CAPLAN TEST CORRELATES AND FAMILY HISTORY OF CHILDHOOD DEPRESSION COPY I

ABSTRACT

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The reactions of 20 depressive boys, aged 8-13, were examined in two conflict areas thought to be important in the dynamics of depression. These were reactions to the threat of separation from a parent and modes of dealing with aggression. Test instruments were two story completion tests and a collection of Ss early childhood memories. Control groups were 20 emotionally disturbed boys who did not show symptoms of depression and 40 normal boys. The results showed that in contrast with both control groups, depressives reacted with passive withdrawal and apathy in both stress situations. Early memories of depressives were distinguished by an absence of themes involving active attempts at mastery. An examination of early histories of a larger sample revealed that depressives had experienced early parental deprivation between age six months and eight years more often than neurotic children who were not depressed.

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by

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TABLE OF CONTENTS

	PAGE
LIST OF TABLES	
INTRODUCTION	1
The Definition of Depression	4
The Relation of Separation and Mourning to Depression	8
The Role of Aggression in Depression	13
Test Methods	19
Description of the Tests	25
THE PROBLEM	33
PROCEDURE	38
Subjects	38
Design and Method	43
RESULTS	49
Separation Story Completion Test	49
Aggression Story Completion Test	50
Early Memories	52
Measures of Verbal Productivity	61
History of Parental Deprivation	64
DISCUSSION	70
The Influence of Early Parental Deprivation	70
Reactions of Depressive Children Revealed by Tests	75
SUMMARY	83
REFERENCES	84
APPENDICES	

LIST OF TABLES

TABLE		PAGE
1	Diagnoses Assigned to Patients in Nondepressed Neurotic Control Group	39
2	Comparison of IQs of Depressive, Nondepressed Neurotic and Normal Ss	41
3	Analysis of Variance for Data of Table 2	41
4	Socio-Economic Background of Depressive, Nondepressed Neurotic and Normal Ss	42
5	Separation Story Completion Test: Percentages of Story Endings Scored in The Various Scoring Categories for Depressive, Non-depressed Neurotic and Normal Ss	55
6	Separation Story Completion Test: Chi Square Tests of Significance	56
7	Aggression Story Completion Test: Percentages of Responses Coded in Each Story Category for Depressive, Nondepressed Neurotic and Normal Ss	57
8	Aggression Story Completion Test: Chi Square Tests of Significance	58
9	Early Memories: Percentages of Ss whose early memories Contained each Theme Category	59
10	Early Memories: Chi Square Tests of Significance	60
11	Range and Median Number of Words per Story Ending: Depressives, Nondepressed Neurotic and Normal Ss	61
12	Separation Experiences of Depressive and Nondepressed Neurotic Children Serving as Ss	64
13	Early Parental Deprivation: Depressive and Nondepressed Neurotic Children (Clinic Files)	68
14	Experience of Children Following the Loss of One Parent due to Death, Divorce, Desertion or illness	69
15	Paternal Loss versus Maternal Loss	69

INTRODUCTION

Depression in adults is a well known phenonomen, but until recently depression in children has received little notice. However, the investigations of Spitz (1945) Spitz & Wolf (1946) Engel & Reichsman (1956) Bowlby (1952) and others, plus theoretical writings by such psychoanalytic authors as Melanie Klein (1935), and Mahler (1961) stimulated interest in the possibility that children might suffer from a mental state comparable to mourning or depression in adults. As a result, childhood depression recently has received widespread recognition. Attempts have been made (Statten, 1961; Toolan, 1962a, 1962b; Glennie, 1964; Fogarty, 1964) to describe the condition in children and to define its similarities to, and differences from, adult depression.

Although hereditary or constitutional factors have been emphasized (Abraham, 1924; Klein, 1935, 1940; Joffe and Sandler, 1965) depression has almost universally been associated, among psychoanalytic authors, with the loss of a love object in early childhood (Freud, 1917; Abraham, 1924; Klein, 1940) and the resultant "separation anxiety" is said to play a major role in the personality structure of individuals who are prone to depression. Most theorists (Abraham, 1924; Klein, 1935, 1940; Bowlby, 1952) have also suggested that the loss of a love object arouses strong aggressive impulses toward the lost object. Since the love object is still needed, these impulses are experienced as dangerous and unacceptable

and, as a result, depressive patients are said to show strong conflicts over aggressive impulses.

It is the purpose of the present investigation to study depression as it occurs in children, using as a point of departure some theoretical assumptions commonly made about depression. The two areas chosen for special consideration were the depressive children's attitudes towards separation and their modes of dealing with aggression. The test instruments consist of a series of story completion tests constructed to deal specifically with the two areas chosen for special study, and a collection of patients' earliest childhood recollections. The latter is a less structured technique which leaves the subject free to point out his own major concerns by his choice of earliest memories. The investigation was designed to determine whether reactions to these two conflict areas will differentiate among a group of depressive children, a group of emotionally disturbed children who do not show symptoms of depression and a group of normal children. It was hoped that story completion tests might yield data that would clarify depressive children's attitudes to the two areas chosen for special consideration. At the same time, early memories might reinforce the results of these tests and also might yield additional information about the concerns and conflicts of children suffering from depression.

