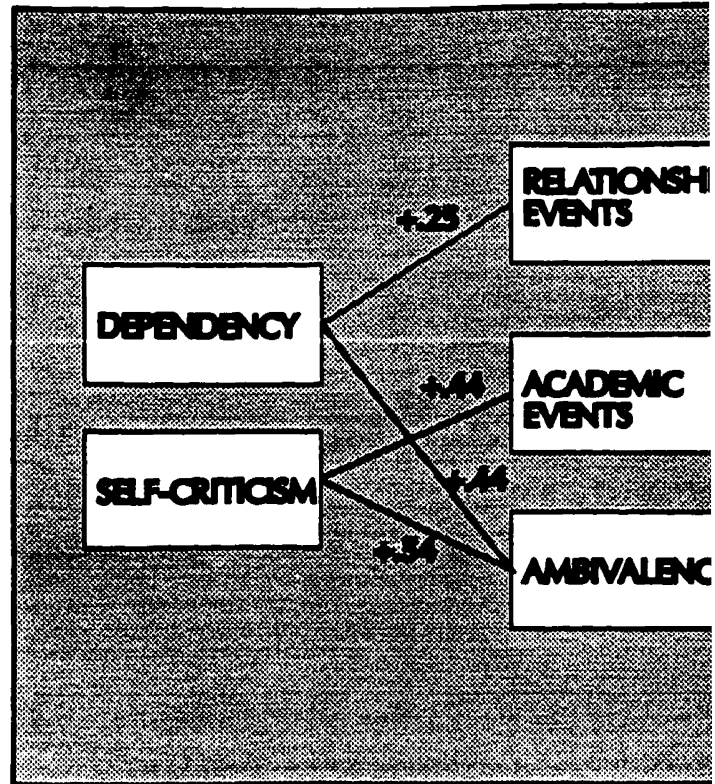
Note. a $p < .1$, * $p = .05$, ** $p < .01$, *** $p < .001$.

Figure Caption

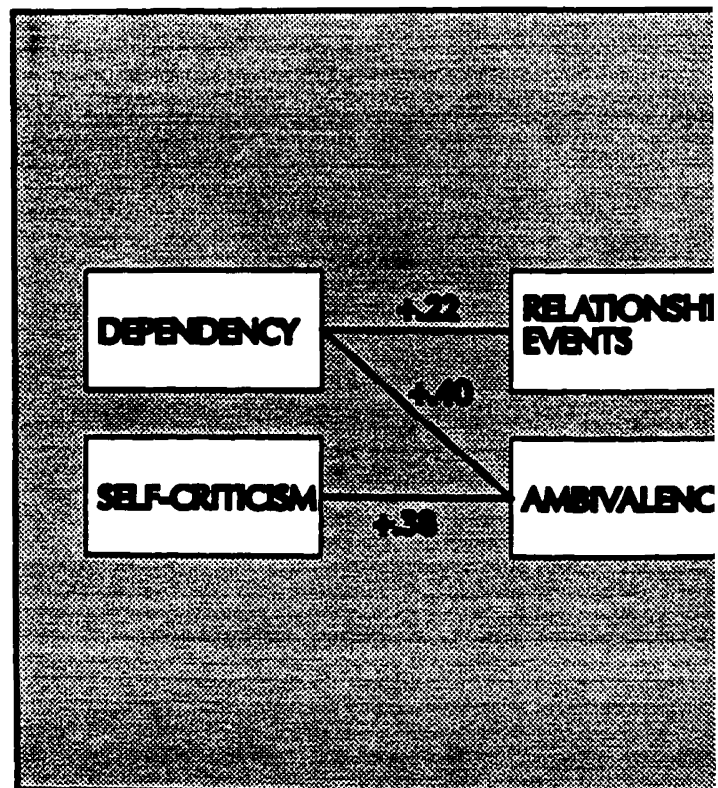
Figure 1. Path diagrams indicating mediating links between Dependency, Self-Criticism and depression in men and women. The mediators include Academic, Relationship Events and Ambivalence over the Expression of Emotion. The paths show unique relations between variables, and the coefficients represent standardized regression weights.

