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The relationship of early parental loss and later stressful life events to the onset of depression

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THE RELATIONSHIP OF EARLY PARENTAL LOSS AND LATER STRESSFUL LIFE EVENTS TO THE ONSET OF DEPRESSION

A Thesis
Presented to
The Faculty of the Department of Psychology
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree of Master of Arts

by
Mary Burch
1981
APPROVAL SHEET

This thesis is submitted in partial fulfillment of
the requirements for the degree of

Master of Arts

Mary Burch
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Approved, May, 1981

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ABSTRACT

Both early childhood loss of a parent and recent life events have been implicated in the development of depression. Beck's cognitive theory of depression suggests that there may be an interaction between loss and an accumulation of life events, which mediated by cognitive schemas, leads to the development of depression. The major focus of this research was to test several hypotheses pertaining to these cognitions and to test the hypothesis that there is an interaction between early loss and life events.

Questionnaires inquiring about early loss, recent life events, attributions of causality and responsibility for these events, and desirability of the events, as well as the Beck Depression Inventory and Rotter's Internal-External Locus of Control scale were completed by 91 inpatient alcoholics. Several definitions of loss, life events, and periods of time for the occurrence of the events were investigated. Multiple regression analyses for the three best predicting equations were reported. The only definition of loss that had any effect on depression scores was death of a parent. Divorce or separation of the parents, and separation from the parent for at least 3 months, had no significant effect on depression scores. Frequency counts of life events for the period of time 6-12 months before hospitalization were the best predictors among the life event measures.

Contrary to expectations, persons with and without an early loss did not differ in the percentage of events that they rated as undesirable or in attributions of causality and responsibility for events. Suggestions for further testing of attributions of causality and responsibility for undesirable events were made.

Although a significant interaction between early loss and life events was found, the majority of the depressed subjects had not experienced such a loss. There was a significantly greater number of undesirable events reported by the depressed group compared with the non-depressed group. Conversely, persons with an early loss reported significantly fewer undesirable life events than persons without an early loss. On the basis of these findings, a suggestion was made for the existence of two sub-groups of depressives: one with a history of early loss, who become depressed in response to several life events; the second consisting of persons who develop depressive symptomatology following a number of undesirable life events.

Early loss is most likely important in the development of a small number of depressions. In addition, the relationship between loss, life events, and depression is extremely complex, requiring that care be taken when defining loss and life events for research purposes.
THE RELATIONSHIP OF EARLY PARENTAL LOSS AND LATER STRESSFUL LIFE EVENTS TO THE ONSET OF DEPRESSION
INTRODUCTION

Most persons will experience many different events, such as marriage, divorce, birth of a child, death of family members, and changes in living and working conditions during their lifetime. Each of these events may be considered stressful in its own right. The stressfulness of undesirable events such as divorce is generally accepted, but even those events that are considered desirable (such as marriage) may require considerable adjustment, thus representing a potential source of stress. Since the introduction of a method for quantifying the stress represented by the clustering of life events (Homes & Rahe, 1967) there has been a rapid accumulation of knowledge concerning the effects of life events. Some of this research on life events implicates them in the etiology of various medical and psychiatric disorders, such as depression.

Depression historically has been considered primarily a disorder of mood. Currently there is some disagreement as to whether mood is the primary determinant of a depressive disorder or merely a symptom of the disorder. The exact definition of depression varies. In fact, the word depression is used (often interchangeably) for the symptom of sad affect, as well as for the clinical syndrome. Generally speaking, the syndrome is distinguished from normal fluctuations in mood by the presence of somatic symptoms (Akiskal & McKinney, 1975; Rehm & O'Hara, 1979). The following definition of depression taken from the recently published (1980) Diagnostic and Statistical Manual of Mental Disorders
Life Events and Depression

(DSM-III) indicates the range and severity of symptoms that are used to classify a person as depressed:

dysphoric mood or loss of interest or pleasure in all or almost all usual activities and pastimes...[and] At least four of the following symptoms...

1. poor appetite or significant weight loss...or increased appetite or significant weight gain...

2. insomnia or hypersomnia

3. psychomotor agitation or retardation...

4. loss of interest or pleasure in usual activities, or decrease in sexual drive not limited to a period when delusional or hallucinating...

5. loss of energy; fatigue

6. feelings of worthlessness, self-reproach, or excessive or inappropriate guilt...

7. complaints or evidence of diminished ability to think or concentrate...

8. recurrent thoughts of death, suicidal ideation, wishes to be dead, or suicide attempt (pp. 214-215).

In addition, conditions due to bereavement and any schizophrenic or organic mental disorder are excluded. This definition virtually invites subjective evaluation by the clinician as to whether the severity of a particular symptom warrants inclusion.

Although DSM-III leans heavily toward the definition of depression as being on a continuum with normal sad affect, many investigators would not agree. Akiskal and McKinney (1975) argue that the term melancholia...
should be used for depression which includes somatic symptomatology. They suggest that the labeling of all such melancholic states as "depression", implying that they represent accentuation of normal unhappiness, may prevent the use of necessary and appropriate pharmacological interventions.

Within the general classification of depression there has been the tendency for classification along psychotic-neurotic or endogenous-reactive (or exogenous) dimensions, but the usefulness of these classifications has been questioned. Kendell (1976) states that confusion has resulted from the different meanings attributed to these terms. The terms "neurotic" and "psychotic" are often used to distinguish between severity of symptomatology, "psychotic" often referring to the presence of hallucinations or delusions. Kendell points out that many professionals regard "psychotic" and "endogenous" as synonymous, denoting an acute depression with somatic symptomatology. The terms "neurotic" and "reactive" are also often considered synonymous, referring to a milder depression often accompanied by anxiety and self-pity. Several other researchers (Akiskal, Bitar, Puzantian, Rosenthal, & Walker, 1978; Thompson & Hendrie, 1972) have found that classification of depression according to existing criteria (before DSM-III) yielded very heterogeneous populations that failed to differ along such attributes as precipitating stress or family history of affective disorder. Whether the relative preciseness of the criteria for depression in DSM-III will result in more homogeneous populations has yet to be determined.

Akiskal and his colleagues suggest that the terms "neurosis" and "psychosis" have outlived their historical usefulness and should be discarded. They suggest that depression should be classified according
to whether the affective component is the primary disorder or secondary to other psychiatric symptomatology, which would result in groups with identical depressive symptoms. They suggest that these secondary depressions may represent "subaffective manifestations of unipolar depressions or the residual phase of unipolar depressions which have not remitted fully, or they may accompany lifelong personality disorders and incapacitating nonpsychiatric medical disorders" (1978, p. 765). These findings suggest that to limit one's investigations to one category of depression would run the risk of obscuring any differences in reactions to life events which may cut across diagnostic categories of depression.