Since a history of object loss in early childhood has been emphasized by many theorists as an etiological factor in depression, it seemed important to determine whether such experiences are more common among depressive children than among other types of neurotic children. Therefore, an additional study was done in which the histories both of

the children who served as subjects in the first part of the study and also of a larger sample taken from hospital files, were examined to discover whether depressive children have been separated from their parents in early childhood more often than neurotic children whose symptomatology does not include depression.

The Definition of Depression

A major problem in a study of this kind is to establish what one means by the term "depression". The disorder is not readily defined in a clearcut, unambiguous way. In studies of adult patients, authors have debated whether it should be treated as a disease entity or as a symptom, (Lewis, 1934; Garamany, 1958; Davies, 1964). Early psychiatric writers such as Kraepelin and Bleuler considered depression a nosological entity and it was classified into separate subgroups including endogenous, reactive and involutional depressions. Those writers who adhered to the classical school maintained that there was a qualitative difference between reactive depressions, and endogenous depressions or manic-depressive psychoses. The former were attributed to stressful environmental factors and the latter to hereditary or constitutional influences. Reactive depressions then, were thought to occur as a result of various precipitating events, whereas endogenous depressions seemed to arise for no obvious external reason.

Other writers (Lewis, 1934; Garamany, 1958) challenged the validity of the differentiation between the subgroups and regarded depression more as a symptom complex than as a nosological entity. They believed that the differences between the various types of depression were ones of degree rather than of kind. Garamany (1958) studied 525 cases of depression in adults which had been divided into the three classical categories of reactive, endogenous and involutional. He analyzed each case for the presence of stress factors, precipitating events and constitutional influences and found no essential differences among the three

groups. Aubrey Lewis (1934), having come to the same conclusion, defined depressive illness as one where the clinical picture is dominated by unpleasant affect which is not transitory, and where there is no evidence of schizophrenia or organic brain disease. Lehmann (1959) described a sad, despairing emotional state as the primary symptom. In addition, he mentioned various other secondary symptoms including feelings of hopelessness, hypochondriasis, insomnia, weight loss, poor appetite, inactivity and withdrawal from social contacts, psychomotor retardation, slowed thinking, difficulty in concentration, loss of self esteem, feelings of guilt and sometimes obsessive-compulsive behaviour. McPartland and Hornstra (1964) regarded depression from the standpoint of interpersonal relationships and described three kinds of "message" that the depressive patient sends to other people, varying according to the severity of the depression. The first, found in least severe depressions, is that of "helplessness-hopelessness"; another is the "low energy, physical complaint" theme; the last and most severe, is the "worthless-evil, self-accusatory" theme. Recently, under the influence of psychoanalytic theory, psychiatrists have tended to diagnose depression in cases where unpleasant affect is not obvious, but an underlying depression is inferred from the presence of symptoms such as boredom, restlessness, and psychosomatic or eating and sleeping disturbances, and terms such as "masked depression" and "depressive equivalents" have come into use. (Toolan, 1962a).

Depression in childhood

The foregoing authors have been concerned primarily with depression in adult patients. Writers who have described childhood depressive

symptoms have also emphasized the unhappy affective state. Toolan (1962a) stated, however, that although a sad mood is common to both adult and child depressives, in children there is often more overt anger and aggressive acting out behaviour than in adults. Statten (1961), though he also emphasized the sad, despondent mood, mentioned overt aggressive behaviour and uncooperativeness among the symptoms of depression in childhood. Glennie (1964) noted that anxiety plays a more prominent part in children. There has been some speculation as to the possible existence of depressive or manic depressive psychosis in childhood (Campbell, 1952), but, if it exists in childhood, it is said to be very rare (Bradley, 1937; Kanner, 1946; Anthony & Scott, 1960). Some writers have described cycloid personality or manic states in children (Campbell, 1952; Harms, 1952), but Anthony & Scott (1960) pointed out that hyperactive states due to other causes such as minimal brain damage might be confused with true manic episodes. Again, some psychiatrists allude to "masked depressions" or "depressive equivalents" where a sad mood is not prominent, but the existence of an underlying depression is inferred indirectly. (Toolan, 1962a, 1962b).