FIGURE 1

WOMEN (N=)



MEN (N=)



Strong statements concerning causality cannot be made from our correlational design. However, the path model is consistent with the suggestion that for women, the relation between Dependency and depression is partially explained by dependent women's experience of a greater number of negative romantic stressors and their ambivalence over the expression of their emotions. The path from Self-Criticism to depression is mediated by academic stressors and ambivalence. Thus, the model suggests that part of the reason Self-Critical women become depressed is that they experience negative events related to school and are also ambivalent about expressing their feelings.

For men, the path model is consistent with the suggestion that the relation between Dependency and depression is partially explained by the occurrence of negative relationship events and ambivalence over the expression of emotion. The same pattern was obtained for women, and our data suggest that Dependency operates in the same way for both sexes. According to our model, the only link between Self-Criticism and depression for men is through the ambivalence variable. Therefore, a sex difference was that Self-Criticism predicted the number of negative life events for women, but not for men.

Regressions Entering the DEQ Variables after the Mediators

To examine the effectiveness of the mediational model, we calculated the percentage of the variance in depression

that was predicted by Dependency and Self-Criticism that was accounted for by the mediators. For women, 74% of the variance in depression predicted by Dependency and Self-Criticism was accounted for by relationship events, academic events, and ambivalence. For men, 47% of the effect of personality on depression was accounted for by the mediational model including relationship events and ambivalence.

The next set of multiple regressions included the DEQ factors after the mediating variables in the prediction of depression in order to determine whether Dependency and Self-Criticism had significant effects on depression above and beyond the effect of the mediators.

For women, Self-Criticism contributed significantly to depression $F(1,70) = 18.17, p < .001$, after controlling the effects of ambivalence, and academic and relationship life events. The effect for Dependency was also significant $F(1,70) = 4.00, p < .05$. While Self-Criticism accounted for an additional 11% of the variance in depression after the effects of the mediators, Dependency accounted only for an additional 2%.

For men, Self-Criticism predicted 17% of the variance in depression $F(1,69) = 23.13, p < .001$, after controlling the effects of relationship events, and ambivalence. The effect of Dependency after the mediators was not significant. Thus, our model proved to be more successful in

explaining the link between Dependency and depression than it was for Self-Criticism.

Discussion

Dependency and Self-Criticism in both men and women were related to significantly higher levels of depression. Most studies have looked at the DEQ in female college samples, so our results with male subjects extend previous work. Consistent with past research, the effect of Self-Criticism on depression was stronger than that of Dependency. It should be noted that Dependency and Self-Criticism were assessed at least one month prior to depression.

The link between negative life events and depression is now well documented (Billings & Moos, 1985). Our study suggests that certain individuals may experience symptoms of depression because they experience a greater number of events, as opposed to being over-reactive to those events. In our study, dependent women experienced a greater number of relationship stressors, and were significantly more depressed. Likewise, self-critical women reported a greater number of academic events, and were significantly more depressed. For men, only Dependency was related to greater interpersonal and achievement stressors. The link between Self-Criticism and depression in men appears to be fairly independent of life stress, at least as operationalized in this study. Similar results were obtained by Smith et al.

(1988) who found that depression in self-critical males appeared to be unmodified by the presence of life events. Blaney and Kutcher (1990) also failed to obtain predicted relations between failure and depression in self-critical males. We will return to this problem in a later section; next, we turn our attention to the findings obtained for women and dependent men.

We would like to address the nature of the associations between personality and perceived life events. It is unlikely that our subjects were passive recipients of particular types of stressors. As described by Buss (1987), persons actively enter some social situations and avoid others. They also create certain situations by "evoking" responses and "manipulating" their social environment. Results consistent with these propositions have recently been reported by Emmons (1991) who found that motive dispositions were related to the occurrence of corresponding types of life events. Similarly, Headey and Wearing (1989) in a six-year longitudinal design found that personality traits such as neuroticism predisposed individuals to experience adverse life events over time.

We agree with the conclusion that "events and personalities are not totally independent" (Emmons, 1991), and that certain events may predictably occur more frequently to certain people. For example, dependent men and women, because of their neediness and insecurity, may create

tension in their existing relationships. They may also be more exposed to interpersonal stresses because they are involved in a variety of social contacts (Mongrain, second article of this thesis). A self-critical student who has set for himself/herself unreasonably high standards will probably encounter at some point a failure to meet these expectations. Life events that are partially the product of the individual's personality could then influence mood, and feed into negative expectations. This interactive loop is concordant with Andrews (1989) "Self-Confirmation" model of depression and also with Safran's (1990) concept of a "cognitive-interpersonal cycle."