The Etiology of Depression

Numerous theories attempt to explain the development of depression. Akiskal and McKinney (1975) offer an excellent review of the most important ones, which emphasize everything from genetic predispositions through psychosocial, cognitive, and behavioral factors, to chemical depletion. The variety of models may be partially attributed to disagreement on what constitutes depression, as well as to the complexity inherent in the study of depression. Two models which are particularly relevant to a study of the effects of life events on depression are the parental loss and cognitive models of depression.

The bonding between the primary caretaker (usually the mother) and the infant has been described in detail by Bowlby (1961). He postulates a set sequence of events following a lengthy separation of the child from the mother figure: protest, despair, and detachment. At first the child is hopeful that the mother will return, strives to bring her back, and demands her return. When the child fails to recover this loss, ambivalence
results, and the child alternates between hope that the mother will return and despair and hopelessness. Eventually, the child becomes detached from the mother figure. Bowlby stresses that this process, common to all kinds of mourning, normally develops slowly. Usually during separations children are reunited with the parental figure before detachment is complete. In pathological mourning the time sequence for the stages is accelerated resulting in early detachment from the parent. Bowlby believes that this abbreviated mourning process leads to later depression. The loss of a significant person was associated with depression by Freud (1953) in his early writing *Mourning and Melancholia*. Depression (or Melancholia) was seen as following much the same course as bereavement, with the exception that in depression the lost object was not consciously recognized.

Beck's cognitive model of depression (1971, 1972, 1974) is related to Bowlby's model. Beck believes that the "depression prone person may become sensitized by certain unfavorable types of life situations such as the loss of a parent or chronic rejection by his peers...These traumatic experiences cause the person to overreact to analogous conditions later in life" (1974, p. 7).

During the early stages of the child's life the development of a number of concepts and attitudes, which are drawn from the child's experience takes place. These concepts or structures may be based on reality allowing for healthy psychological adjustment or may be based on misconceptions producing a vulnerability to later pathology. These cognitive structures are called "schemas" (Beck, 1971; Piaget, 1967) and are a permanent part of the cognitive organization, in contrast to cognitive processes, which are seen as being in transition. These structures determine how
the child interprets stimuli in the environment. They organize the different aspects of the environment into a coherent pattern that determines how the person will react in different situations. Each person develops a number of schemas concerning different aspects of the environment and the self. Many of these schemas are inactive at any given time and therefore have no effect on thought processes. When conditions in the environment correspond to the content of a dominant schema, it becomes activated.

During development a specific content becomes associated with an affect. Some of these cognition-affect associations are unique to the individual or society, others may be universal. In certain psychopathological conditions, the reaction to an external event may be determined primarily by the person’s dominant schema and its related content and not by reality. This in turn evokes the associated affective reaction.

For depression-prone persons one of the dominant ways of structuring the environment may be determined by the loss of or separation from a parent or significant person during childhood. The more attached the person was to the lost person and the more positive was the relationship, the greater will be the sense of loss. The more severe the feeling of loss, the greater will be the likelihood of loss being incorporated into the cognitive organization. Loss typically leads to negative feelings which become incorporated into the content of the schema, coloring the person's view of the self, the world, and the future. Thus the depressed person has a low self-concept, in the extreme case regarding the self as unworthy or as a failure. These negative views lead to unpleasant feelings, such as sadness. Once the connection is made between the cognition and
the affect, the unpleasant affect is experienced whenever negative value judgements concerning the self are made.

In accordance with this negative world view, the depression-prone person begins to expect future problems, and experiences them as though they were actually happening. Beck feels that these "negative expectations" lead to the later interpretation of events as negative, again leading to unpleasant affect and feelings of hopelessness. Beck sums up this process nicely:

When all the components of the depressive constellation are activated, a sequence such as the following occurs: The individual interprets an experience as representing a personal defeat or thwarting; he attributes this defeat to some defect in himself; he regards himself as worthless for having this trait; he blames himself for having acquired the trait and dislikes himself for it; and since he regards the trait as an intrinsic part of him, he sees no hope of changing and views the future as devoid of any satisfaction or filled with pain (1972, p. 278).

Once the chain has been formed between a certain stimulus and a negative affect, stimuli which are similar to the original stimulus may evoke the same affective reaction. By the processes of overgeneralization, selective abstraction, and arbitrary inferences, the depressed person manages to interpret things in the environment as consistent with a negative view of the world. For the depression-prone person, events which objectively do not have a component of loss associated with them may be interpreted as involving a loss, resulting in associated negative affect. Beck suggests that the person may be able to cope with a specific situation,
but when a number of events occur in rapid succession, they may exceed the person's tolerance, resulting in depression. Thus the depression-prone person will tend to have episodes of depression following an accumulation of life events which are likely to be negatively interpreted, interspersed with periods of normal mood.

The current formulation of the "learned helplessness" model of depression, which was originally proposed by Seligman (1975) and reformulated by Abramson, Seligman, and Teasdale (1978), suggests that depression can be understood in terms of attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967). Depression is seen as a subtype of learned helplessness, resulting from the perception of non-contingency between one's actions and events in one's life. Subsequent to the perception of non-contingency, the person makes an attribution about the cause of the event, which determines expectations of future contingencies. This expectation determines the type of deficit as well as its chronicity and generality. Depression is seen as the result of attribution of causality for negative events to global, stable factors within the person. Rotter's (1966) concept of internal-external locus of control of reinforcement refers to the perception of control over reinforcement as residing within or outside of the person, and corresponds to the internal-external attributional dimension in the learned helplessness model.

Several criticisms of the reformulated model of learned helplessness have been made by Wortman and Dintzer (1978). Among the most basic is the question of whether people actually make attributions and whether there is a correspondence between attributions and behavior. They also question whether the attributional dimensions selected by Seligman and his colleagues are the most important ones and suggest that controllability and forseeability
may be other relevant dimensions. In addition, they suggest that factors other than attribution and expectations of future control may influence reactions to uncontrollable outcomes, and criticize the model for not specifying the relationship between the various deficits proposed. When does exposure to lack of control result in helplessness versus facilitated performance, and under what conditions are specific attributions made?

Two additional questions regarding the learned helplessness model come to mind. Why does the attributional style of depression-prone persons differ from that of normal persons; is it due to early experience, to an inherited dispositional trait, or to some other factor? Second, is the attribution of causality for negative events to a global, stable, internal factor a necessary and/or sufficient cause of depression?

