



A MULTIDIMENSIONAL MODEL OF SELF-ESTEEM IN DEPRESSION

John E. Roberts

University of Pittsburgh

Scott M. Monroe

University of Oregon

ABSTRACT. *Although the concept of self-esteem plays a crucial role in current vulnerability models of depression, empirical studies have found that overall level of self-esteem is not a robust predictor of the onset of the disorder. To resolve this discrepancy we propose a multidimensional model of self-esteem in depression. Psychodynamic, cognitive, and social-environmental models each imply that the nature of vulnerable self-esteem is considerably more complex than simply level (i.e., high vs. low self-esteem) and that other dimensions might be more causally important. According to this multidimensional approach, vulnerability includes (a) structural deficits, such as few, rigid, or externally based sources of self-worth; (b) abnormally low self-esteem that is "primed" by either mildly depressed mood, stressful events, or schema-congruent experiences; and (c) temporal instability of self-worth. We review theoretical and empirical evidence relevant to this model.*

Self-esteem (SE) and constructs of a similar nature (e.g., negative self-schemata) have been thought to play a central role in the etiology, maintenance, and recovery from depression across diverse theoretical and clinical literatures (e.g., Beck, 1967; Becker, 1979; Bibring, 1953; Brown & Harris, 1978; Rado, 1928). Such ideas have widespread intuitive appeal, as can be seen within the popular press (e.g., Steinem, 1992). However, a growing body of empirical studies casts doubt on the idea that low SE is a causal factor in depression, and instead suggests that low SE is merely a consequence or symptom of depression without causal import (see reviews by Coyne & Gotlib, 1983, 1986; Haaga, Dyck, & Ernst, 1991). These studies have found it difficult to demonstrate that low SE prospectively predicts depression independently of concurrent psychopathology (e.g.,

Correspondence should be addressed to John E. Roberts, Northwestern University, Department of Psychology, 2029 Sheridan Road, Evanston, IL 60208-2710.

dysthymia) or that low SE remains subsequent to the remission of an episode. In order to infer causality, SE must be shown to be conceptually and temporally independent of depression itself.

We nonetheless suggest that there may be an important kernel of truth in these theoretical and clinical intuitions concerning SE that largely has been ignored by the empirical literature. Theory, research, and clinical experience suggest that the nature of vulnerable SE is considerably more complex than simply level (e.g., high vs. low SE), which is the dimension that is almost exclusively focused on in the above-mentioned studies. Despite theoretical consensus concerning the importance of SE in depression, there has been little explicit discussion of the specific nature and dimensions of vulnerable SE.

By *vulnerable* SE, we are referring to those characteristics of SE that place individuals at risk for future depression. In attempting to delineate these qualities, we cast a wide net on SE, and various constructs converging on SE are examined ranging from self-schemata and negative self-cognition through "narcissistic intolerance." In addition to different literatures using diverse terms for similar ideas, ostensibly identical ideas often are based on very different aspects of SE including (a) experienced SE (i.e., one's conscious feelings of self-worth), (b) knowledge about the self that is used in self-evaluation, and (c) processes and judgements involved in self-evaluation. Although we see experienced SE as the conscious product of self-evaluative judgements, we believe that knowledge about the self (e.g., self-schemata) and processes involved in self-evaluative judgements may have crucial importance and bearing on depression. These latter structures and processes are not necessarily conscious or directly accessible (Mandler, 1984).

This article examines how SE might be causally related to depression from three diverse theoretical perspectives: psychodynamic, cognitive, and social-environmental. From the literature, particular characteristics or dimensions of vulnerable SE are extracted and critically examined. We believe these perspectives converge in suggesting that vulnerable SE includes (a) structural deficits, such as relatively few, rigid, or externally based sources of self-worth; (b) abnormally low SE that is "primed" or triggered by either mildly depressed mood, stressful events, or schema-congruent experiences; and finally (c) temporal instability of self-worth, or labile SE. It is suggested that these dimensions of SE are relatively more independent of concurrent clinical status than level (i.e., high vs. low SE) and may serve as useful risk indices of depression.¹

PSYCHODYNAMIC MODELS

Psychodynamic theorists have long speculated on the importance of SE in depression, with Freud being the first to distinguish between mourning and melancholia by the fact that the latter involved self-deprecation (Freud, 1917/1986). Although often coming from

¹The articles upon which this review is based refer to depression as either a clinical disorder or a mood state, assessed through diagnostic interviewing or self-report instruments, respectively. Potential problems arise when comparing such studies because these two methods may each lead to the classification of different entities. Self-report instruments might classify a broader band of disorders and conditions because of an underlying similarity, such as negative affect, across various disorders and states of emotional distress (Watson & Clark, 1984). Therefore, a wide variety of conditions may be lumped under the rubric of depression because they all share this common characteristic (Depue & Monroe, 1986). Despite the inherent ambiguities associated with self-report instruments of depression, such studies can be useful; they may provide an important first step in testing various propositions which must, however, eventually be studied within the clinical realm.

very different theoretical traditions, research within social and personality psychology offers some support for these clinically based ideas. We focus on three major themes: sources of SE, intrapsychic conflict, and negative overgeneralization.

Sources of Self-Esteem

Within the psychodynamic literature, the depression-prone person is believed to be overly dependent on external sources of self-worth. Like young children, depressives have a strong "narcissistic" dependence on others; they require the constant love and approval of others to maintain their SE. On the other hand, normal persons have achieved a certain degree of independence from the reactions of others; their SE is more dependent on their own achievements and abilities (Arieti & Bemporad, 1978; Chodoff, 1972; Rado, 1928). Fenichel (1945) captured this flavor by describing depressives as "love addicts," persons who are constantly in search of reassurances that they are good and worthy, whereas Rado (1951) called depression "a desperate cry for love." Because of this overreliance on others, depression-prone individuals carry an excessive vulnerability to disappointment and loss. They lack a stable, internal anchor of self-worth (Arieti & Bemporad, 1978, 1980; Rado, 1928). In support of this argument, a recent well-designed prospective study investigating the interpersonal concomitants and antecedents of clinical depression found evidence that a style of interpersonal dependency and self-devaluation characterized not only currently depressed persons, but also those who became depressed over the course of the study (Hokanson, Rubert, Welker, Hollander, & Hedeon, 1989; see also Barnett & Gotlib, 1988 for a related discussion).

Other recent conceptualizations of depression are compatible, suggesting an "Achilles' heel" based on depressives' narrow and limited sources of SE. In this regard, Blatt differentiated between dependent and self-critical depressives (Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982), whereas Beck (1983), coming from a very different theoretical tradition, delineated two similar depressive subtypes according to their primary source of SE: sociotropic and autonomous depressives. Sociotropics (or dependents) attain higher SE primarily through interpersonal relationships and are thought to be particularly sensitive to the loss of such relationships. Autonomous (or self-critical) depressives attain higher SE primarily through their own independent achievements and are believed to be particularly sensitive to failure.

A number of empirical studies have demonstrated that these "styles" are associated with depressive reactions (in both clinical and nonclinical populations) following negative life events, especially events that are congruent with their particular area of sensitivity (see Nietzel & Harris, 1990 for a review). Additionally, there is an association between dependency and the perception of interpersonal events as stressful, and one between self-criticism and the perception of achievement-related events as stressful (Mongrain & Zuroff, 1989). Overall, this research is consistent with the idea that future depressives overvalue particular domains, which renders them vulnerable (see Blatt & Homann, 1992 for a review of the childhood antecedents of these patterns).

Intrapsychic Conflict

Another psychodynamic perspective suggests that intrapsychic conflicts involving discrepancies between superego, ego, and self-representations are an important predisposition to depression (Freud, 1917/1986; Jacobson, 1975). That is, future depressives are believed to exhibit marked differences between their ideal standards (both morally and materially) and their perceptions of meeting those standards. According to this view, SE depends on the ability to live up to one's ideals. Meeting such internal standards leads to narcissistic

gratification (i.e., positive SE), whereas failure to do so results in narcissistic injury and a fall in SE (Jacobson, 1975; see also James, 1890/1948; Rogers, 1961).

Support for these ideas comes from three sources: studies that demonstrate that currently depressed individuals have exceedingly demanding standards for themselves (e.g., Golin & Terrell, 1977; Hewitt, 1989; Hewitt & Dyck, 1986; Hewitt & Flett, 1991), studies that show large discrepancies between actual and ideal selves in depressives (see Higgins, 1987 for a review), and studies that indicate that environmental priming of individual's particular discrepancies leads to *increased* negative affect in both subclinical (Strauman & Higgins, 1987) and clinical populations (Strauman, 1989).