Reports of correlations between depression and stress measures are open to the criticism that mood introduces a negative bias in the report of events. We cannot rule out the possibility that our subjects endorsed a greater number of particular life events because they were depressed. However, we reported effects for each category of events that statistically controlled for the other category, as well as the affect intensity and ambivalence variables. A negative response bias attributable to mood would lead to shared variance in the predictors, and our analyses controlled for such shared variance. Also, Headey and Wearing (1989) reported that the pattern of relationships between personality and life events was unchanged when events were divided into objective and subjective types.

Our failure to obtain interaction effects between personality and life events could stem from the short time frame (two weeks) for the assessment of stress. It is quite possible that dependent and self-critical individuals are not generally over-reactive, but over-react to a small number of events which are highly congruent with their cognitive-affective structures. In laboratory studies, the "ideal" stressor for each vulnerable type can be manipulated and tested. It was on the basis of such results (Zuroff & Mongrain, 1987; Blaney & Kutcher, 1990) that we predicted interaction effects, but these may not occur naturally on a frequent basis.

The mediating variable that proved to be important in the prediction of depression was ambivalence over the expression of emotion. Very similar results were reported by King and Emmons (1990) who also showed that the AEQ remained significantly correlated with the Beck depression scale after controlling for the effect of neuroticism, thus providing some discriminant validity for the scale.

The question that naturally arises is: Why does ambivalence have such a robust link to depression? The inhibition of emotional expression has been linked to obsessive thoughts and ruminations (King, Emmons, & Woodley, in press). The ruminative component may resemble what has been described as self-focused attention (Pyszczynski & Greenberg, 1986) and may entail negative self-evaluations

("I'm a bad person for feeling angry"), internal attributions ("it's my fault if I feel angry) and an increased focus on bodily changes all of which will accentuate negative affect. The ramifications of inhibited affect also have been discussed from a therapeutic point of view (Safran & Greenberg, 1990). The interruption of emotional experience, including the expression of emotion, is believed to be related to depressive symptomatology in part because adaptive responses towards the environment are prevented (Safran & Greenberg, 1990). For example, an individual might inhibit expressing anger because of feared consequences (rejection, retaliation), but the failure to express the anger would also preclude bringing about beneficial changes in the environment. Similarly, expression of sadness or vulnerability may restore vital sources of social support as opposed to leading to denigration.

Affective intensity did not predict depression, a finding also reported in a review by Larsen and Diener, (1987). They noted that affect intensity heightens the complete range of emotional responses, including the experience of intense joy. This suggests that the construct may not be related to depression because depression is characterized by an absence of positive affect (Watson & Kendall, 1990). The emotional profile of dependent individuals implies strong affective experiences in the positive and negative domain, such that overall, they may

have the potential to experience greater "happiness" than others, at the expense of bouts of depression. This interpretation is concordant with a recent report on gender differences in affective intensity and the implications for happiness and depression (Fujita, Diener, & Sandvik, 1991).

We have described possible mediating links between Dependency, Self-Criticism, and depression which successfully explained substantial portions of the effects of personality on depression. Overall, our model was superior in the prediction of depression in dependent and self-critical women than in dependent men and, most notably, self-critical men. A sex difference worth noting was that self-critical women reported a greater total number of negative life events, while it was the dependent men who reported a greater number of negative events. Smith et al. (1988) obtained similar findings and concluded that a counter-sex role orientation, (Self-Criticism in women, and Dependency in men) led to greater negative social consequences. Our own results render this interpretation a continuing possibility.

A second sex difference was that self-critical men did not report a greater number of stressful life events. This result is not an isolated finding, (e.g., Smith et al., 1988), and our preferred interpretation is that depression for this group could stem largely from internal factors. Possible candidates involve the processes described in the

theory of "self-focused attention" (Pyszczynski & Greenberg, 1986). Interestingly, Beck (1983) has noted that patients with problems of autonomy tended to be unreactive to environmental stimuli, and some recent evidence suggests an association between autonomy and endogeneous depression (Peselow, Robins, Block, & Fieve, 1990; Robins & Luten, 1991).