Note that there is a distinct similarity between Beck's model of depression and the learned helplessness model. Both models see the depression-prone person as making biased attributions about a negative event to some factor within the person. The major divergence is in the sequence of events and the delineation of cognitive schemas. In the learned helplessness model the person first experiences non-contingent reinforcement, feels helpless, and then begins to search for a cause for the feeling of helplessness. Beck's cognitive model sees the developing child as continuously structuring the world. A negative event during childhood serves to alter this structuring, leading to later misconceptions and interpretations of the world in terms of the original event. The original event in depression is a loss of some type (usually the death of or separation from a parental figure) that happens to be outside the child's control. The perception of control is not central to the child's reaction, however.
Life Events and Depression

There are some data available which support Beck's contention that the loss of a parent in childhood predisposes one to later depression, and that episodes of depression are often precipitated by an accumulation of stressful experiences. In a recent review of the literature dealing with parental loss and depression, Lloyd (1980a) found that the preponderance of evidence supported the concept of loss as a factor predisposing to depression. She concluded that two or three times as many depressed persons have experienced an early parental loss as have control populations. The actual data is less convincing, however, as a review of the most relevant studies will show.

Several researchers have found that depressed persons have a significantly higher rate of parental death during childhood compared with a control population (Beck, Sethi, & Tuthill, 1963; Brown, 1961; Brown, Harris, & Copeland, 1977; Hill & Price, 1967). Barry and Lindemann (1960) discovered a higher rate of maternal death in depressed populations compared with a control group. Paradoxically, Dennehy (1966) found a significantly greater incidence of early maternal death for male depressives, and a significantly greater incidence of paternal death for female depressives when compared with a control group. In addition, it has been shown that depressed persons have a greater percentage of parental deaths in childhood compared with schizophrenics (Roy, 1980). Jacobson, Fasman, and DiMascio (1975) compared depressed inpatients, outpatients, and controls. The inpatients and outpatients had similar early loss patterns, which differed significantly from that of the controls. Gregory (1966) and Hopkinson and Reed (1966) were unable to confirm this association between early parental death and depression, however. Several researchers have
compared other childhood loss events in depressed versus control populations, with varying results. Sethi (1964) found a higher number of separations from parents compared with a control group. Abrahams and Whitlock (1969) and Pitts, Myer, Brooks, and Winokur (1965) in similar studies failed to find such a difference.

The definitions of early loss, as well as the depressed populations and control groups in these studies, varied considerably. This resulted in wide discrepancies in reported rates of early loss. Losses due to death of a parent ranged from 11 to 41 percent, with even greater possible discrepancies when other types of losses are considered. At least one study (Adamson & Schmale, 1962) found a lower rate of loss in a depressed group of patients. Some standardization of the definition of loss, and in the identification of depressed and control subjects is necessary in future research attempts in order to insure accurate comparisons of results.

The types of events which immediately precede the onset of depression have also been studied. Paykel, Prusoff, and Myers (1975), as well as others (Beck & Worthen, 1972; Cadoret, Winokur, Dorzab, & Baker, 1972; Frost & Clayton, 1977; Paykel, Myers, Dienelt, Klerman, Lindenthal, & Pepper, 1969) have found a significantly higher number of exits (changes in the social field) and/or losses in depressed populations when compared with control populations. A greater number of losses have been shown to occur in unipolar depressives compared with bipolar depressives or schizophrenics (Clancy, Crowe, Winokur, & Morrison, 1973). In a related study Jacobs, Prusoff, and Paykel (1974) found both a higher number of exits and undesirable events in depressives compared with schizophrenics.
A study by Paykel, Prusoff, and Myers (1975) found a trend for depressives to encounter more undesirable events than the general population, although the difference was not statistically significant. Similarly, Grosscup and Lewinsohn (1980) found moderate positive correlations (.33 to .42) between the rate of occurrence of aversive events and daily variations in mood level. In addition, the occurrence of aversive events was shown to lower the enjoyment of pleasant events, without affecting their rate of occurrence (Grosscup, & Lewinsohn, 1980).

Since according to Beck's model persons who are predisposed to depression tend to interpret events in idiosyncratic ways, it is also interesting to note that a number of investigators have discovered an association between frequencies of all categories of life events and depression (Beck, & Worthen, 1972; Brown, Sklar, Harris, & Birley, 1973; Clancy, Crowe, Winokur, & Morrison, 1973; Fontana, Marcus, Noel, & Rakusin, 1972; Jacobs, Prusoff, & Paykel, 1974; Uhlenhuth, & Paykel, 1973). The results of two studies (Cadoret, Winokur, Dorzab, & Baker, 1972; Hudgens, Morrison, & Barchha, 1967), did not support the position that life events play a role in the precipitation of depression. Lloyd (1980b) suggests that these discrepancies can be explained by several factors: the type of control group selected, the type of events recorded, and the time span investigated.

Although the evidence is not totally conclusive, the present investigator agrees with Lloyd (1980a, 1980b) that the majority of research does support the inclusion of early loss and later precipitating events as possible factors in the development of depression. As earlier argued in reference to research on loss and depression, some standardization of control groups and type of events selected, as well as the time span
investigated, is urgently needed in order to make accurate comparisons of research results.

In order to better understand depression, it is necessary to clarify the relationship between early loss, current life events, and depression. One likely explanation of such a relationship would involve cognitive processes. Both Beck's and Seligman's models meet this criterion. Seligman fails to propose a specific relationship between early parental loss, later stressful life events, and depression, however, while Beck specifically proposes an interaction between early parental loss and later life events which leads to later depression. A major goal of the present study is to test Beck's hypothesis that persons who sustain an early loss later become depressed in response to a number of stressful life events. Only one other investigator (Sethi, 1964) has attempted to do this. Although he found a significantly greater number of early losses, as well as later precipitating events in the depressed group, he failed to discover any interaction between early loss and later life events. Given the number of discrepant results of other studies, it is possible that such an interaction was missed because of inaccuracies in the definition of early loss or later life events, or in the period of time over which life events were evaluated. Because of this possibility, a number of definitions of early loss, later life events, and time periods for the collection of these events will be evaluated. In addition, several other aspects of Beck's model will be investigated. The following hypotheses are proposed:

1) Persons who have encountered an early loss will become depressed in response to a number of life events. Specifically, there will
Life Events and Depression

be an interaction between early loss and later events not accounted for by the additive effects of either event occurring alone.

2) Persons who have sustained the loss of a parent during childhood will score significantly higher on an objective inventory designed to measure depressive symptomatology compared with persons without an early loss.

3) Persons who have sustained an early childhood loss will perceive a greater percentage of life events as undesirable compared with persons without an early loss.

4) Consistent with Beck’s concept of self-blame, persons who have sustained an early loss will feel responsible for a greater percentage of events which occur to them compared with persons without an early loss.

Previous research has primarily focused on measuring the percentage of persons with an early loss or counting the number of life events in depressed versus non-depressed populations. The thrust of this investigation was to test specific hypotheses comparing persons with and without early loss experiences. The main intent was not to prove that depressed persons suffer more losses or more life events, but to show that persons who experience an early loss react differently to life events than do persons without an early loss experience. In order to accomplish this, some way of assessing an interaction was needed. A multiple regression analysis was chosen for this purpose, as it has the capabilities of assessing interaction independently of the effects of each variable alone.