A related view suggests that those vulnerable to depression exhibit little narcissistic tolerance (i.e., the ability to tolerate discrepancies between one's real and ideal selves). Given the same degree of discrepancy, depressives will become more distraught than nonvulnerable persons. Thus, depressives overreact to minor disappointments and frustrations, with significant drops in SE and subsequent depression (Rado, 1928). In support of this idea, two studies found that narcissistic intolerance discriminated remitted depressives from never-depressed controls (Altman & Wittenborn, 1980; Cofer & Wittenborn, 1980) (see Hyland, 1987 for a sophisticated cybernetic view of these processes).

Negative Overgeneralization

Another psychodynamic view suggests that those prone to depression have particularly hyperactive or punishing superegos, which lead to negative overgeneralization (Jacobson, 1975). Within normal persons, self-criticism over a particular fault does not imply self-hate. Criticism is limited to the specific aspect of self that is found to be at fault. However, those prone to depression are unable to neutralize the "aggressive drive energy" of their superegos. They react to specific failures with a global rejection of their entire self. This global self-hate can occur following quite specific and limited failures and disappointments (Jacobson). Disappointment in a given domain will have implications throughout the depressive's entire psychic life, rather than being limited to that specific domain. In a similar vein, depressives are believed to regress to an infantile state of ego helplessness after failure experiences (Bibring, 1953). This tendency of depressives to overgeneralize following failure has been empirically documented in several studies (Carver & Ganellen, 1983; Wenzlaff & Grozier, 1988) and has been shown to mediate the relationship between low SE and negative reactions (affective, motivational, and attributional) following a failure experience (Kernis, Brockner, & Frankel, 1989).

Summary of Psychodynamic Views

Within the psychodynamic literature, the future depressive appears overly dependent upon few, external sources of self-worth; has unrealistically high criteria for achievement; and/or is not able to tolerate small discrepancies between his/her goals and actual performance (narcissistic intolerance). Vulnerability is also described in terms of SE's lack of resilience to failure or loss experiences (negative overgeneralization), implying abnormally low SE that is easily triggered by these negative experiences. Although persons predisposed to depression exhibit normal levels of SE when not faced with environmental challenges, their SE easily plummets in response to events that others might regard as trivial. Temporal instability in SE would result from such hypersensitivity to life's vicissitudes. From these perspectives, then, vulnerable SE can be seen as potentially encompassing three broad dimensions: limited, narrow, and largely externally based sources of SE; low SE that is activated by certain negative experiences; and temporal instability of SE.

COGNITIVE MODELS

Cognitive theorists have been the most explicit in claiming that one's evaluations of self have important emotional consequences. Although there has been a wide variety of cognitive phenomena postulated as having etiological importance in depression, SE appears to be a concept that underlies many of these positions. In this section we focus on three topics: the implications of self-schema theory and research on SE and depression, automatic cognitive processing, and Teasdale's differential activation theory.²

Self-Schemata and Depression

From a cognitive science perspective, schemata are organized knowledge structures that guide information processing (Johnson & Magaro, 1987; Mandler, 1984; Segal, 1988). Self-schemata thus are knowledge structures about the self (see Horowitz, 1991). Research suggests that self-schemata are efficient information processors of data related to the individual (Deutsch, Kroll, Weible, Letourneau, & Goss, 1988; Hewitt & Genest, 1990; Markus, 1977; Rogers, Kuiper, & Kirker, 1977). Self-schemata can be viewed as broad constructs encompassing all information pertinent to one's self, including self-evaluative material (i.e., knowledge used in making self-evaluative judgements). Although self-schemata are by no means synonymous with SE, we believe that they provide the foundation stones upon which experienced SE is based (i.e., self-evaluative knowledge).

One of the most potentially productive methods of assessing self-schemata in depression is through information processing paradigms (Ingram, 1984; Monroe & Roberts, 1991). By more directly tapping cognitive processes, such approaches avoid the tautologies involved in paper-and-pencil tests. Such self-report studies have been criticized as merely showing that depression has cognitive correlates: Depressed persons have depressed thoughts and are willing to admit negative things about themselves (Blaney, 1977; Coyne & Gotlib, 1983). In contrast, information processing refers to the way a person filters and structures environmental input (i.e., what information gains attention, enters memory, and can be recalled) and is believed to be guided by underlying cognitive structures (i.e., schemata).

Cross-Sectional Studies. Although early studies within information processing paradigms were cross-sectional (currently depressed subjects were compared to nondepressed subjects), this research suggests a developmental model of self-schemata in depression. Using an incidental recall paradigm, Davis found that with onset of depression self-schemata seem to go through a period of disorganization, only to be reformed after the disorder persisted for a period of time. The early stages of depression are thus characterized by weak and disorganized self-schemata (Davis, 1979a, 1979b; Davis & Unruh, 1981). On the other hand, Derry and Kuiper (1981) found that *clinically* depressed persons have efficient self-schemata in terms of processing *depressed content* self-referent adjectives. Depressed patients exhibited better recall of depressed content material, whereas normals

²Although the reformulated learned helplessness (Abramson, Seligman, & Teasdale, 1978) and, more recently, hopelessness (Abramson, Metalsky, & Alloy, 1989) theories of depression have generated substantial interest within the field, they downplay the causal role of SE and therefore are not included in this review. These theories suggest that low SE and depression are each independent outcomes of slightly different attributional processes (Abramson et al., 1989; Metalsky, Halberstadt, & Abramson, 1987), and thus any correlations between the two are assumed to be spurious.

(and nondepressed psychiatric patients) showed better recall for nondepressed content material. Depressed subjects were no less efficient in their speed of processing self-referent material than nondepressed subjects. However, further research by this group has shown that *mild* depressives (dysphoric college students) exhibit equivalent recall of depressed and nondepressed content self-referent adjectives. However, their speed of processing both types of material was relatively slow, suggesting inefficient, mixed-content self-schemata (Kuiper & Derry, 1982; Kuiper, Olinger, MacDonald, & Shaw, 1985). Unfortunately, duration of depression was not measured in Kuiper's studies.

Other recent social psychological studies have found that low SE (which is highly correlated with mild depression) is associated with lack of clarity and certainty in the self-concept. Baumgardner (1990) asked subjects to rate themselves in relation to the general population on a number of traits. In addition, subjects indicated the percentiles which they were certain they were above and below. Low SE subjects demonstrated larger distances between their highest and lowest ratings, suggesting less certainty in their self-knowledge. Likewise, Campbell (1990) found that low SE subjects reported less confidence, more change over time, and less internal consistency in self-ratings.

Overall, these cross-sectional studies suggest that self-schemata are in a transitional phase early in depression. Davis (1979b) stated that short-term depressives vacillate in their self-references and may be described as confused and uncertain about themselves. If self-evaluative judgements are based upon information encoded within self-schemata, we would expect labile SE early on in depression. However, caution is clearly called for in discussing a developmental process based upon cross-sectional studies. Longitudinal investigations are needed to track the potentially unfolding development of negative self-schemata in depression and to examine aspects of self-schemata that may mark future depressives before the onset of disorder or persist following remission.

Remission and Prospective Studies. Few studies have been conducted that bear on the issue of whether self-schemata (as assessed through various information processing paradigms) act as *vulnerability* factors for depression, as opposed to merely having concomitant status. Remission studies have compared the content of self-schemata of recovered depressed patients to various control groups. If negative schemata are traitlike qualities in those prone to depression, one would expect to find signs of them outside of symptomatic periods. However, Gotlib and Cane (1987) found that whereas symptomatic depressives exhibit negative self-schemata (assessed in terms of attentional processes), recovered depressives do not differ from normals. Another study suggests an absence of positive schemata during an episode (as opposed to hyperactive negative schemata) and a return to normal after remission (Myers, Lynch, & Bakal, 1989).

Two prospective studies have examined negative self-schemata (again as assessed through information processing paradigms) as a vulnerability factor for future depression. Hammen, Marks, deMayo, and Mayol (1985) found that negative schema status on its own or in interaction with life stress did not make college students more vulnerable to depressive episodes (Research Diagnostic Criteria diagnoses) or higher average scores on the Beck Depression Inventory over four monthly follow-ups. Schema status was likewise unrelated to remittance during the follow-up periods. On the other hand, Hammen, Marks, Mayol, and deMayo (1985) found some evidence that more differentiated, domain-specific schemata (affiliative vs. achievement domains) predisposed subjects to depressive reactions following congruent negative life events. Other studies based upon self-report assessments of self-schemata offer only mixed and inconclusive support for the vulnerability hypothesis (Haaga et al., 1991).

These remission and prospective studies test the hypothesis that stable, well-developed,

negative schemata characterize those at risk for depression.³ However, the cross-sectional studies discussed above instead suggest that it is unstable, poorly integrated self-schemata that characterize those at risk for depression. This latter hypothesis has not been tested within a prospective or remission design.