The greatest limitation of the study is its cross-sectional design with respect to the assessment of life events, emotional style variables, and depression. Although the path analyses were concordant with causal models, they do not provide direct evidence of causality. Also, while the path models successfully accounted for a major portion of the effects of personality on depression, the effect for Self-Criticism in both men and women was not completely explained. This suggests that other factors will need to be considered to fully understand why Self-Criticism is linked to depression.

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Footnotes

¹ We use the term depression throughout the text to refer to levels on the CES-D depression measure. We are therefore referring to depressive symptoms (e.g. dysphoria, feelings of hopelessness and worthlessness, sleep disturbances, concentration problems) rather than to diagnosed, major affective disorders.

² Dependency did not have a significant effect on depression in the first article of the thesis. The inconsistency with the results of the current study may be due to differences in the sensitivities of the BDI and the CES-D for the assessment of depression. Another factor is that the criteria for group selection were different. The subjects in the first study scored in the upper and lower 35 percent of the Dependency scale while those in the current study scored in the upper and lower 25 percent.

Integration and Future Directions

The three chapters of this thesis have examined different components of the vulnerability to negative affect present in dependent and self-critical individuals. In this section, the components will be conceptualized as a sequence of interlocking cognitive-motivational-emotional events leading to the experience of depression. The findings from the three articles will be integrated in a model beginning with the personality dimensions. The striving categories and dysfunctional attitudes are both represented as integral but independent parts of personality. Personality is then linked to the motivational deficits operationalized as striving characteristics. These characteristics are depicted as the triggers to negative and positive affect. Stressors are also included as contributing factors to negative affect. Ambivalence over emotional expression combined with the experience of negative affective states will be presented as the final precursor to depression. The data were collected with college students, and depression was assessed with a self-report measure. Therefore, no claims can be made with respect to the clinical entity of depression. Throughout this discussion, the term depression will be used to refer to depressive symptoms and not necessarily to a major affective disorder.

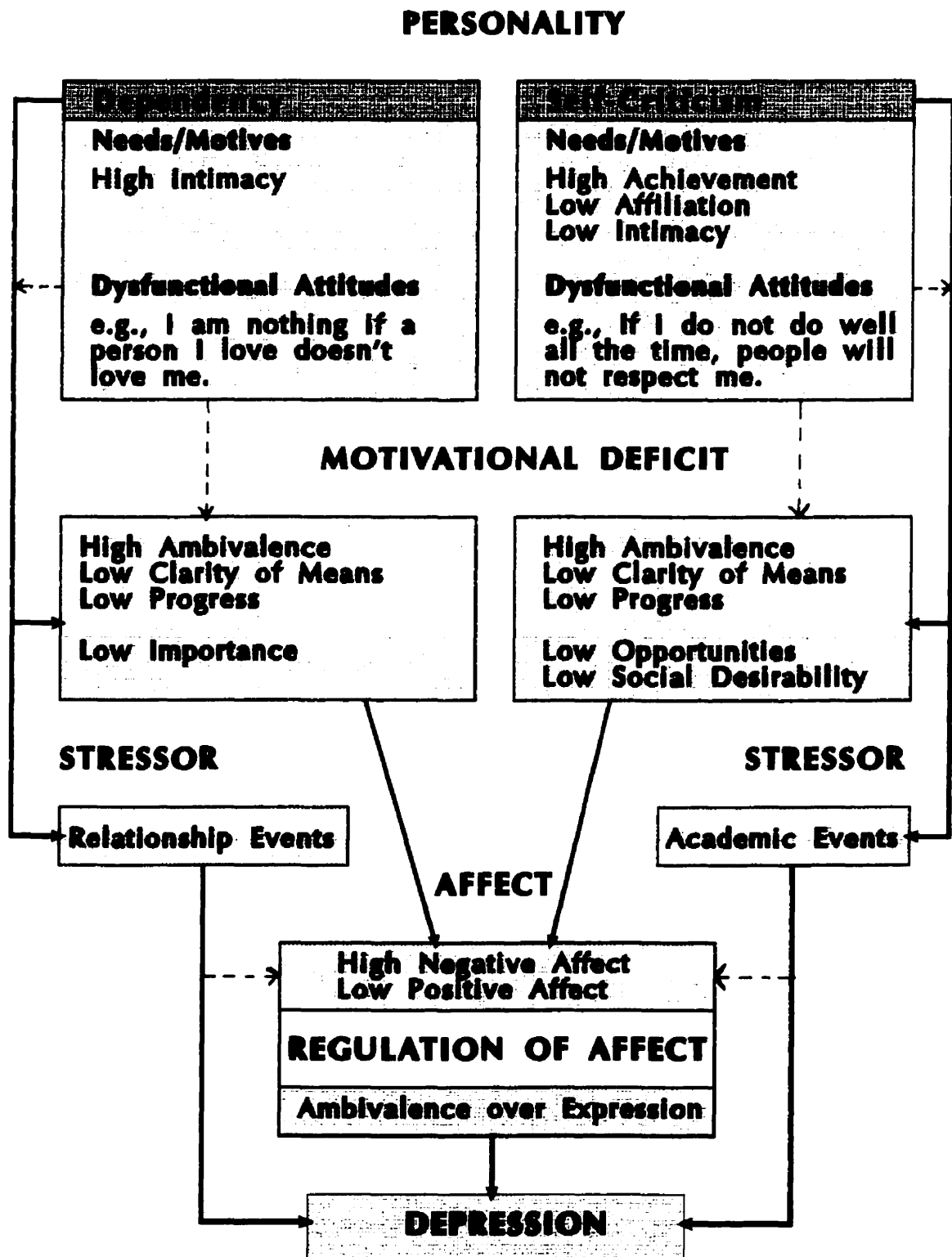
The model portrayed in Figure 1 includes a series of stages comprised in two pathways linking personality to