Practical considerations made the identification of a population with a relatively high rate of depression imperative, as well as made the
testing of subjects in small groups preferable. Several populations were readily available: a college undergraduate population, an inpatient psychiatric population, and an inpatient alcoholic population. A pre-test done to determine the prevalence of depression in the college population indicated restricted variability in depression scores on the BDI. For this reason the college population was not considered to be suitable for a study of depression. The limited availability of persons with a primary diagnosis of depression in the psychiatric population and the potential heterogeneity of a psychiatric population displaying secondary depressive symptoms resulted in the choice of the alcoholic population. In addition, the high admission rate of alcoholics made the administration of the questionnaires in small groups feasible. Aside from practical reasons, there were conceptual reasons for choosing the alcoholic population. Although the reported rate of depression in alcoholics varies considerably, it is generally considered to be relatively high (Keeler, Taylor, & Miller, 1979; Weissman & Myers, 1980; Weissman, Pottenger, & Kleber, 1977). There is additional evidence that the incidence of depression is higher in alcoholics who seek treatment compared with those who do not (Woodruff, Guze, & Clayton, 1973). Gibson's and Becker's (1980) finding that depressed alcoholics' and depressed non-alcoholics' responses to the Beck Depression Inventory were similar suggests that depression in alcoholics may have relevance for other populations of depressed persons.

The search for causes of depression may play an important role in the decision on treatment modality. This study should be considered a preliminary step in defining the relationship between predisposing and
precipitating factors in depression. In addition, the results were expected
to provide some confirming or disconfirming evidence of how cognitive
processes might play a mediating role in the development of depression.
The understanding of underlying cognitions is necessary in order to be
able to alter cognitive sets which may lead to depression. This under-
standing could ultimately result in the development of new and better
treatment methods for depression.
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Method

Subjects

Ninety one patients (78 males and 13 females) admitted to a state psychiatric hospital for treatment of alcoholism served as subjects. All subjects were volunteers from consecutive admissions to the treatment unit, and represented 45 percent of all admissions to the unit over approximately two and one-half months time. The non-completion rate is high for several reasons. In addition to outright refusals, patients who were unable to read or understand the instructions were excluded from participation. The unit also serves as a detoxification center, and many of these patients leave within several days of admission. Often these persons left before they could be asked to participate in the study. Although both male and female patients were asked to participate, the number of female subjects is low because of the low admission rate of females to the unit. The average age of the subjects was 36.9 years with a standard deviation of 11.06 years. The majority of the subjects were unskilled or semiskilled workers and 85 percent fell into the two lowest social class categories based on Hollingshead's Two Factor Index of Social Position (Miller, 1977). Thirteen of the subjects (14 percent) had experienced the death of a parent and 33 of the subjects had experienced a loss other than or in addition to the death of a parent during childhood.

Information on early losses, current life events, depression, age, and socioeconomic status was complete for all 91 subjects. Data on life
event desirability, and attribution of causality and responsibility were unavailable for ten subjects who had no life events during the preceding 12 months. In addition, data on attribution of causality and responsibility for five subjects and on event desirability for four subjects was not obtained because of refusal to complete the questions or incorrect completion of the questions. Results for attribution of causality and responsibility are based on data from 76 subjects and results for event desirability are based on data from 77 subjects. Results on internal-external locus of control are based on data from 85 subjects who completed the Rotter I-E scale. Six subjects did not fill out the scale because they refused or through oversight.

Materials

The following questionnaires were presented to each person participating in the study (see Appendixes):

1) A data sheet requesting the following information: age; sex; income; educational level; the loss of a parent through death, divorce, separation of the parents, or separation from a parent for a period of at least three months; and the age of the subject at the time of the loss. In addition, the following information was taken from the patient's chart: primary and secondary diagnoses, administration of any psychotropic drugs, and occupation.

2) The Schedule of Recent Experiences (SRE) developed by Holmes and Rahe (1967). This questionnaire consists of 43 common life events pertaining to major areas of American life. The subject is asked which events have occurred during a specific time period. For the purposes of this study, patients were asked to indicate
whether the event occurred in the six weeks prior to hospitalization, between six weeks and six months prior to hospitalization, or between six months and one year prior to hospitalization. Each event has been rated using the technique of magnitude estimation for the average amount of readjustment required (Holmes and Rahe, 1967). Ratings for each event occurring in each different time period were summed in order to obtain a score representing the amount of readjustment required during that particular time period. A simple frequency count of all events occurring in each time period was also used as a measure of recent life events. In order to assess perception of causality and responsibility for events, definitions from a previous study designed to assess responsibility attributions of psychiatric patients (Payne, Shaver, & Shean, 1975) were adopted. Responsibility was defined as "who or what might deserve to be punished or given credit for the event" and causality was defined as "who or what made the event happen". Each subject was asked to choose among three categories: "myself", "another person", or "something else" for causality and responsibility for each event.

3) The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). This scale is designed to measure specific behavioral manifestations of depression. It consists of 21 graded series of self-evaluative statements arranged to reflect a range of severity. Scores range from 0 to 63, from not depressed to severely depressed. This measure of depression was chosen for several reasons. First, the use of a measure developed by the
theorist whose model of depression the study is designed to test lends continuity to the investigation. Consequently, the measure of depression is more likely to correspond to Beck's theoretical construct of depression. In addition, the use of a standardized instrument as opposed to psychiatric diagnoses allows for better reliability of classification, and will aid in replication of the study.

4) Rotter's (1966) Internal-External Locus of Control Scale. This self-report scale is designed to measure perception of control over reinforcement. Scores range from 0 to 23 with 23 representing extreme external locus of control orientation. Because of the close relationship between internal-external locus of control and attribution of causality to factors within or outside of the person, the I-E scale was included as an independent test of causality attribution.

Procedure

Subjects were recruited as soon as possible following admission to the unit and tested in small groups over a period of two and one-half months. Each subject was asked to complete the questionnaires and to give the experimenter permission to obtain information from their files. After the consent form was signed, the subjects were first asked to fill out the data sheet, followed by the SRE. They were then instructed to go back through the list of events to assess responsibility and causality for each event which occurred in the previous 12 months. The sequence of the causality and responsibility questionnaires was counterbalanced to prevent any response sets from biasing the data. Subjects then were asked to indicate whether
each event which had occurred was desirable or undesirable. Following these procedures, each subject filled out the Beck Depression Inventory and the Internal-External Locus of Control Scale.
Results

No a priori assumptions were made as to the best definitions of early loss or later precipitating life events. It was also recognized that the time sequence of the events might be a critical factor. For these reasons, several different definitions of both losses and life events, and several time sequences for the events were investigated, in order to find the best predicting combinations. Multiple regression analyses were performed using these different combinations of definitions. Since the data from this study were collected retrospectively, any causal inferences must be assumed. As previously suggested, however, an argument may be made for different logical sequences of causality. In accordance with this view, the variables were entered into the regression analysis in a predetermined order.