Schema Consolidation. Similar to the argument we are advancing, Kuiper hypothesized that poor self-schemata consolidation might be a vulnerability marker of future depression (Kuiper & Olinger, 1986). Consolidation refers to how efficiently and consistently the individual is able to process self-relevant information. As such, it would be manifested in greater confidence and certainty about one's self-attributes (Swallow & Kuiper, 1988). Because of poor consolidation and lack of self-certainty, persons vulnerable to depression are thought to engage in questioning and evaluating self-worth more frequently. Furthermore, these evaluations are thought to be based upon highly specific behavioral evidence, rather than upon well-organized, general schemata. As such, persons prone to depression would be relatively slow in rating whether attributes are self-descriptive (Dance & Kuiper, 1987; Kuiper & Olinger, 1986).

Paralleling the psychodynamic view, poor schema consolidation is believed to result from future depressives relying on limited and rigid sources of self-worth or what Kuiper refers to as "maladaptive contingencies of self-worth." Future depressives maintain a rigid and unrealistic self-contract concerning what is required in order for them to feel worthy. As long as these contingencies are met, the person is believed to remain nondepressed and to have positive content self-schemata (e.g., positive SE). However, stressors and the inherent difficulty in meeting these contingencies can threaten the self-worth of the vulnerable person, leading to depression and negative self-schemata (Dance & Kuiper, 1987; Kuiper & Olinger, 1986).

There have been several studies conducted that test components of this theory. Some prospective studies suggest that dysfunctional contingencies of self-worth measured at treatment termination might be an important vulnerability marker for recurrence of clinical depression (Rush, Weissenburger, & Eaves, 1986; Simons, Murphy, Levine, & Wetzell, 1986). Other cross-sectional studies suggest that depression involves an interaction between dysfunctional contingencies and life events that impinge on them (Olinger, Kuiper, & Shaw, 1987), as well as an interaction with stress in general (Kuiper, Olinger, Martin, 1988; Wise & Barnes, 1986), but might be limited to female subjects (Barnett & Gotlib, 1990). Importantly, Kuiper's group found greater inconsistencies in self-description in both mildly depressed and vulnerable (as indicated by high endorsement of dysfunctional contingencies), nondepressed subjects, as compared to nonvulnerable, nondepressed subjects. These latter findings were interpreted as indicating relatively poor schema consolidation in the hypothetically vulnerable subjects (MacDonald, Kuiper, & Olinger, 1985).

Automaticity of Cognitive Processing

In a recent review, Hartlage, Alloy, Vazquez, and Dykman (1993) concluded that depressives' ability to effortfully process information is impaired. That is, they have difficulty with conscious, intentional processes that require attentional capacity. However, their automatic processing abilities remain largely intact. That is, depressives are largely unimpaired on nonconscious, unintentional processes that do not require attentional capacity.

³The one exception was Hammen, Marks, Mayol, and deMayo (1985), which attained positive results.

However, these processes may be negatively biased, particularly concerning information about the self (Hartlage et al., 1993).

In order to test the latter hypothesis, Hartlage (Hartlage, 1990; Hartlage & Alloy, 1992) investigated attributional inferences made for positive and negative events under conditions requiring automatic processing. Automaticity was assured through use of a priming methodology in which the interval between the prime and target was too brief for effortful attributions to be made for the prime. In addition, subjects were not told to make attributions for primes and were tested under a memory load. Hartlage hypothesized that depressives and/or those prone to depression (as assessed by a questionnaire measure of attributional style) would make maladaptive attributions (internal for negative events, external for positive events) in an automatic fashion, whereas nondepressed and/or those not prone to depression would make adaptive attributions automatically.

Results of this study indicated that subjects with a depressogenic attributional style, regardless of level of depression, automatically made external attributions for positive events. That is, they tended to effortlessly and nonconsciously discredit themselves for positive events. The authors suggest that vulnerability to depression might involve a breakdown in optimistic biases which makes it difficult to counteract negative mood. After negative life events, experienced stress would narrow the depression-prone person's already limited attentional resources and overwhelm conscious, effortful strategies at mood repair. The nonvulnerable would find it easier to actively recall positive experiences for which they were responsible in order to cheer themselves up (Hartlage, 1990; Hartlage & Alloy, 1992).

From our standpoint, it is most significant that cognitive vulnerability might be manifested only under conditions where effortful processing is overtaxed. Otherwise, the depression-prone person will be able to effortfully counter automatic negative thoughts by generating positive cognitions (Hartlage et al., 1993). If we extrapolate to SE, this work suggests that low SE might be apparent only when effortful processing is impaired (e.g., during periods of dysphoria or stress). As such, low SE could be experimentally activated under these conditions (e.g., depressive mood induction), and naturalistically, SE would appear labile over the course of time.

Differential Activation

Partly in response to evidence that depressed thoughts (e.g., low SE) are largely restricted to periods of depressed mood (Coyne & Gotlib, 1983, 1986), Teasdale (1983) suggested that negative cognition and depressed mood are reciprocally related (i.e., each may lead to the other in a positive feedback loop). Although depressed mood may initially lead to depressive thinking, this negative self-cognition (e.g., low SE) can feed back upon mood, creating a vicious cycle and leading to a full-blown episode of depression (Teasdale, 1983, 1988). Thus, negative self-cognition will exacerbate preexisting depression. Depressed mood will activate negative propositions about the self, which will further feed the depression and create a vicious cycle. This cycle will maintain and worsen the depression. Vulnerability is judged, therefore, in terms of the degree to which negative self-cognition becomes activated by depressed mood. Those who are prone to depression (particularly persistent depression) presumably exhibit more of this negative self-cognition when mildly depressed. In support of this hypothesis, dysfunctional thinking is related to the persistence of clinical depression in already existing episodes in both community (Dent & Teasdale, 1988; Lewinsohn, Steinmetz, Larson, & Franklin, 1981) and patient samples (Williams, Healy, Teasdale, White, & Paykel, 1990). Similarly, a ruminative response style (i.e., inactively dwelling on the possible origins and implications of depressive

moods) predisposes to persistent and severe depression (Morrow & Nolen-Hoeksema, 1990; Nolen-Hoeksema, 1987; Nolen-Hoeksema & Morrow, 1991).

Previous episodes of depression are thought to strengthen linkages between depression memory nodes and negative concepts, leading to greater probability of negative thinking while in a depressed mood (Teasdale, 1983; see also Bower, 1981). In support of these ideas, remitted depressives score higher on measures of negative cognition than normal controls after depressive mood induction (Teasdale & Dent, 1987). Negative cognition also has been found to correlate with naturally occurring mood in remitted depressives, but not in never-depressed controls (Miranda & Persons, 1988; Miranda, Persons, & Byers, 1990; see also Brown & Mankowski, 1993).

Summary of Cognitive Models

The cognitive literature generally argues against the view that low SE is a readily observable trait marker of depression. Information processing studies suggest a strengthening of negative self-schemata as mild depression develops into severe depression and as depression persists. Within this approach, vulnerability would be marked by instability, uncertainty, and poor efficiency in self-schemata, which attenuates as the depression develops and a more ingrained negative self-image takes hold. If SE is based upon evaluative judgements of information structured within self-schemata, these findings imply that the early stages of depression (and perhaps vulnerability to depression) would be characterized by temporal instability in experienced self-worth. Furthermore, the depression-prone person's sources of SE would be rigid and limited, and finally, negative life events would be important in terms of how thematically related they were to specific contingencies of worth.

On the other hand, Hartlage's work in automatic information processing and Teasdale's differential activation theory suggest that an important dimension of vulnerable SE is the extent to which a person's SE falls when the person is stressed or mildly depressed. Such conditions interfere with effortful attempts at counteracting depressogenic automatic processes (Hartlage et al., 1993) and/or directly activate negative cognitive nodes (Teasdale, 1983). In each case, low levels of experienced SE are not seen as an enduring trait, but as a latent characteristic that is only manifest under certain conditions (Hartlage et al., 1993; Teasdale, 1983; see also Riskind & Rholes, 1984). These perspectives imply heightened activation of low SE in the depression-prone in response to certain negative experiences—specifically, mildly depressed mood and stress.

THE SOCIAL ENVIRONMENT, SELF-ESTEEM, AND DEPRESSION

Researchers investigating depression within a life events framework have begun to incorporate SE into their models to explain individual differences in response to stress (i.e., why only a minority of persons who experience major negative events become depressed). Brown and Harris (1978) were of the first to employ such moderating factors and have conducted the most rigorous and thorough work in the area. This section begins with a brief outline of their basic findings and theory, followed by a more detailed discussion of the relationship between social factors, SE, and depression. Again, this work is reviewed with an emphasis on how SE might act as a predisposition to depression, and what its nature would be in vulnerable persons.