The criterion adopted for depression in the present investigation

In the present investigation, because of the uncertainty associated with the relation of mania to depression in childhood, the study was concerned only with depressive symptoms. It also was felt advisable for methodological reasons to adopt a criterion where depression could be defined with as little ambiguity as possible. Therefore where symptoms

associated with "masked depression" were present, but an unhappy affective state was not evident in the behaviour of the child, a diagnosis of depression was not accepted. Thus, although other symptoms were noted, the criterion adopted for depression was the one used by Lewis (1934). A child was considered depressed if a persisting sad emotional state was evident in his behaviour and if he did not show symptoms of schizophrenia or organic brain disease.

The Relation of Separation and Mourning to Depression

Among the early psychoanalytic writers (Freud, 1917b; Abraham, 1924) depression was often associated with mourning and the loss of a love object. Psychoanalysts, working from their experience with adult depressive patients, postulated the probable experience of deprivation in early childhood. However, since these psychoanalysts worked with small numbers of patients and were oriented toward treatment of the individual rather than toward research with large numbers of subjects, their theories were not put to an empirical test.

Empirical studies of adult patients

More recently, retrospective studies of adult patients (Brown, 1961; Bruhn, 1962; Beck, Sethi & Tuthill, 1963; Greer, 1964) have found a high incidence of parental loss in childhood among depressive adults. However, parental loss in childhood has also been associated with other forms of psychopathology, notably schizophrenia (Barry, 1949), sociopathic personality (Earle & Earle, 1961; Brown, Epps & McGlasham, 1962; Brown, 1966), hysterical personality (Fitzgerald, 1948) and unspecified psychoneurosis (Gardner & Goldman, 1945; Madow & Hardy, 1947; Ingham, 1949; Barry & Lindemann, 1960). These studies are difficult to compare, however, because of methodological differences. Some of the major difficulties include the definition of the terms "separation" or "deprivation" and the importance of the age at which a loss occurred. Some studies (Brown, 1961; Beck et al, 1962: Brown et al, 1962) focus on parental death while others (Madow & Hardy, 1947; Gardner & Goldman, 1945; Lidz & Lidz, 1949) include divorce, or desertion, in their

definitions of deprivation. Others (Greer, 1964; Bruhn, 1962) designate any temporary but prolonged absence (six months to a year) of a parent as separation. Different writers have emphasized different age periods as being critical for the harmful effects of separation. In studies of adult patients cutoff points have ranged from age six years (Earle & Earle, 1961) to 22 years (Ingham, 1949). Such problems make it even more difficult to compare the results of these studies with those of children.

Empirical studies of children

Starting with the work of Spitz (1945), Spitz & Wolf (1946) and others summarized by Bowlby (1952) attention began to be focused on the effects on children of separation from their parents, chiefly the mother. Spitz (1945) and Spitz & Wolf (1946) noticed that infants who had had a good relationship with their mother up to the age of about six months and then were separated from her, showed symptoms which were similar to adult mourning. Spitz termed these symptoms "anaclitic depression". He pointed out that if the separations lasted longer than three months, the infants usually did not recover their previous personalities.

Anna Freud and Dorothy Burlingham (1942, 1944) noted that among children separated from their parents because of World War II, severe grief reactions were common, especially among young children up to age three years. At that time, Freud & Burlingham felt that these reactions were short lived and had no permanent effect. However, Anna Freud (1960) later reported follow-up studies which indicated that this was not so. Although they seemed to achieve comparatively stable relationships during the latency period, children who had experienced repeated or lengthy

separations in early infancy and childhood tended to exhibit withdrawn, depressive, self-accusatory or hostile mood swings from preadolescence onward.

Bowlby (1952, 1960, 1961) also studied the effects of maternal deprivation and emphasized that losses in older children as well as in infants or very young children are likely to lead to pathological outcomes. Bowlby (1961) believed that an infant establishes a tie to a mother by a process similar to imprinting and that once this tie is established (at about age six months) prolonged separation will set off processes of mourning. In young children these processes are likely to be unsucessfully resolved and therefore lead to unfortunate outcomes, the nature of which depends on the age of the child at the time of separation and the severity of the deprivation. Very severe deprivation occurring so early that a bond has not yet been established and/or frequent changes in mother substitutes in early childhood might create a psychopath, or what Bowlby (1952) called an "affectionless character", a child unable to form relationships with others. Less severe deprivation, lasting a shorter time or occurring later, would be more likely to lead to severe anxiety, excessive need for love and to guilt, withdrawal and depression.

Psychoanalytic theories of the effect of separation on depression

Freud (1917b), pointed out that many of the features of melancholia are similar to those seen in normal grief reactions. The main difference is that in melancholia there is a lowering of self esteem not found in normal mourning. Abraham (1924) defined a factor common to all depressions as a "severe injury to infantile narcissism brought about by successive

disappointments in love" (1924, p.458). This "primal parathymia", as Abraham termed it, might be caused by the actual loss of the mother, but it also might include less radical experiences such as the loss of the mother to the father (oedipal conflicts), or the loss of the mother's attention as the result of the birth of a new sibling. Abraham suggested that the first disappointment in love occurs in early childhood before the oedipal conflicts have been resolved, and that such experiences might lead to a feeling of being abandoned, to rage, ambivalence and finally to hopelessness and depression. This "primal depression" in childhood sets the pattern for recurrences in later life and predisposes such individuals to intense reactions to object loss.