Separate multiple regression analyses were computed for each time period, as well as all time periods combined, using different definitions of loss and measures of life events. For each analysis, loss was entered first, then the life event score, and finally an interaction term for loss and life events together. This ordering was done to control for the effects of early loss on later life events, and the effects of both early loss and later life events alone on any interaction. Thus, interaction effects are due solely to the interaction and not to the effects of loss or life events occurring alone. Age, sex, socioeconomic status (Hollingshead's Two Factor Index of Social Position, Miller, 1977), and
days in hospital (prior to testing) combined did not account for a signif­
icant amount of the variance in depression scores, and were subsequently 
eliminated from final analyses. Life event scores obtained by magnitude 
estimation (Homes, & Rahe, 1967) did not predict as well as the frequency 
counts of life events, therefore, analyses using this measure are not 
reported. Multiple R's and Beta statistics for the best regression analyses 
are found in Table 1. Death of a parent before age 16 and later life events

6 to 12 months prior to hospitalization) alone are not significantly 
related to depression (R = .04). The addition of the interaction term 
increases the Multiple R to .31, F (3,87) = 3.16, p < .05, explaining 
approximately 9 percent of the variance in depression scores. An F-test 
for the interaction term alone is significant, F (1,87) = 9.40, p < .01.

When negative life events over the entire 12 month time period are entered 
into the analysis, the effect of life events alone increases slightly 
(R = .20), but is not significant. The interaction term increases the 
Multiple R to .27, F (3,87) = 2.22, p < .10, explaining approximately 
7 percent of the variance in depression scores. The interaction term 
approaches significance, F (1,87) = 3.20, p < .10. The substitution of 
negative life events occurring in the period 6 to 12 months prior to 
hospitalization in the analysis yields similar results. The Multiple R 
increases (R = .10), but is not significant. Again, with the addition 
of the interaction term, the Multiple R increases, (R = .35), F (3,84) = 
4.00, p < .01, explaining 12 percent of the variance in depression scores. 
Again the interaction term is significant, F (1,84) = p < .01.
### Table 1

Multiple R Coefficients and Beta Statistics for Analyses that Best Predict Beck Depression Scores

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Multiple R</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Death of a parent</td>
<td>.02</td>
<td>- .36</td>
</tr>
<tr>
<td>(B) Life events (6-12 months ago)</td>
<td>.04</td>
<td>- .01</td>
</tr>
<tr>
<td>(C) Interaction of A and B</td>
<td>.31</td>
<td>.46</td>
</tr>
<tr>
<td>(A) Death of a parent</td>
<td>.02</td>
<td>- .21</td>
</tr>
<tr>
<td>(B) Negative Life Events</td>
<td>.20</td>
<td>.15</td>
</tr>
<tr>
<td>(C) Interaction of A and B</td>
<td>.27</td>
<td>.29</td>
</tr>
<tr>
<td>(A) Death of a parent</td>
<td>.02</td>
<td>- .25</td>
</tr>
<tr>
<td>(B) Negative Life Events (6-12 months ago)</td>
<td>.10</td>
<td>.03</td>
</tr>
<tr>
<td>(C) Interaction of A and B</td>
<td>.35</td>
<td>.41</td>
</tr>
</tbody>
</table>
T-tests were used to test for the following reported differences between variable means for the loss versus no-loss and depressed versus non-depressed groups. Since the only loss which had any significant effect on depression scores was the death of a parent, all results reported for loss groups use this definition of loss. There was no significant difference between mean depression scores for the loss and no-loss group. The mean scores for the two groups were nearly identical (12.54 versus 12.91). Subjects with an early loss report significantly fewer undesirable life events compared with subjects without an early loss (3.6 versus 6.2), \( t (25) = -2.57, p < .05 \). In addition, the loss and no-loss groups did not differ significantly in the percentage of life events which were rated as undesirable. In contrast, depressed subjects (scoring 14 or higher on the BDI) report a significantly greater number of undesirable life events compared with non-depressed subjects (7.1 versus 4.9), \( t (85) = 2.07, p < .05 \). This pattern can be clearly seen in Table 2. No significant differences of responsibility and causality for events were found for the loss and no-loss groups, or for the depressed and non-depressed groups. All of the groups attributed responsibility and causality to the majority of the events. From 62 to 69 percent of the events were attributed to themselves, with from 19 to 27 percent attributed to "another person", and from 10 to 15 percent attributed to "something else".

A chi-square analysis for categories of loss by low (0 to 13), medium (14 to 24), and high (25 or higher) BDI scores was not significant, suggesting that the groups are independent.
Table 2

Percentage and Frequencies of Life Events Considered Undesirable by the Loss and No-Loss Groups and Depressed and Non-depressed Groups

<table>
<thead>
<tr>
<th></th>
<th>Percent of Events Considered Negative</th>
<th>Frequency of Negative Events</th>
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</thead>
<tbody>
<tr>
<td>Loss Group</td>
<td>69</td>
<td>3.6</td>
</tr>
<tr>
<td>No-Loss Group</td>
<td>62</td>
<td>6.2</td>
</tr>
<tr>
<td>Depressed Group</td>
<td>68</td>
<td>7.1</td>
</tr>
<tr>
<td>Non-Depressed</td>
<td>60</td>
<td>4.9</td>
</tr>
</tbody>
</table>
Subjects with and without an early loss obtained nearly identical scores on the Rotter I-E scale (8.5 versus 8.6). There was a strong trend, however, for depressed subjects to be more externally controlled than non-depressed subjects (9.5 versus 7.9), $t(83) = 1.84$, $p < .07$. 

The results of this study provide some support for Beck's cognitive theory of depression. Persons who have had an early loss react to later life events by becoming depressed, and this reaction cannot be explained by either loss or life events alone. The occurrence of early loss or several life events alone is not sufficient to induce depression, but when both occur together, the chance of depression increases. In addition, negative events occurring independently of early loss may be associated with the occurrence of depression. In the absence of early loss more negative life events appear to be necessary to induce depression, however. The depressed group reported a significantly greater number of undesirable life events compared with the non-depressed group. These findings suggest the possibility of two sub-groups within the depressed population. One population consists of persons who have had an early loss and then encountered life events which precipitated a depressive episode. The low number of events encountered by the loss group, along with no difference in levels of depression between the loss and no-loss groups, suggests that the loss group may react more intensely to life events. This would be consistent with Beck's ideas of a sensitization to negative aspects of life events. Although it is possible that the loss group merely failed to report all of the life events which occurred, there are no empirical data to support such a conclusion. Retrospective reporting of life events has been shown to be relatively stable over time with a tendency for the least
salient events to be first forgotten (Casey, Masuda, & Holmes, 1967). Reporting of life events has also been shown to be uninfluenced by mood or level of self-esteem (Payne, 1975).