depression. One involves the mediational role of dysfunctional attitudes and negative life events for the onset of depressive symptoms. The other pathway includes motivational deficits, and ambivalence over the expression of emotion as mediators to depression. Most of the relationships proposed are substantiated by empirical results. Those that are speculative are indicated by broken arrows. Specific examples will first be provided from the results obtained for women since data was obtained from them in all three articles. The convergences and inconsistencies of the model with the existing male data will be discussed in a separate section.

Include Figure 1 about here

As shown in Figure 1, the striving categories reported by vulnerable women, and their depressogenic attitudes are presented as integral components of personality. The striving categories have previously been related to latent motive dispositions (Emmons & McAdams, 1989) and, accordingly, in the current model are described as needs. These are separate from the depressogenic attitudes which can be viewed as components of the self-schema (Kuiper & Olinger, 1986). As the results show, needs and dysfunctional attitudes are thematically related. For example, dependency in women was related to personal strivings reflecting needs

Figure 1.
Path from Dependency and Self-Criticism to Depression



for intimacy, which is consistent with the anaclitic dysfunctional attitudes also endorsed by them (Mongrain & Zuroff, 1989). That is, attitudes such as "I am nothing if a person I love doesn't love me," appear related to strivings that will maximize intimacy. Similarly, self-critics were found to maximize achievement strivings (for the high self-criticism/ low dependency women) which is consistent with introjective attitudes such as: "if I do not do well all the time people will not respect me."

The anaclitic and introjective dysfunctional attitudes are purported to be fairly enduring cognitive structures that can give rise to depression given impinging stressors (e.g., loss or failure) (Olinger, Kuiper, & Shaw, 1989; Zuroff, Igeja, & Mongrain, 1990). Accordingly, in the current model, personality is linked to depression through dysfunctional attitudes and the occurrence of concordant life events. Dysfunctional attitudes are linked by broken arrows to the personality-stressor pathway since there is no direct evidence linking attitudes to life events. However, each personality style was found to be related to the occurrence of concordant types of life events (see the third article), and anaclitic and introjective attitudes were also found to be related to the appraisal of these events as more stressful. Therefore, one pathway between personality and depression is determined by the presence of dysfunctional attitudes and impinging stressors. A similar mechanism for

depression was proposed by Kuiper and Olinger (1986).

Dysfunctional attitudes are also hypothetically linked to motivational deficits. They could entail a more general cognitive bias (Beck, Rush, Shaw, & Emery, 1979) that could give rise to negative evaluations of one's goals. Andrews (1989) hypothesized a similar link between a negative self-schema and motivational deficits.

The second pathway from personality to depression is through motivational deficits, and ambivalence over emotional expression. The second article showed that vulnerable individuals' perceptions of their strivings, such as their progress, the means, and the environmental opportunities available to them, were important contributors to negative and positive affect. Dependent and self-critical subjects were found to endorse the motivational characteristics predictive of greater negative affect, and lower positive affect. Examples of these striving characteristics obtained for women are presented in the model as the antecedents to negative and positive affect.