Major Life Events and Depression

Brown and Harris (1978) found relatively strong associations between certain types of severe life events and clinical depression. Forty-nine percent of a depressed patient group

and 57% of untreated community cases experienced a severe event (provoking agent) in the 6 months preceding onset. However, only one in five subjects in the community who experienced a severe event was depressed, suggesting that additional factors must be important. These findings have been well replicated by researchers using similar methods (Brown, 1986) and are unique in their interview-based assessment of life events and explicit criteria for defining events. Such methods represent a radical improvement in the life stress literature, guarding against many difficulties inherent in self-report studies (McQuaid et al., 1992; Monroe & Roberts, 1990).

Importantly, certain social characteristics potentiate the risk of depression: lack of an intimate, confiding relationship; having three or more children living at home; lack of employment; and early loss of one's mother. Brown and Harris speculated that these vulnerability factors were related to onset of depression following a severe life event because they create an initially low baseline of SE which is conducive to hopelessness. Under such conditions, feelings of hopelessness specific to the event are thought to generalize across all areas of life. The past, present, and future are all implicated and despaired, making it difficult to maintain good thoughts about one's self or life situation. A severe event would lead to the cognitive appraisal of one's entire world as hopeless, and this generalization of hopelessness is what forms the central core of clinical depression (Brown & Harris, 1978; see also Abramson, Metalsky, & Alloy, 1989). However, a healthy sense of SE would protect against hopelessness generalizing throughout one's life.

Prospective Studies of Self-Esteem and Life Events

Recent studies have prospectively examined low SE and life events in predicting future depressive episodes. Brown and his colleagues investigated the influence of psychosocial factors in the onset of depression in women in a 2-year longitudinal community study (Brown, Bifulco, & Andrews, 1990a; Brown, Bifulco, Harris, & Bridge, 1986). In addition to interview-based assessment of life events, positive SE and negative SE were measured through summing positive and negative self-statements made during another interview designed to elicit feelings about the self. These constructs were termed "positive evaluation of self" (PES) and "negative evaluation of self" (NES), respectively (see Brown, Andrews, Bifulco, & Veiel, 1990). Subjects who were initially clinically depressed were screened out; however, cases other than depression and subclinical depressives were retained as a separate group, chronic subclinical conditions (CSC).

The results of this investigation supported Brown's earlier speculations concerning the moderating role of SE. NES was much more highly associated with later depression than non-NES, but only given the intervening occurrence of a severe event. Alone, NES did not lead to depression. Although NES also was associated with CSC, these data suggest that they are both independently associated with an increased risk of depression among those with a provoking agent. NES was not merely a symptom of subclinical disorder, but acted as a true vulnerability factor; it only led to depression in tandem with life stress (Brown, Bifulco, Harris, & Bridge, 1986). Further analyses of these data have suggested that, although NES is closely associated with inadequate social support, it nonetheless plays an independent role (Brown et al., 1990; see also Brown, Andrews, Harris, Adler, & Bridge, 1986). Interestingly, PES was unrelated to onset of depression but, along with absence of NES, was related to recovery (Brown, Bifulco, & Andrews, 1990b).

Another longitudinal community investigation documented a moderating role of SE (measured by self-report inventories) in the onset of clinical depression in women. In a first pass on these data, low SE was shown to be only weakly related to future cases of depression (6 and 12 months later), and only in those subjects who had a history of

psychiatric disorder. Some of this effect was related to initial subclinical depression (Ingham, Kreitman, Miller, Sashidharan, & Surtess, 1987). However, when these investigators also examined the role of life events and difficulties (assessed through methods similar to Brown's), they found that total stress interacted with low SE in predicting depression, whereas SE made no contribution alone (Miller, Kreitman, Ingham, & Sashidharan, 1989).

On the other hand, Lewinsohn et al. (1981) found no evidence that negative cognition (including low SE measured by self-report) was an antecedent to clinical depression in a large community sample ($n = 998$). In a recent reanalysis of these data, Lewinsohn, Hoberman, and Rosenbaum (1988) found that self-reported life change events did not interact with dysfunctional cognition in predicting new cases of clinical depression. However, negative cognition did tend to predict higher levels of self-report depressive symptoms, which in turn predicted future cases of depression. Further, close examination of the data reported in their tables reveals that a measure of dissatisfaction with one's self discriminated subjects who became clinically depressed from those who remained healthy (see Lewinsohn et al., 1988, p. 257).

Social Roles, Self-Complexity, and Self-Esteem

In an attempt to explicate the process by which major life events lead to depression, Oatley and Bolton (1985) suggested that such events disrupt a person's sense of selfhood and deflate SE. They stated that depression follows from the disruption of a role that had been a primary source of a person's SE when no alternative sources of self-worth are available (Oatley & Bolton, 1985). Within this model, it is assumed that one's selfhood is defined through social roles and position (Mead, 1934). Role identities and self-evaluation of one's performance in them are at least partly what give rise to SE (Becker, 1971, 1973; Brown & Harris, 1978; Thoits, 1983).

Oatley and Bolton (1985) described Brown's provoking agents as events that either entail the loss of persons who enable one to perform a self-definitional role or make it impossible to continue performing a self-definitional role in a manner that is convincing to oneself. In either case, the individual experiences a loss of his/her sense of self-worth. The degree to which a person experiences such lack of worth and dejection depends upon how central the lost role was to her/his identity. The importance of a stressful life event in the onset of depression is seen in the context of how it fits within the person's own framework of self-definitional goals, or in other words, how it impacts upon one's SE. "A loss results in depression when it radically undermines a person's self-worth, and she or he has no other source of worth from alternative roles" (Oatley & Bolton, 1985, p. 383) (see Hyland, 1987; Pyszcynski & Greenberg, 1987, for related views).

Linville's (1985, 1987) research on the affective consequences of self-complexity is consistent with certain key aspects of this model. She found that complex cognitive representations of the self serve to moderate the negative affective consequences (including depression) of stressful life events (Linville, 1985, 1987). But what is the relationship between self-complexity and SE? We suggest that low self-complexity overlaps with our theme of limited sources of self-worth in those at risk for depression. Self-complexity can be seen as the person's cognitive representation of his/her role relationships and attributes or sources of self-worth. The value of each source of SE or aspect of self is proportionately greater with fewer other independent sources. Challenges to any self-aspect in a low self-complexity subject are, therefore, more likely to undermine SE.

Although complexity of self acts as a buffer against stress, recent research suggests that an overly differentiated self-concept suggests fragmentation and is associated with poor

emotional adjustment (including depression), as well as poor socialization (Donahue, Robins, Roberts, & John, 1993).

Summary of Social-Environmental Models

Although Brown and Harris (1978) suggest that level of experienced SE *moderates* the relationship between major life events and depression (i.e., only those with low baseline SE become depressed following negative events), other theorists (Hyland, 1987; Oatley & Bolton, 1985; Pyszczynski & Greenberg, 1987) posit that low SE *mediates* between stress and depression (i.e., life events cause a plunge in SE which in turn causes depression; see Baron & Kenny, 1986 for a discussion of the distinction between moderating and mediating variables). According to the latter view, negative life events are related to the onset of depression in terms of how they are involved in the collapse of a person's level of SE. Like the conclusions derived from the psychodynamic and cognitive literatures, low SE may only characterize persons who are already depressed.⁴ On the other hand, vulnerability to future depression would involve a fragile structure of SE. That is, the individual may have limited sources of self-worth and/or these sources may be difficult to maintain.⁵ By implication, this framework also suggests that SE that easily plummets following particular types of negative life events, as well as temporal instability in SE, would mark the future depressive.

AN INTEGRATED MODEL OF VULNERABLE SELF-ESTEEM

Although there exists a great deal of theoretical argument supporting the causal importance of vulnerable SE in depression, theory as well as empirical evidence suggests that it is an elusive construct that largely has evaded adequate measurement in prior investigations. Instead of existing as a stable trait marker in terms of level (i.e., low SE), this review suggests three major facets of vulnerable SE: (a) structural inadequacies, (b) lack of resilience to various primes (e.g., failure experiences, loss, depressed mood), and (c) temporal instability. In this section, we discuss each of these characteristics in greater detail, concluding with a section on their interrelationships.

Structural Deficits

Psychodynamic, cognitive, and social-environmental literatures converge in positing structural inadequacies, such as limited sources of SE, as a vulnerability factor for depression. Similarly, Steele (1990) suggests that there are individual differences in the overall structure of global SE in terms of its sources, as well as each source's valence (i.e., whether it has positive or negative impact on global SE) and salience (i.e., to what degree it impacts upon global SE). Persons with fewer sources that are important and positive are believed to be more threatened by challenges to SE (Steele). In our view, they would be also relatively vulnerable to depression. Predisposition to depression also might involve a relative preponderance of negative domains and/or "possible selves" which when activated by congruent life experiences become central elements in consciousness (Markus & Nurius, 1986; Markus & Wurf, 1987), acting to deflate global SE.

⁴Nevertheless, low SE might still act as the most proximate or immediate cause of depression. However, it would not necessarily be manifest before an episode.