The second sub-group within the depressed group seems to consist of persons who have had a large number of life events, many of which are undesirable. These persons apparently become as depressed as the persons in the loss group. This interpretation suggests that research findings of more negative life events and losses in depressed versus non-depressed groups cannot necessarily be interpreted as supporting Beck's theory.

No support was found for the hypothesis that persons who have experienced an early death of a parent are more depressed than those who have not experienced such a loss. At least in this sample of subjects, there was virtually no difference in mean levels of depression between the two groups. This is likely due to the fact that there is little overlap between the loss and depressed populations. Persons with an early loss made up only a small proportion of the sample of depressed persons.

Persons who have experienced an early loss do not rate a higher percentage of life events as undesirable compared with persons without an early loss. This seems to be a direct contradiction to Beck's concepts of negative expectations and selective abstraction of undesirable qualities of events. Persons with an early loss also do not differ in their attributions of causality and responsibility for life events. Since persons with an early loss did not rate more events as undesirable compared with persons without an early loss, as was expected, a more appropriate test of attribution of responsibility and causality might be to use only undesirable events. This would be more accurate in testing for self-blame,
since guilt and self-blame would be more apt to occur in response to undesirable events.

There was a strong trend for depressed persons to be more externally oriented than non-depressed persons. Depressed persons' scores on the I-E scale still fall in the lower range of possible scores, however, suggesting that they are more internally than externally oriented. This is consistent with the fact that all of the subjects tended to attribute causality and responsibility of events to themselves, rather than someone or something else.

This research was based primarily on comparisons of persons with and without an early childhood loss and only peripherally on comparisons between depressed and non-depressed persons. There is ample evidence from this and other investigations that persons with an early loss make up only a small percentage of the population of depressed persons. Indeed, the results of this study suggest that there are two sub-groups of depressed persons. The sub-group made up of persons with an early loss was by far the smaller of the two groups. Although the limited number of subjects suggests that the phenomenon of an interaction between loss and life events is real, it must be recognized that the phenomenon explains few cases of depression. Only death of a parent had any effect on depression scores, other categories of loss did not. This resulted in an extremely limited sample of persons with a loss. Replication with a larger sample of subjects is needed to confirm these findings.

Although the presence of an interaction between early parental death and life events was confirmed, the relationship between early loss, later life events, and depression, is complex. There seems to be a lag time
Life Events and Depression

of about 6 months between the experiencing of life events and the onset of depression. Of several possible categories of losses, only death of a parent was related to depression. In addition, negative events appear to be independently associated with the development of depression. These qualifications of the effects of early loss and later life events must be taken into account in any further research in this area.
References


Sethi, B. B. Relationship of separation to depression. *Archives of General Psychiatry, 1964, 10*, 486-496.


ever attended alcohol anonymous regularity
before this admission to this hospital? have you

---

4. Parent divorced

---

Father

---

Mother

---

2. Parent separated

---

Father

---

Mother

---

Your age

---

Parent's death or divorce

---

If not check it because of separation

---

Separation for a period of at least three

---

event.

---

Last year of schooling you completed

---

Income

---

Other than any included in the family

---

Your approximate personal income

---

Approximate family income per year

---

Sex

---

Age

---

Please answer the following as accurately as possible.
Please read the following statements. After you have read each statement in a group of statements, pick out the one statement in that group which best describes the way you feel today, that is, right now. Put a check mark beside the statement which describes you the best. Be sure to read all of the statements in each group before making your choice.

A.  ____ I do not feel sad
    ____ I feel blue or sad
    ____ I am blue or sad all the time and I can't snap out of it
    ____ I am so sad or unhappy that it is quite painful
    ____ I am so sad or unhappy that I can't stand it

B.  ____ I am not particularly pessimistic or discouraged about the future
    ____ I feel discouraged about the future
    ____ I feel I have nothing to look forward to
    ____ I feel that I won't ever get over my troubles
    ____ I feel that the future is hopeless and that things cannot improve

C.  ____ I do not feel like a failure
    ____ I feel I have failed more than the average person
    ____ I feel I have accomplished very little that is worthwhile or that means anything
    As I look back on my life all I can see is a lot of failures
    ____ I feel I am a complete failure as a person (parent, husband, wife)

D.  ____ I am not particularly dissatisfied
    ____ I feel bored most of the time
    ____ I don't enjoy things the way I used to
    ____ I don't get satisfaction out of anything any more
    ____ I am dissatisfied with everything

E.  ____ I don't feel particularly guilty
    ____ I feel bad or unworthy a good part of the time
    ____ I feel quite guilty
    ____ I feel bad or unworthy practically all the time now
    ____ I feel as though I am very bad or worthless

F.  ____ I don't feel I am being punished
    ____ I have a feeling that something bad may happen to me
    ____ I feel I am being punished or will be punished
    ____ I feel I deserve to be punished
    ____ I want to be punished

G.  ____ I don't feel disappointed in myself
    ____ I am disappointed in myself
    ____ I don't like myself
    ____ I am disgusted with myself
    ____ I hate myself

H.  ____ I don't feel I am any worse than anybody else
    ____ I am critical of myself for my weaknesses or mistakes
    ____ I blame myself for my faults
    ____ I blame myself for everything bad that happens

I.  ____ I don't have any thoughts of harming myself
    ____ I have thoughts of harming myself but I would not carry them out
    ____ I feel I would be better off dead
    ____ I feel my family would be better off if I were dead
    ____ I have definite plans about committing suicide
    ____ I would kill myself if I could

J.  ____ I don't cry any more than usual
    ____ I cry more now than I used to
    ____ I cry all the time now. I can't stop it
    ____ I used to be able to cry but now I can't cry at all even though I want to
K. ___ I am no more irritated now than I ever am
   [ ] I get annoyed or irritated more easily than I used to
   [ ] I feel irritated all the time
   [ ] I don't get irritated at all at the things that used to
       irritate me

L. ___ I have lost interest in other people
   [ ] I am less interested in other people now than I used to be
   [ ] I have lost most of my interest in other people and have little
       feeling for them
   [ ] I have lost all my interest in other people and don't care
       about them at all

M. ___ I make decisions about as well as ever
   [ ] I try to put off making decisions
   [ ] I have great difficulty in making decisions
   [ ] I can't make any decisions at all any more

N. ___ I don't feel I look any worse than I used to
   [ ] I am worried that I am looking old or unattractive
   [ ] I feel that there are permanent changes in my appearance and
       they make me look unattractive
   [ ] I feel that I am ugly or repulsive looking