Once certain affective states are experienced, the regulation of affect could prove to be a determining factor between transitory moods and more pervasive, depressive affect (Safran & Greenberg, 1990). The third article showed that ambivalence over emotional expression was a significant predictor of depression, and was particularly prominent in dependent and self-critical individuals. Possible

interpretations for this link were proposed, such as increases in rumination, increases in self-awareness, intensification of affect and maladaptive responses to the environment. These mechanisms could all contribute to decreases in self-esteem and the experience of a more global, longer-lasting depressive affect. Ambivalence is portrayed after the striving characteristics in Figure 1, as it becomes influential once emotions are aroused. Ambivalence is thus the final contributor to depression.

Male subjects were included in the second and third study only, so that the negative self-schema described for women can only be hypothesized for men. The needs/motives reported by dependent men were consistent with those reported by dependent women. However, an over-investment in interpersonal goals was more evident for dependent male subjects. They reported a greater number of intimacy and affiliative motives, but fewer achievement strivings. Self-criticism in men, as for women, was related to a lack of intimacy motivation. The types of motivational deficits predictive of negative affect were basically the same for both sexes. There were sex differences in the striving characteristics predictive of positive affect, and in the relations between the personality variables and the specific characteristics. Dependency and self-criticism in men were related to distinct striving characteristics, while for women both personality styles were linked to the same

dimensions (see the path diagrams in the second article). With respect to the types of stressors endorsed by each personality style, dependency in men, as for women, was related to a greater number of relationship events. A major sex difference was that self-critical men did not report a preponderance of negative life events of any sort. This is different from self-criticism in women, which was linked to a larger number of negative life events, and more specifically to greater academic stress. Possible explanations for this finding were discussed in the third article. The last step to depression involves the combination of greater negative affective states and lower positive states with ambivalence over the expression of emotion. This pathway is applicable to self-critical men. Dependent men however, did not report lower levels of positive affect, such that for them, the vulnerability factors depicted in the model may not be specifically related to depression (Watson & Kendall, 1990). An additional framework for men is not depicted here since there are no data for them on dysfunctional cognitions. Very few studies with the DEQ have studied male subjects, and additional data would be needed to substantiate our results.

The current model acknowledges the influence of negative life events on levels of depression, but since it has been widely recognized in the depression literature (Billings & Moos, 1985), it will be accorded greater

attention here. During the six months preceding the onset of symptoms, depressives have been found to experience 3-4 as many negative life events as population controls (Akiskal, 1979). Separation events have been found to figure prominently among the precipitating factors, but they are not sufficient causes of depression since only 10% of those who experience a significant loss will become depressed (Paykel, 1982). This justifies looking at individual differences in the appraisal of stress and the meaning that various events will have in terms of one's self-esteem and well-being.

In the first article, Dependency was related to greater perceived stress for interpersonal events, while Self-Criticism was related to greater negative appraisals for achievement-related events. Only hypothetical events were presented to subjects in the first study. When actual events were subsequently investigated (see the third article of this thesis), it was found that dependency was related to the experience of relationship events and self-criticism to academic events. Therefore, dependent and self-critical people appraise certain events as more stressful and also report experiencing these types of events (i.e., relationship or academic) in their own lives, which may be an important contributor to depression.

An interesting proposal emerging from these findings was that personality and environmental circumstances may not

be completely independent. There is growing evidence that some life events are more likely to occur to certain individuals (e.g., Emmons, 1991; Headey & Wearing, 1989). However, research has not yet clearly delineated the ways in which vulnerable individuals could be instrumental in creating certain events. One possibility extracted from the current research is that certain motives could lead to behaviours which would evoke particular reactions from others. Thus, a dependent individual with needs for intimacy will strive to obtain close, nurturing relationships. However, if the underlying attitude is that "being isolated from others is bound to lead to unhappiness," then the motives may translate into an insistent clinginess to others, which may ultimately elicit negative reactions (Coyne, 1976). Similarly, self-critics who strive to achieve excellence may be faced with failures or disappointments triggered by their own inappropriate standards (for example, an introjective attitude is: "If I fail partly at my work, then I am a failure as a person"). The inability to attain these perfectionistic standards may have important implications for their self-esteem. An additional significant characteristic of female self-critics is that they are not affiliative or intimacy-oriented, so that they probably do not profit as much from social support, or the positive reinforcements available in social interactions (Hoberman & Lewinsohn, 1985). Thus, disappointments in the

achievement domain may leave them without alternate sources of self-esteem and gratification.