⁵Although Brown's studies have found that NES is associated with the onset of depression, we later discuss how this measure actually incorporates priming and cannot be considered equivalent to ordinary questionnaire measures of SE.

Although Linville's (1987) concept of low self-complexity (which is based upon sorting trait adjectives into clusters based upon personal meaningfulness) would seem to overlap with our notion of limited sources of SE, we are interested in the complexity of a more specific kind of self-information—namely, that used in one's *self-evaluations*. Even more specifically, we are interested in the complexity of SE enhancing information and the complexity of SE degrading information. Such a modification to Linville's concept would guard against the possibility that a frustrating, nonrewarding life domain may be as personally meaningful (in a negative sense) as a rewarding, SE-enhancing domain. It would also allow the investigation of both positive and negative domains of self, including negative possible selves (see Markus & Nurius, 1986). Theoretically, vulnerability would be related to having few SE-enhancing sources relative to SE-degrading clusters (see Hoelter [1985a, 1985b] for a related approach to measuring multiple aspects of identity).

Lack of Resilience to Primes

Our review suggests diverse theoretical support for the idea that abnormally low SE is activated by certain experiences in those predisposed to depression but is otherwise not readily accessible. However, there are two contrasting possibilities: (a) The future depressive has an underlying negative self-image that lies dormant, blanketed by relatively positive layers of self (e.g., Bibring, 1953; Hartlage et al., 1993; Teasdale, 1988), or (b) the future depressive simply possesses a weak foundation of positive SE, with no underlying negativity (Oatley & Bolton, 1985; Rado, 1928). In other words, a distinction is being made between the activation of negative SE and the deflation of positive SE (see Brown, Andrews, Bifulco, & Veiel, 1990). In the first case, various "primes" activate a latent negative self-image which thrusts itself into consciousness. In the second, primes (particularly loss events) disrupt a fragile structure of positive SE. Here there is no implication of a preexistent negativity, merely the loss of positivity. In either case, level of SE would generally be normal in the future depressive. Abnormally low SE only would be experienced following activation.

Various theorists posit different types of priming required to activate negative SE or deflate positive SE. For example, psychodynamic thought suggests that a future depressive's SE is less resilient to challenges, such as losses and failures. On the other hand, Teasdale (1983) suggests that mood acts as a prime for negative self-cognition, whereas Hartlage believes that experiences that interfere with effortful cognitive processing (e.g., stress) make it more difficult to counteract negative automatic thinking (Hartlage et al., 1993). Finally, Riskind and Rholes (1984) suggest a schema-congruent activation where environmental events thematically related to critical negative life experiences (most likely from childhood) prime depressive patterns of thought, such as low SE.

Brown's investigations of SE and depression suggest the possibility that self-focussed attention acts as a prime. As mentioned previously, a measure based on negative self-statements made during a lengthy personal interview predicted future onsets of depression (Brown, Bifulco, Harris, and Bridge, 1986, 1990a). Such in depth discussion is likely to act as a prime, focussing subjects attention on themselves. Subjects may need to look inward before negative SE becomes manifest.

Temporal Instability

As a consequence of either structural deficits in SE or lack of resilience to primes, those prone to depression would exhibit temporally unstable SE. Experienced SE would act as a fluctuating state that is highly reactive to life's vicissitudes. Labile SE, rather than low

SE, would characterize those at risk for future disorder (see Barnett & Gotlib, 1988 for similar conclusions), requiring a dynamic, as opposed to static, analysis of SE. Within such an approach, lability could be investigated through multiple assessments of SE over time. With multiple assessments, temporal variance can be used as a predictor variable. Individuals can be grouped according to their level of stability on the construct (Epstein, 1983; Larsen, 1987). If SE was tracked over a length of time, there would be greater variance around each individual's mean score in those who were at risk for future disorder, reflecting their less stable self-structure.

A recent study found support for this dynamic hypothesis in a nonclinical sample. Labile SE was operationalized as within-subject variance scores in SE. These were taken across nine baseline assessments over a period of 3 weeks. Increases in subclinical depressive symptoms from baseline to follow-up were predicted by labile SE, as well as by synergistic function of labile SE, academic disappointment, and initial depression. This three-way interaction suggested that the combination of high lability and high disappointment leads to the largest increase in symptoms in the initially asymptomatic. On the other hand, level of SE was a relatively weak predictor of changes in depressive symptoms and did not interact with disappointment (Roberts & Monroe, 1992).⁶ In a similar vein, Kernis, Grannemann, and Barclay (1989) found that subjects with labile SE (particularly SE that was labile, but that fluctuated around a high mean level) were most vulnerable to negative emotional reactions (anger and hostility) following academic failure. Interestingly, DeLongis, Folkman, and Lazarus (1988) found that within-subject variance in mood moderated the relationship between hassles and both same-day and next-day mood.

Other recent research suggests that subjects cannot simply be asked how stable/labile their self-evaluations are. Subjects' perceptions of lability are at best weakly correlated with temporal variance in SE and show less meaningful relationships with theoretically related variables (Kernis, Grannemann, & Barclay, 1989; Kernis, Grannemann, & Barclay, 1992). Apparently, SE must be naturalistically observed over time and perhaps across situations.

Core Vulnerability and Its Manifestations

Although we have been distilling conceptual consistencies across different theoretical traditions, we thus far have examined the particular features of vulnerable SE independently. At this point we will focus on their interrelationships and briefly discuss their associations with other psychosocial domains implicated in depression.

This review suggests that there is an inner core of vulnerable SE represented by structural inadequacies (few, external, rigidly maintained positive sources of SE; large self-discrepancies; powerful negative sources), SE-deflating processes (negative overgeneralization, narcissistic intolerance), and poor consolidation (confusion, uncertainty, inconsistency, and slow processing within self-evaluative knowledge). This core is represented by the inner circle in Figure 1. Structural deficits have been discussed throughout the article, whereas the other two elements of this core, processes and consolidation, are outlined within the psychodynamic and cognitive sections, respectively. As can be seen in this figure, we believe that this inner core is responsible for other manifestations of

⁶Such a finding could also be explained plausibly by the "sadder but wiser" literature (Alloy & Clements, 1992). The future depressive would lack the illusory optimism which buffers against the normal ups and downs of life, manifesting itself as SE, which moves up and down in accord with life's vicissitudes. The association between labile SE and depression would therefore be spurious; it would be the result of a third variable, depressive realism.

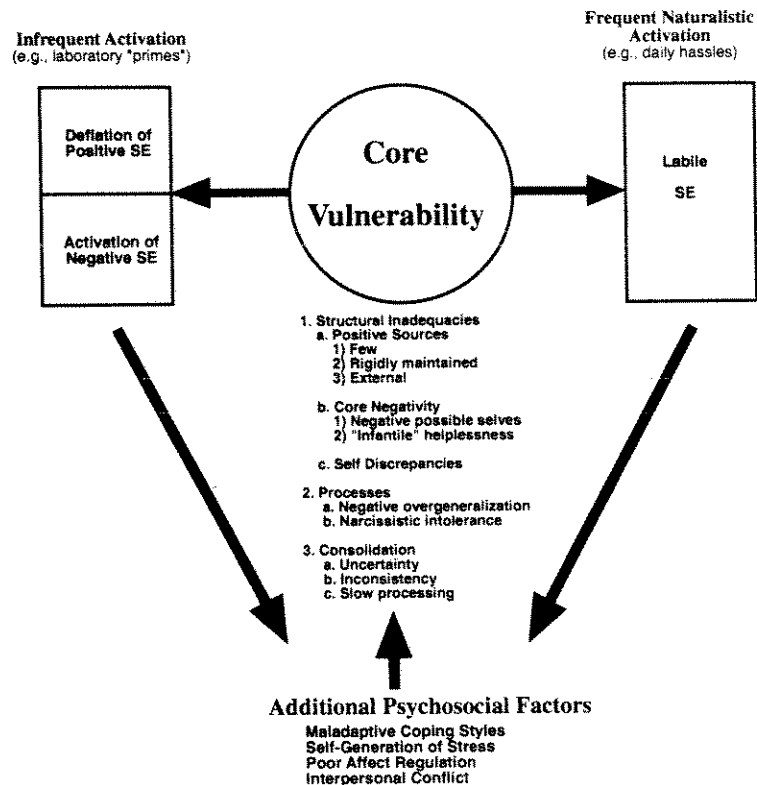


FIGURE 1. Integrated Model of Vulnerable Self-Esteem.

vulnerable SE, such as poor resilience to negative primes and temporal instability, which are represented by the left and right boxes, respectively.