O. ___ I can work about as well as before
   [ ] It takes extra effort to get started at doing something
   [ ] I don't work as well as I used to
   [ ] I have to push myself very hard to do anything
   [ ] I can't do any work at all

P. ___ I can sleep as well as usual
   [ ] I wake up more tired in the morning than I used to
   [ ] I wake up 1-2 hours earlier than usual and find it hard to
       get back to sleep
   [ ] I wake up early every day and can't get more than 5 hours sleep

Q. ___ I don't get any more tired than usual
   [ ] I get tired more easily than I used to
   [ ] I get tired from doing anything
   [ ] I get too tired to do anything

R. ___ My appetite is no worse than usual
   [ ] My appetite is not as good as it used to be
   [ ] My appetite is much worse now
   [ ] I have no appetite at all any more

S. ___ I haven't lost much weight, if any, lately
   [ ] I have lost more than 5 pounds
   [ ] I have lost more than 10 pounds
   [ ] I have lost more than 15 pounds

T. ___ I am no more concerned about my health than usual
   [ ] I am concerned about aches and pains or upset stomach or constipation
   [ ] I am so concerned with how I feel or what I feel that it's hard
       to think of much else
   [ ] I am completely absorbed in what I feel

U. ___ I have not noticed any recent change in my interest in sex
   [ ] I am less interested in sex than I used to be
   [ ] I am much less interested in sex now
   [ ] I have lost interest in sex completely
Please read the following list of life events. For each life event which has occurred within the last year to you personally place a check under the appropriate time period. If an event occurred more than once please check the appropriate number of times. Please do not include any events which have occurred after you were admitted to this hospital. Please leave blank any events which have not occurred during the past year.

<table>
<thead>
<tr>
<th>Event Description</th>
<th>0 to 6 weeks ago</th>
<th>6 weeks to 6 months ago</th>
<th>6 to 12 months ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Marriage</td>
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<td></td>
<td>1.</td>
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<tr>
<td>2. Troubles with the boss</td>
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<td>2.</td>
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<td>3. Detention in jail or other institution (do not include this admission to this hospital)</td>
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<td>3.</td>
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<tr>
<td>5. Major change in sleeping habits (a lot more or a lot less sleep, or change in part of the day when asleep)</td>
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<td>5.</td>
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<tr>
<td>6. Death of a close family member</td>
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<tr>
<td>7. Major change in eating habits (a lot more or a lot less food intake, or a very different meal hour or surroundings)</td>
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<tr>
<td>8. Foreclosure on a mortgage or loan</td>
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<td>8.</td>
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<tr>
<td>9. Revision of personal habits (dress, manners, associations, etc.)</td>
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<td>9.</td>
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<tr>
<td>10. Death of a close friend</td>
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<td>10.</td>
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<tr>
<td>11. Minor violations of the law (e.g. traffic tickets, jay walking, disturbing the peace, etc.)</td>
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<td>11.</td>
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<tr>
<td>12. Outstanding personal achievement</td>
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<td>12.</td>
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<tr>
<td>14. Major change in the health or behavior of a family member</td>
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<td>14.</td>
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<tr>
<td>15. Sexual difficulties</td>
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<tr>
<td>16. In-law troubles</td>
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<td>16.</td>
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<tr>
<td>17. Major change in number of family get-togethers (e.g. a lot more or a lot less than usual)</td>
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<td>18. Major change in financial state (a lot worse off or a lot better off than usual)</td>
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<td>18.</td>
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<td>19. Gaining a new family member (e.g. through adoption, birth, olderster moving in, etc.)</td>
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<tr>
<td>21. Son or daughter leaving home (e.g. marriage, attending college, etc.)</td>
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<td>22. Marital separation from mate</td>
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<td>22.</td>
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<td></td>
<td>0 to 6 weeks ago</td>
<td>6 weeks to 6 months ago</td>
<td>6 to 12 months ago</td>
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<td>23.</td>
<td>Major change in church activities (a lot more or a lot less than usual)</td>
<td>23.</td>
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<td>25.</td>
<td>Being fired from work</td>
<td>25.</td>
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<td>27.</td>
<td>Changing to a different line of work</td>
<td>27.</td>
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<td>28.</td>
<td>Major change in the number of arguments with spouse (e.g. a lot more or a lot less than usual regarding childrearing, personal habits, etc.)</td>
<td>28.</td>
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<td>29.</td>
<td>Major change in responsibilities at work (e.g. promotion, demotion, lateral transfer, etc.)</td>
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<td>30.</td>
<td>Wife beginning or ceasing work outside the home</td>
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<td>31.</td>
<td>Major change in working hours or conditions</td>
<td>31.</td>
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<td>32.</td>
<td>Major change in usual type and/or recreation</td>
<td>32.</td>
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<tr>
<td>33.</td>
<td>Taking on a mortgage greater than $10,000 (e.g. purchasing a home, business, etc.)</td>
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<tr>
<td>34.</td>
<td>Taking on a mortgage or loan less than $10,000 (e.g. purchasing a car, T.V., freezer, etc.)</td>
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<td>35.</td>
<td>Major personal injury or illness</td>
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<td>36.</td>
<td>Major business readjustment (e.g. merger, reorganization, bankruptcy, etc.)</td>
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<td>37.</td>
<td>Major change in social activities (e.g. clubs, dancing, movies, visiting, etc.)</td>
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<td>38.</td>
<td>Major change in living conditions (e.g. building a home, remodeling, deterioration of home or neighborhood)</td>
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<td>40.</td>
<td>Vacation</td>
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<td>41.</td>
<td>Christmas</td>
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<td>42.</td>
<td>Changing to a new school</td>
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<td>43.</td>
<td>Beginning or ceasing formal schooling</td>
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</tbody>
</table>
Please go back through the list of life events. For each event which you have checked write the number of the event under "Event No.". Then indicate WHO OR WHAT MADE THE EVENT HAPPEN by placing a check mark under one of the categories. Do this for each time an event happened. Please check only one category- "Myself", "Another Person", or "Something else". If you are not sure or believe that more than one category applies, decide who or what is most likely to have caused the event.

<table>
<thead>
<tr>
<th>Event No.</th>
<th>Myself</th>
<th>Another Person</th>
<th>Something Else</th>
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</table>
Please go back through the list of life events. For each event which you have checked write the number of the event under "Event No.". Then indicate who or what might deserve to be punished or given credit for that event by placing a check mark under one of the categories. Do this for each time an event happened. Please check only one category—"Myself", "Another Person", or "something else". If you are not sure or believe that more than one category applies, decide who or what was most responsible and check that category.