Although personality may play an instrumental role in creating environmental conditions that are more or less stressful, it is important to note that exogenous factors, such as mortality, accidents, or other uncontrollable events can also be precipitants of depression (Billings & Moos, 1985). Stress is not a variable that lies completely within the individual, and its impact probably interacts in complex ways with several components of personality. But the significance of life events for depression is better understood once personality dynamics are taken into consideration (Hammen, 1988). As was highlighted throughout this thesis, stressors that impinge directly on one's needs could be more distressing to the individual, particularly if there are no alternative sources of self-definition (Linville, 1987). The current model emphasized these factors, and would suggest for example, that exit events may be important for dependent individuals, even though they have been linked to depression in only 10% of the general population (Paykel, 1982).

The current model could be criticized on the proposed direction of causality. The underlying assumption throughout this research is that specific personality characteristics play an etiological role in the vulnerability to affective disturbances. However, as cautioned by some researchers

(Akiskal, Hirschfeld, & Yerevanian, 1983; Barnett & Gotlib, 1988), personality types may be symptoms or concomitants of depressive moods as opposed to being etiological factors. Furthermore, it has been suggested that psychosocial variables such as distressed relationships and deficits in social behaviours may be consequences as opposed to antecedents to depression (Barnett & Gotlib, 1988). Unfortunately, there are very few studies that have been able to demonstrate the temporal precedence and causal role of specific factors for the onset of depression (Depue & Monroe, 1986). Barnett and Gotlib (1988), in a review of the abundant literature on psychosocial factors postulated to be of etiological importance for depression, have described the difficulties involved in conducting adequate prospective studies. Ideally, such prospective research would follow an unselected population across time and obtain multiple measurements. An alternative strategy, such as a two-wave panel design where a variable is assessed first and used to predict subsequent levels of depression, also has serious limitations. For example, in the current research, the personality variables were assessed first and a few months later were found to predict levels of affect. Because initial levels of negative affect were not measured, it is possible that dependency and self-criticism may simply co-occur with affective disturbances, or be exacerbators of mood without necessarily being involved in the pathogenesis

of the problem (e.g. Klein, Harding, Taylor, & Dickstein, 1988).

One way to address this issue is to examine the personality variables that have been shown to be present during asymptomatic states. In a review of the large body of literature on neuroticism and introversion-extraversion (Eysenck & Eysenck, 1985), Barnett and Gotlib (1988) report that levels of neuroticism appear to fluctuate with levels of depression, whereas introversion is a more stable characteristic of depressives which also differentiates them from controls during asymptomatic states. Moreover, interpersonal dependency (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977) was found to be a characteristic of recovered depressives in a number of studies. Finally, low social integration (Phifer & Murrell, 1986) is one factor which has been shown to be related to the onset of depressive symptoms (Barnett & Gotlib, 1988).

The parallels between the variables that have been considered precursors to depression, and dependency and self-criticism are worth noting. Interpersonal dependency (Hirschfeld et al., 1977) is a construct which is intimately linked to dependency as operationalized in this study. Introversion and low social integration are consistent with the motivational results for the self-critical subjects. These parallels lend some support to the vulnerability notion in relation to dependency and self-criticism.

It may also be important to note that the average age of our sample (20 years) suggests that most subjects had not yet experienced a clinical episode of depression. Therefore, the variables studied probably were not mere consequences of an affective disorder, although this alternative cannot be ruled out since no psychiatric history was obtained. The stability of the personality variables over a one-year period (Zuroff et al., 1990) also argues against their being mere reflections of a mood disorder. Finally, childhood antecedents to self-criticism (Koestner, Zuroff, & Powers, 1991) have been identified in a prospective design. Retrospective reports suggest that distinct childhood experiences are associated with dependency as well (McCranie & Bass, 1984). Since these personality constructs may well have continuity over the years, it appears reasonable to consider them as contributing factors to depressed mood as opposed to epiphenomena or consequences.