Lack of resilience to negative primes and lability might be seen as reflecting heightened reactivity of experienced SE due to the inner core of vulnerability. As cardiovascular reactivity is seen as a risk factor for heart disease (Krantz & Manuck, 1984), highly reactive SE might similarly render one vulnerable to depression. As Figure 1 suggests, priming and lability might simply reflect differences in time frame, with priming represented by SE's acute reaction to a single prime and lability represented by SE's reactions to multiple primes over the course of time (e.g., daily hassles). Although the inner core might be relatively inaccessible to subjects' conscious awareness and hence difficult to measure, reactivity would be directly experienced by subjects in terms of plunges in their feelings of self-worth and instability in their self-regard over time.

Although an in-depth discussion would be beyond the scope of this article, the lower portion of Figure 1 speculatively draws connections between our model of vulnerable SE and other areas of impaired psychosocial functioning found in depression. It suggests that the outward manifestations of vulnerable SE would have negative impact in other psychosocial domains implicated in depression. We would expect it to be related to poor coping, self-generation of stress, poor affect regulation, and difficulty in interpersonal relationships (see Monroe & Steiner, 1986). We would also expect that difficulties in these domains feedback on one's inner core of vulnerable SE.

CLINICAL IMPLICATIONS

In terms of the treatment of depressive disorders, our model has implications in several areas. First, our model suggests the need for rather specific and detailed assessment of depressives' dysfunctional self-worth. Simply describing clients as being troubled by "low SE" is obviously inadequate. Instead, SE should be treated as a pivotal issue in conceptualization, a "royal road" to an inner core of conflicts and life themes. Conceptualization can take place across multiple levels of analysis from surface level cognitions and behaviors to early childhood experiences where problems in SE regulation were probably first established. This kind of conceptualization might be particularly useful in cases involving comorbid Axis II pathology, such as dependent, narcissistic, and borderline disorders.

Clinicians need to probe for answers to several questions. What are the client's specific domains of vulnerability? Is the client suffering from depletions of positive self-worth or truly negative SE and self-hate? What are the historical origins of his/her vulnerable SE? To what extent are the client's behaviors, relationships, and emotional reactions misguided attempts at maintaining a fragile sense of worth?

Second, we see our discussion of vulnerable SE as offering the beginnings of one possible framework for integrative psychotherapy. In essence, this model helps articulate points of convergence between psychodynamic, cognitive-behavioral, and interpersonal psychotherapies. We see each as attempting, either directly or indirectly, to help clients better regulate their SE and attain more stable avenues for achieving positive views of themselves. Cognitive therapies target low experienced SE manifest as negative automatic thoughts about the self and misrepresentations of reality. Interpersonal therapy focusses on problems in SE represented in a social nexus of dysfunctional interpersonal relationships and social roles, whereas psychodynamic approaches focus on an inner core of fragile SE laid down in early childhood object relations. We believe that there is benefit in the systematic employment of such approaches, as reflected in recent moves toward integrative therapy (e.g., Gold, 1990; Safran & Segal, 1990).

Finally, the model suggests several potential indicators for relapse involving the fragility in SE we have discussed throughout this article. Following symptom remission, clients who still primarily derive self-worth from external sources, exhibit SE that easily plummets in various crisis situations (e.g., loss or failure), or who show labile SE are thought to be at heightened risk for relapse. Although clients' primary symptoms of depression (e.g., disturbances in mood, appetite, sleep) may have abated, they may still exhibit signs of vulnerable SE. If so, treatment did not seal off this potential pathway to relapse. Depending upon clients' experience of stressful life events, they would be at risk for recurrence of the disorder. The continued experience of vulnerable SE, despite symptom remission, theoretically indicates the need for longer term, prophylactic treatment.

GENERAL DISCUSSION

This review points to the pivotal role vulnerable SE plays across diverse etiological theories of depression. Several highly related possibilities are suggested. First, vulnerability is thought to rest within the future depressive's structure of SE. That is, those predisposed to depression base their self-worth upon fewer and less stable sources than nondepressives. These sources tend to be external, rigid, and difficult to maintain. They may also have a relative preponderance of negative domains or "possible selves" (Markus & Nurius, 1986). Second, priming theories suggest that persons vulnerable to depression either harbor negative views of themselves that lie dormant until activated by stressful life events and/or negative mood (Riskind & Rholes, 1984; Teasdale, 1983), or simply possess SE that plunges following such experiences (Oatley & Bolton, 1985). Once activated, low SE is

thought to play an important role in the maintenance and severity of depression. Finally, because of this weak foundation their SE is thought to be more highly reactive to daily stressors, appearing temporally unstable. In each of the above cases, depressives would not be characterized by low SE, except immediately prior to and during depressive episodes in reaction to loss of "narcissistic objects" or contingencies of self-worth. Therefore, this model is consistent with the empirical literature which finds that level of SE does not consistently predict depression prospectively or discriminate remitted depressives from never-depressed controls.

The theoretical and empirical works examined in this review are strongly suggestive of the above-mentioned constituents of vulnerable SE. However, at present these ideas remain tentative and heuristic: They imply new ways of investigating SE in depression which require further direct support. Furthermore, within our current state of knowledge, these features only represent a description of SE's role in depression and, unfortunately, cannot explain the underlying mechanisms by which they act. Assuming that our analysis is basically on target, substantial questions remain unanswered. The role of vulnerable SE (or the lack thereof) in day-to-day affect regulation and coping with stress remains to be investigated, as well as its developmental origins and specificity to depression. As with any theory of depression, gender differences need to be explained. Finally, the historical and cultural relativity of self-definition and evaluation needs to be explored (Baumeister, 1987; Kleinman & Good, 1986; Markus & Kitayama, 1991). We hope that our review has provided a foundation upon which such future theory and research might be grounded.

Acknowledgements—The authors gratefully acknowledge the helpful comments of Anita Brown, Susan Campbell, Richard Moreland, Michael Pogue-Geile, Peter Salovey, Danny Shaw, and anonymous reviewers on a previous version of the manuscript.

REFERENCES

- Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). The hopelessness theory of depression: A theory-based subtype of depression. *Psychological Review*, *96*, 358-372.
- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87*, 49-74.
- Alloy, L. B., & Clements, C. M. (1992). Illusion of control: Invulnerability to negative affect and depressive symptoms after laboratory and natural stressors. *Journal of Abnormal Psychology*, *101*, 234-245.
- Altman, J. H., & Wittenborn, J. R. (1980). Depression prone personality in women. *Journal of Abnormal Psychology*, *89*, 303-308.
- Arieti, S., & Bemporad, J. R. (1978). *Severe and mild depression: The psychotherapeutic approach*. New York: Basic Books.
- Arieti, S., & Bemporad, J. R. (1980). The psychological organization of depression. *American Journal of Psychiatry*, *137*, 1360-1365.
- Barnett, P. A., & Gotlib, I. H. (1988). Psychosocial functioning and depression: Distinguishing among antecedents, concomitants, and consequences. *Psychological Bulletin*, *104*, 97-126.
- Barnett, P. A., & Gotlib, I. H. (1990). Cognitive vulnerability to depressive symptoms among men and women. *Cognitive Therapy and Research*, *14*, 47-61.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Baumeister, R. F. (1987). How the self became a problem: A psychological review of historical research. *Journal of Personality and Social Psychology*, *52*, 163-176.
- Baumgardner, A. H. (1990). To know oneself is to like oneself: Self-certainty and self-affect. *Journal of Personality and Social Psychology*, *58*, 1062-1072.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Hoeber.