<table>
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<tr>
<th>Event No.</th>
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Again go through the list of events. Put a "+" (plus) mark beside each event which you feel was desirable and a "-" (minus) mark beside each event which you feel was undesirable. Please do this for each event every time it occurred. Please use the list of events that you first filled out to record this information.
Please read the following statements. After you have read each statement in a group of statements, pick out the one statement in that group which best describes the way you feel today, that is, right now. Put a check mark beside the statement which describes you the best. Be sure to read all of the statements in each group before making your choice.

A. ___ I do not feel sad
    ____ I feel blue or sad
    ____ I am blue or sad all the time and I can't snap out of it
    ____ I am so sad or unhappy that it is quite painful
    ____ I am so sad or unhappy that I can't stand it

B. ___ I am not particularly pessimistic or discouraged about the future
    ____ I feel discouraged about the future
    ____ I feel I have nothing to look forward to
    ____ I feel that I won't ever get over my troubles
    ____ I feel that the future is hopeless and that things cannot improve

C. ___ I do not feel like a failure
    ____ I feel I have failed more than the average person
    ____ I feel I have accomplished very little that is worthwhile or that means anything
    ____ As I look back on my life all I can see is a lot of failures
    ____ I feel I am a complete failure as a person (parent, husband, wife)

D. ___ I am not particularly dissatisfied
    ____ I feel bored most of the time
    ____ I don't enjoy things the way I used to
    ____ I don't get satisfaction out of anything any more
    ____ I am dissatisfied with everything

E. ___ I don't feel particularly guilty
    ____ I feel bad or unworthy a good part of the time
    ____ I feel quite guilty
    ____ I feel bad or unworthy practically all the time now
    ____ I feel as though I am very bad or worthless

F. ___ I don't feel I am being punished
    ____ I have a feeling that something bad may happen to me
    ____ I feel I am being punished or will be punished
    ____ I feel I deserve to be punished
    ____ I want to be punished

G. ___ I don't feel disappointed in myself
    ____ I am disappointed in myself
    ____ I don't like myself
    ____ I am disgusted with myself
    ____ I hate myself

H. ___ I don't feel I am any worse than anybody else
    ____ I am critical of myself for my weaknesses or mistakes
    ____ I blame myself for my faults
    ____ I blame myself for everything bad that happens

I. ___ I don't have any thoughts of harming myself
    ____ I have thoughts of harming myself but I would not carry them out
    ____ I feel I would be better off dead
    ____ I feel my family would be better off if I were dead
    ____ I have definite plans about committing suicide
    ____ I would kill myself if I could

J. ___ I don't cry any more than usual
    ____ I cry more now than I used to
    ____ I cry all the time now. I can't stop it
    ____ I used to be able to cry but now I can't cry at all even though I want to
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**K.** I am no more irritated now than I ever am  
| ( ) | I get annoyed or irritated more easily than I used to  
| ( ) | I feel irritated all the time  
| ( ) | I don’t get irritated at all, at the things that used to irritate me  

**L.** I have not lost interest in other people  
| ( ) | I am less interested in other people now than I used to be  
| ( ) | I have lost most of my interest in other people and have little feeling for them  
| ( ) | I have lost all my interest in other people and don’t care about them at all  

**M.** I make decisions about as well as ever  
| ( ) | I try to put off making decisions  
| ( ) | I have great difficulty in making decisions  
| ( ) | I can’t make any decisions at all any more  

**N.** I don’t feel I look any worse than I used to  
| ( ) | I am worried that I am looking old or unattractive  
| ( ) | I feel that there are permanent changes in my appearance and they make me look unattractive  
| ( ) | I feel that I am ugly or repulsive looking  

**O.** I can work about as well as before  
| ( ) | It takes extra effort to get started at doing something  
| ( ) | I don’t work as well as I used to  
| ( ) | I have to push myself very hard to do anything  
| ( ) | I can’t do any work at all  

**P.** I can sleep as well as usual  
| ( ) | I wake up more tired in the morning than I used to  
| ( ) | I wake up 1-2 hours earlier than usual and find it hard to get back to sleep  
| ( ) | I wake up early every day and can’t get more than 5 hours sleep  

**Q.** I don’t get any more tired than usual  
| ( ) | I get tired more easily than I used to  
| ( ) | I get tired from doing anything  
| ( ) | I get too tired to do anything  

**R.** My appetite is no worse than usual  
| ( ) | My appetite is not as good as it used to be  
| ( ) | My appetite is much worse now  
| ( ) | I have no appetite at all any more  

**S.** I haven’t lost much weight, if any, lately  
| ( ) | I have lost more than 5 pounds  
| ( ) | I have lost more than 10 pounds  
| ( ) | I have lost more than 15 pounds  

**T.** I am no more concerned about my health than usual  
| ( ) | I am concerned about aches and pains or upset stomach or constipation  
| ( ) | I am so concerned with how I feel or what I feel that it’s hard to think of much else  
| ( ) | I am completely absorbed in what I feel  

**U.** I have not noticed any recent change in my interest in sex  
| ( ) | I am less interested in sex than I used to be  
| ( ) | I am much less interested in sex now  
| ( ) | I have lost interest in sex completely  

Please read both statements a and b following each number. Decide which you most agree with personally and circle the letter (a or b) which precedes that statement.

1. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries

5. a. The idea that teachers are unfair to students is nonsense.
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what one is like.

9. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
    b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
    b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.
    b. There is some good in everybody.
15. a. In may cases getting what I want has little or nothing to do with luck.
   b. Many times we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to
   be in the right place first.
   b. Getting people to do the right thing depends upon ability, luck
   has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims
   of forces we can neither understand, nor control.
   b. By taking an active part in political and social affairs the
   people can control world events.

18. a. Most people don't realize the extent to which their lives are
   controlled by accidental happenings.
   b. There really is no such thing as "luck".

20. a. It is hard to know whether or not a person really likes you.
   b. How many friends you have depends on how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by
   the good ones.
   b. Most misfortunes are the result of lack of ability, ignorance,
   laziness, or all three.

22. a. With enough effort we can wipe out political corruption.
   b. It is difficult for people to have much control over the things
   politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades
   they give.
   b. There is a direct connection between how hard I study and the grades
   I get.

24. a. A good leader expects people to decide for themselves what they
   should do.
   b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over the things
   that happen to me.
   b. It is impossible for me to believe that chance or luck plays an
   important role in my life.

26. a. People are lonely because they don't try to be friendly.
   b. There's not much use in trying too hard to please people, if they
   like you, they like you.

27. a. There is too much emphasis on athletics in high school.
   b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.
   b. Sometimes I feel that I don't have enough control over the direction
   my life is taking.

29. a. Most of the time I can't understand why politicians behave the way
   they do.
   b. In the long run the people are responsible for bad government on
   a national as well as on a local level.
VITA

Mary Elizabeth Burch