The issue of causality could also be raised with other aspects of the current model. For example, depressive affect could give rise to emotional ambivalence and to negative striving characteristics. Negative affect could also lead to dysfunctional attitudes (Silverman, Silverman, & Eardley, 1984). These alternatives merit serious attention, and are difficult to refute on the basis of a correlational design. However, statistical control was employed in order to strengthen the proposed interpretations. For example, in the

first article, personality was shown to predict dysfunctional attitudes after controlling for levels of depression, which suggests that the relationship is not just a function of mood. Moreover, a prospective study found remitted depressives at a one-year follow-up to endorse a specific subset of dysfunctional attitudes reflecting the need to please others and perfectionistic standards (Reda, Carpiniello, Secchiaroli, & Blanco, 1985). The same themes are comprised in the anaclitic and introjective attitude subscales which suggests that they too may be more enduring aspects of personality.

The depressive subtypes described in this thesis have been considered in the context of therapeutic interventions. As described by Beck (1983), sociotropic and autonomous individuals experience distinctive problems, and may respond differently to various therapeutic methods. He noted the importance of the therapeutic relationship for sociotropic individuals, and emphasized a goal-oriented, collaborative approach for autonomous types (Beck, 1983). Similarly, Blatt (1990; 1991) discussed how dependent and self-critical individuals make different gains during therapy and how certain interventions produce better results according to the personality style. The model proposed in this thesis also indicates that the cognitive and motivational vulnerabilities of dependent and self-critical individuals are different, which suggests that different therapeutic

aims may be appropriate.

It is worth highlighting an intriguing observation made previously by different researchers and corroborated by the current data. It has been suggested that a counter-sex role orientation may have particularly detrimental affective consequences (Chevron, Quinlan, & Blatt, 1978; Smith, O'Keefe, & Jenkins, 1988). The present studies found that self-critical women and dependent men reported a significantly greater number of negative life events. The over-investment hypothesis was also supported for these two groups. That is, self-critical women reported being less affiliative, less intimate, but more achievement-oriented. Dependent men reported being more affiliative, more intimate and less achievement-oriented. These motivational dispositions are opposite to the prescribed societal norms and values, and could create internal conflicts between one's needs and what is viewed as "desirable and normal." In fact, self-critical women rated their personal strivings as socially undesirable, indicating an awareness of deviation from social norms and values. These dispositions could also place an individual at greater risk for depression through the experience of sanctions and reprobation for particular behaviours. Further research should address sex differences in the implications of dependency and self-criticism.

A weakness of this research is that the relationship between dependency, self-criticism and other personality variables such as extroversion and neuroticism were not tested. No statements can be made with respect to the unique contributions of Blatt's distinctions, over other personality constructs. However, dependency and self-criticism were found to have distinctive relationships with a variety of variables, and it may important that they continue to be differentiated.

Another weakness of the current studies stems from the subject selection procedure. Only those who scored in the upper and/or lower distributions of the Dependency and Self-Criticism scales were examined such that generalizations to those having less extreme scores remain tentative. Departures from linearity could not be tested, and this possibility, although unlikely, remains to be tested with samples containing the entire distribution of scores.

In summary, the level of agreement from different theoretical perspectives for these personality subtypes, and the accumulating evidence for the distinctiveness of each personality style in a variety of domains suggests that dependency and self-criticism have achieved some degree of validity. As shown by the current research, they have heuristic value for the understanding of motivational investments, precipitating events and emotional profiles. In

this view, they remain important personality constructs for the understanding of depression.

In light of the model proposed in this thesis, the areas that merit further investigation include the influence of personality on negative life events, in order to obtain a clearer picture of the mechanism involved in this relationship. This would greatly enhance our understanding of the reciprocal influences between personality and environment which may be instrumental in the maintenance of vulnerability to depressive states. Future research could also focus on the origins of motivational deficits, and determine whether cognitive biases are responsible for the motivational characteristics related to negative affect. This would provide even greater weight to cognitive models of depression. Finally, ambivalence over emotional expressiveness is a new concept which merits further investigation, particularly with reference to negative affect and depression. Methodologically, this type of research would be greatly enhanced by prospective designs, with multiple assessments of mood and of factors hypothesized to be etiologically significant. This would be invaluable in documenting those aspects of functioning that are antecedents and those that are concomitants of depression.

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