- Beck, A. T. (1983). Cognitive therapy of depression: New perspectives. In P. J. Clayton & J. E. Barrett (Eds.), *Treatment of depression: Old controversies and new approaches* (pp. 265-284). New York: Raven Press.
- Becker, E. (1971). *The birth and death of meaning: An interdisciplinary perspective of the problem of man*. New York: Free Press.
- Becker, E. (1973). *The denial of death*. New York: Free Press.
- Becker, J. (1979). Vulnerable self-esteem as a predisposing factor in depressive disorders. In R. A. Depue (Ed.), *The psychobiology of the depressive disorders: Implications for the effects of stress* (pp. 317-334). New York: Academic Press.
- Bibring, E. (1953). The mechanism of depression. In P. Greenacre (Eds.), *Affective disorders* (pp. 13-48). New York: International Universities Press.
- Blaney, P. H. (1977). Contemporary theories of depression: Critique and comparison. *Journal of Abnormal Psychology*, **86**, 203-223.
- Blatt, S., Quinlan, D. M., Chevron, E. S., McDonald, C., & Zuroff, D. (1982). Dependency and self-criticism: Psychological dimensions of depression. *Journal of Consulting and Clinical Psychology*, **50**, 113-124.
- Blatt, S. J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. *Clinical Psychology Review*, **12**, 47-91.
- Bower, G. (1981). Mood and memory. *American Psychologist*, **36**, 129-148.
- Brown, G. W. (1986). Stressor, vulnerability and depression: A question of replication. *Psychological Medicine*, **16**, 739-744.
- Brown, G. W., Andrews, B., Bifulco, A., & Veiel, H. (1990). Self-esteem and depression. 1. Measurement issues and prediction of onset. *Social Psychiatry and Psychiatric Epidemiology*, **25**, 200-209.
- Brown, G. W., Andrews, B., Harris, T., Adler, Z., & Bridge, L. (1986). Social support, self-esteem and depression. *Psychological Medicine*, **16**, 813-831.
- Brown, G. W., Bifulco, A., & Andrews, B. (1990a). Self-esteem and depression. 3. Aetiological issues. *Social Psychiatry and Psychiatric Epidemiology*, **25**, 235-243.
- Brown, G. W., Bifulco, A., & Andrews, B. (1990b). Self-esteem and depression. 4. Effect on course and recovery. *Social Psychiatry and Psychiatric Epidemiology*, **25**, 244-249.
- Brown, G. W., Bifulco, A., Harris, T., & Bridge, L. (1986). Life stress, chronic subclinical symptoms and vulnerability to clinical depression. *Journal of Affective Disorders*, **11**, 1-19.
- Brown, G. W., & Harris, T. O. (1978). *Social origins of depression*. New York: Free Press.
- Brown, J. D., & Mankowski, T. A. (1993). Self-esteem, mood, and self-evaluation: Changes in the way you see you. *Journal of Personality and Social Psychology*, **64**, 421-430.
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, **59**, 538-549.
- Carver, C. S., & Ganellen, R. J. (1983). Depression and the components of self-punitiveness: High standards, self-criticism, and overgeneralization. *Journal of Abnormal Psychology*, **92**, 330-337.
- Chodoff, P. (1972). The depressive personality. *Archives of General Psychiatry*, **27**, 666-673.
- Cofer, D. H., & Wittenborn, J. R. (1980). Personality characteristics of formerly depressed women. *Journal of Abnormal Psychology*, **89**, 309-314.
- Coyne, J. C., & Godlib, I. H. (1983). The role of cognition in depression: A critical appraisal. *Psychological Bulletin*, **94**, 472-505.
- Coyne, J. C., & Godlib, I. H. (1986). Studying the role of cognition in depression: Well-trodden paths and cul-de-sacs. *Cognitive Therapy and Research*, **10**, 695-705.
- Dance, K. A., & Kuiper, N. A. (1987). Self-schemata, social roles, and a self-worth contingency model of depression. *Motivation and Emotion*, **11**, 251-268.
- Davis, H. (1979a). Self-reference and the encoding of personal information in depression. *Cognitive Therapy and Research*, **3**, 97-110.
- Davis, H. (1979b). The self-schema and subjective organization of personal information in depression. *Cognitive Therapy and Research*, **3**, 415-425.
- Davis, I. V., & Unruh, W. R. (1981). The development of the self-schema in adult depression. *Journal of Abnormal Psychology*, **90**, 125-133.
- DeLongis, A., Folkman, S., Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, **54**, 486-495.
- Dent, J., & Teasdale, J. D. (1988). Negative cognition and the persistence of depression. *Journal of Abnormal Psychology*, **97**, 29-34.
- Depue, R. A., & Monroe, S. M. (1986). Conceptualization and measurement of human disorder in life stress research: The problem of chronic disturbance. *Psychological Bulletin*, **99**, 36-51.
- Derry, P. A., & Kuiper, N. A. (1981). Schematic processing and self-reference in clinical depression. *Journal of Abnormal Psychology*, **90**, 286-297.

- Deutsch, F. M., Kroll, J. F., Weible, A. L., Letourneau, L. A., & Goss, R. L. (1988). Spontaneous trait generation: A new method for identifying self-schemas. *Journal of Personality*, 56, 327-354.
- Donahue, E. M., Robins, R. W., Roberts, B. W., & John, O. P. (1993). The divided self: Concurrent and longitudinal effects of psychological adjustment and social roles on self-concept differentiation. *Journal of Personality and Social Psychology*, 64, 834-846.
- Epstein, S. (1983). A research paradigm for the study of personality and emotions. In M. M. Page (Eds.), *Personality-current theory and research: 1982 Nebraska Symposium on Motivation* (pp. 91-154). Lincoln: University of Nebraska Press.
- Fenichel, O. (1945). *Psychoanalytic theory of neurosis*. New York: Norton.
- Freud, S. (1986). Mourning and melancholia. In J. Coyne (Ed.), *Essential papers on depression* (pp. 48-63). New York: New York University Press. (Original work published 1917)
- Gold, J. R. (1990). The integration of psychoanalytic, cognitive, and interpersonal approaches in the psychotherapy of borderline and narcissistic disorders. *Journal of Integrative and Eclectic Psychotherapy*, 9, 49-68.
- Golin, S., & Terrell, F. (1977). Motivational and associative aspects of mild depression in skill and chance tasks. *Journal of Abnormal Behavior*, 86, 389-401.
- Gotlib, I. H., & Cane, D. B. (1987). Construct accessibility and clinical depression: A longitudinal investigation. *Journal of Abnormal Psychology*, 96, 199-204.
- Haaga, D. A. F., Dyck, M. J., Ernst, D. (1991). Empirical status of cognitive theory of depression. *Psychological Bulletin*, 110, 215-236.
- Hammen, C., Marks, T., deMayo, R., & Mayol, A. (1985). Self-schemas and risk for depression: A prospective study. *Journal of Personality and Social Psychology*, 49, 1147-1159.
- Hammen, C., Marks, T., Mayol, A., deMayo, R. (1985). Depressive self-schemas, life stress, and vulnerability to depression. *Journal of Abnormal Psychology*, 94, 308-319.
- Hartlage, S. (1990). *Automatic processing of attributional inferences in depressed and cognitively depression-prone individuals*. Unpublished dissertation, Northwestern University, Evanston, IL.
- Hartlage, S., & Alloy, L. B. (1992). *Depression, attributional vulnerability to depression, and automatic processing of attributional inferences*. Manuscript submitted for publication.
- Hartlage, S., Alloy, L. B., Vazquez, C. V., & Dykman, B. M. (1993). Automatic and effortful processing in depression. *Psychological Bulletin*, 113, 247-278.
- Hewitt, P. L. (1989). Validation of a measure of perfectionism. *Journal of Personality Assessment*, 53, 133-144.
- Hewitt, P. L., & Dyck, D. G. (1986). Perfectionism, stress, and vulnerability to depression. *Cognitive Therapy and Research*, 10, 137-142.
- Hewitt, P. L., & Flett, G. L. (1991). Dimensions of perfectionism in unipolar depression. *Journal of Abnormal Psychology*, 100, 98-101.
- Hewitt, P. L., & Genest, M. (1990). The ideal self: Schematic processing of perfectionistic content in dysphoric university students. *Journal of Personality and Social Psychology*, 59, 802-808.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319-340.
- Hoelter, J. W. (1985a). A structural theory of personal consistency. *Social Psychology Quarterly*, 48, 118-129.
- Hoelter, J. W. (1985b). The structure of self-conception: Conceptualization and measurement. *Journal of Personality and Social Psychology*, 49, 1329-1407.
- Hokanson, J. E., Rubert, M. P., Welker, R. A., Hollander, G. R., & Hedeon, C. (1989). Interpersonal concomitants and antecedents of depression among college students. *Journal of Abnormal Psychology*, 98, 209-217.
- Horowitz, M. J. (Ed.). (1991). *Person schemas and maladaptive interpersonal patterns*. Chicago: University of Chicago Press.
- Hyland, M. E. (1987). Control theory interpretation of psychological mechanisms of depression: Comparison and integration of several theories. *Psychological Bulletin*, 102, 109-121.
- Ingham, J. G., Kreitman, N. B., Miller, P. M., Sashidharan, S. P., & Surtess, P. G. (1987). Self-appraisal, anxiety and depression in women: A prospective enquiry. *British Journal of Psychiatry*, 151, 643-651.
- Ingram, R. E. (1984). Toward an information-processing analysis of depression. *Cognitive Therapy and Research*, 8, 443-478.
- Jacobson, E. (1975). The regulation of self-esteem. In E. J. Anthony & T. Benedek (Eds.), *Depression and human existence* (pp. 169-181). Boston: Little, Brown.
- James, W. (1948). *Psychology*. New York: World. (Original work published 1890)
- Johnson, M. H., & Magaro, P. A. (1987). Effects of mood and severity on memory processes in depression and mania. *Psychological Bulletin*, 101, 28-40.
- Kernis, M. H., Brockner, J., & Frankel, B. S. (1989). Self-esteem and reactions to failure: The mediating role of overgeneralization. *Journal of Personality and Social Psychology*, 57, 707-714.
- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology*, 56, 1013-1022.

- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1992). Stability of self-esteem: Assessment, correlates, and excuse making. *Journal of Personality*, 60, 621-644.
- Kleinman, A., & Good, B. (Eds.). (1986). *Culture and depression*. Berkeley: University of California Press.
- Krantz, D. S., & Manuck, S. B. (1984). Acute psychophysiological reactivity and risk for cardiovascular disease: A review and methodologic critique. *Psychological Bulletin*, 96, 435-464.
- Kuiper, N. A., & Derry, P. A. (1982). Depressed and nondepressed content self-reference in mild depressives. *Journal of Personality*, 50, 67-80.
- Kuiper, N. A., & Olinger, L. J. (1986). Dysfunctional attitudes and a self-worth contingency model of depression. *Advances in Cognitive-Behavioral Research and Therapy*, 5, 115-142.
- Kuiper, N. A., Olinger, L. J., MacDonald, M. R., & Shaw, B. F. (1985). Self-schema processing of depressed and nondepressed content: The effects of vulnerability to depression. *Social Cognition*, 3, 77-93.
- Kuiper, N. A., Olinger, L. J., & Martin, R. A. (1988). Dysfunctional attitudes, stress, and negative emotion. *Cognitive Therapy and Research*, 12, 533-547.
- Larsen, R. J. (1987). The stability of mood variability: A spectral analytic approach to daily mood assessments. *Journal of Personality and Social Psychology*, 52, 1195-1204.
- Lewinsohn, P. M., Hoberman, H. M., & Rosenbaum, M. (1988). A prospective study of risk factors for unipolar depression. *Journal of Abnormal Psychology*, 97, 251-264.
- Lewinsohn, P. M., Steinmetz, J. L., Larson, D. W., & Franklin, J. (1981). Depression-related cognitions: Antecedent or consequence? *Journal of Abnormal Psychology*, 90, 213-219.
- Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all your eggs in one cognitive basket. *Social Cognition*, 3, 94-120.
- Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology*, 52, 663-676.
- MacDonald, M. R., Kuiper, N. A., & Olinger, L. J. (1985). Vulnerability to depression, mild depression, and degree of self-schema consolidation. *Motivation and Emotion*, 9, 369-379.
- Mandler, G. (1984). *Mind and body: Psychology of emotion and stress*. New York: Norton.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63-78.
- Markus, H., & Kitayama, S. (1991). Culture and self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969.
- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299-337.
- McQuaid, J. R., Monroe, S. M., Roberts, J. E., Johnson, S. L., Garamoni, G. L., Kupfer, D. J., & Frank, E. (1992). Toward the standardization of life stress assessment: Definitional discrepancies and inconsistencies in methods. *Stress Medicine*, 8, 47-56.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Metalsky, G. I., Halberstadt, L. J., & Abramson, L. Y. (1987). Vulnerability to depressive mood reactions: Toward a more powerful test of the diathesis-stress causal mediation components of the reformulated theory of depression. *Journal of Personality and Social Psychology*, 52, 386-393.
- Miller, P. M., Kreitman, N. B., Ingham, J. G., & Sashidharan, S. P. (1989). Self-esteem, life stress and psychiatric disorder. *Journal of Affective Disorders*, 17, 65-75.
- Miranda, J., & Persons, J. B. (1988). Dysfunctional attitudes are mood-state dependent. *Journal of Abnormal Psychology*, 97, 76-79.
- Miranda, J., Persons, J. B., & Byers, C. N. (1990). Endorsement of dysfunctional beliefs depends on current mood state. *Journal of Abnormal Psychology*, 99, 237-241.
- Mongrain, M., & Zuroff, D. C. (1989). Cognitive vulnerability to depressed affect in dependent and self-critical college women. *Journal of Personality Disorders*, 3, 240-251.
- Monroe, S. M., & Roberts, J. E. (1990). Conceptualizing and measuring life stress: Problems, principles, procedures, progress. *Stress Medicine*, 6, 209-216.
- Monroe, S. M., & Roberts, J. E. (1991). Psychopathology research. In M. Hersen, A. E. Kazdin, & A. S. Bellack (Eds.), *The clinical psychology handbook* (2nd ed.). Elmsford, NY: Pergamon.
- Monroe, S. M., & Steiner, S. C. (1986). Social support and psychopathology: Interrelations with preexisting disorder, stress, and personality. *Journal of Abnormal Psychology*, 95, 29-39.
- Morrow, J., & Nolen-Hoeksema, S. (1990). Effects of responses to depression on the remediation of depressive affect. *Journal of Personality and Social Psychology*, 58, 519-527.
- Myers, J. F., Lynch, P. B., & Bakal, D. A. (1989). Dysthymic and hypomanic effects associated with depressive illness and recovery. *Cognitive Therapy and Research*, 13, 195-209.
- Nietzel, M. T., & Harris, M. J. (1990). Relationship of dependency and achievement/autonomy to depression. *Clinical Psychology Review*, 10, 279-297.

- Nolen-Hoeksema, S. (1987). Sex differences in depression: Evidence and theory. *Psychological Bulletin*, 101, 259-282.
- Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: The 1989 Loma Prieta earthquake. *Journal of Personality and Social Psychology*, 61, 115-121.
- Oatley, K., & Bolton, W. (1985). A social-cognitive theory of depression in reaction to life events. *Psychological Review*, 92, 372-388.
- Olinger, L. J., Kuiper, N. A., & Shaw, B. F. (1987). Dysfunctional attitudes and stressful life events: An interactive model of depression. *Cognitive Therapy and Research*, 11, 25-40.
- Pyszczynski, T., & Greenberg, J. (1987). Self-regulatory perseveration and the depressive self-focusing style: A self-awareness theory of reactive depression. *Psychological Bulletin*, 102, 122-138.
- Rado, S. (1928). The problem of melancholia. *International Journal of Psychoanalysis*, 9, 420-438.
- Rado, S. (1951). Psychodynamics of depression from an etiologic point of view. *Psychosomatic Medicine*, 13, 51-55.
- Riskind, J. H., & Rholes, W. S. (1984). Cognitive accessibility and capacity of cognitions to predict future depression: A theoretical note. *Cognitive Therapy and Research*, 8, 1-12.
- Roberts, J. E., & Monroe, S. M. (1992). Vulnerable self-esteem and depressive symptoms: Prospective data comparing three alternative conceptualizations. *Journal of Personality and Social Psychology*, 62, 804-812.
- Rogers, C. R. (1961). *On becoming a person*. Boston: Houghton Mifflin.
- Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology*, 35, 677-688.
- Rush, A. J., Weissenburger, J., & Eaves, G. (1986). Do thinking patterns predict depressive symptoms? *Cognitive Therapy and Research*, 10, 225-236.
- Safran, J. D., & Segal, Z. V. (1990). *Interpersonal process in cognitive therapy*. New York: Basic Books.
- Segal, Z. V. (1988). Appraisal of the self-schema construct in cognitive models of depression. *Psychological Bulletin*, 103, 147-162.
- Simons, A. D., Murphy, G. E., Levine, J. L., & Wetzel, R. D. (1986). Cognitive therapy and pharmacotherapy for depression: Sustained improvement over one year. *Archives of General Psychiatry*, 43, 43-48.
- Steele, C. M. (1990, August 11). *Protecting the self: Implications for social psychological theory and minority achievement*. Paper presented at the meeting of the American Psychological Association, Boston.
- Steinem, G. (1992). *Revolution from within: A book of self-esteem*. Boston: Little, Brown.
- Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of Abnormal Psychology*, 98, 14-22.
- Strauman, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology*, 53, 1004-1014.
- Swallow, S. R., & Kuiper, N. A. (1988). Social comparison and negative self-evaluations: An application to depression. *Clinical Psychology Review*, 8, 55-76.
- Teasdale, J. D. (1983). Negative thinking in depression: Cause, effect, or reciprocal relationship? *Advances in Behaviour and Research Therapy*, 5, 3-25.
- Teasdale, J. D. (1988). Cognitive vulnerability to persistent depression. *Cognition and Emotion*, 2, 247-274.
- Teasdale, J. D., & Dent, J. (1987). Cognitive vulnerability to depression: An investigation of two hypotheses. *British Journal of Clinical Psychology*, 26, 113-126.
- Thoits, P. A. (1983). Multiple identities and psychological well being: A reformulation and test of the social isolation hypothesis. *American Sociological Review*, 48, 174-187.
- Watson, D., & Clark, L. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, 96, 465-490.
- Wenzlaff, R. M., & Grozier, S. A. (1988). Depression and the magnification of failure. *Journal of Abnormal Psychology*, 97, 90-93.
- Williams, J. M. G., Healy, D., Teasdale, J. D., White, W., & Paykel, E. S. (1990). Dysfunctional attitudes and vulnerability to persistent depression. *Psychological Medicine*, 20, 375-381.
- Wise, E. H., & Barnes, D. R. (1986). The relationship among life events, dysfunctional attitudes, and depression. *Cognitive Therapy and Research*, 10, 257-266.

Received February 1, 1992

Accepted November 17, 1993