Melanie Klein (1935, 1940) developed theoretical speculations based on her clinical experience with very young children. She postulated a critical stage in infantile development, occurring around the age of six months, which she called the "depressive position". Klein believed that in the first few months of life the infant has not yet the capacity to differentiate himself from the environment and is not yet aware of the person who tends him as a separate individual. However, as the infant reaches the age of about six months, he learns to perceive the mother as a whole person separate from himself who is the source of both satisfactions and frustrations. He also realizes that she can come and go regardless of his wishes and so begins to fear her loss. Klein believed that from this point onward the infant is capable of mourning. Klein suggested that a trauma or failure in the resolution of this critical stage of development predisposes an individual to depression and exaggerated reactions to the loss of a love object in later life.

The separation of a mother and child during this stage might cause difficulties in its resolution, but Klein suggested that other influences such as constitutional factors might make it more difficult for a particular child to make the adjustments necessary to its resolution.

In summary, although depression is not the only form of psychopathology associated with deprivation and psychoanalytic theorists have not specified that a physical separation is necessary, both psychoanalytic theory and empirical studies have suggested that a history of prolonged separation from a love object in early childhood is likely to be found in patients suffering from depression. Depressives have been said to display an unusual amount of "separation anxiety" and to react more intensely than normal people to object loss in later life. Most writers (Abraham, 1924; Klein, 1935, 1940; Bowlby, 1960), have agreed that six months is the age at which the infant begins to be able to form object relations. It has been suggested by Bowlby (1952) and Spitz (1945) that the age at which a separation occurs and/or the length or severity of a separation might have some bearing on the form of psychopathology which develops.

The Role of Aggression in Depression

As regards the manifestations of aggression among adult depressive patients, depressives are said to handle aggression differently from normal people in ways ranging from a general attitude of hopelessness, apathy and absence of any striving to expressions of strong self hatred, guilt and exaggerated self blame, sometimes culminating in suicide. Aggression actively directed toward others is less often found in depressed persons (Noyes and Kolb, 1964; Davies, 1964).

Various theories have been proposed to account for the part played by aggression in depression. Among the majority of psychoanalytic authors, aggression is thought to play a significant role in the dynamics of depression and almost always its vicissitudes have been related to a disappointment in or loss of an important love object in early childhood. Abraham (1911) suggested that anger arising out of the frustration of an individual's need for love gives rise to an attitude of ambivalence where hate dominates positive feelings. Freud (1917b) also stressed the importance of ambivalence or hostility stemming from the loss of an important love object. Freud explained the depressive patient's loss of self esteem and expressions of self reproach as really being reproaches against the lost or disappointing object which have been displaced onto the patient's own ego through the process of introjection. Thus, instead of expressing anger outwardly toward the love object, the patient turns his aggression inward against himself.

Abraham (1924) accounted for the presence of ambivalence by postulating a constitutional over-accentuation of oral eroticism which pre-

disposes an individual to especially strong reactions to oral frustration. When an individual with such an inherited predisposition is exposed to disappointments in love at an early stage of development before ambivalent feelings have been resolved, depression is likely to ensue. Abraham, like Freud, felt that the depressive patient's self reproaches, originally directed at a disappointing love object were displaced onto the self. Abraham believed that some ambivalent feelings are normally present in all children from the time that the child begins to form object relations (at around age six months) until he has reached the genital stage of development in late childhood at around age seven or eight. Thus, according to Abraham, a child who is constitutionally predisposed, is particularly vulnerable to traumas connected with loss of or disappointment in a love object all through early childhood.

Melanie Klein (1935) suggested that before the development of the "depressive position" there is an earlier phase which she called the "paranoid position" during which the infant can relate only to part objects, e.g. the mother's breast. The breast is seen as a very good (satisfying) object or a very bad (frustrating) one. According to Klein, the infant introjects both good and bad objects and strives to preserve the good object, but hates and wants to annihilate the bad one. During the "paranoid position" the infant is not yet able to perceive that both objects are part of the same individual and therefore ambivalence does not arise. However, with the development of the "depressive position", the child begins to relate to the mother as a whole person and his feelings toward her become ambivalent. The infant's anxieties then center

on the preservation of the good object and the fear that his rage against the bad object may have destroyed the mother and with her, his own internalized good objects. If the mother is absent for a prolonged period, his fears that he might have destroyed her are intensified and thus, both separation anxiety and conflicts over aggressive impulses occur at this time. According to Klein, aggressive impulses are experienced as very dangerous at this stage of development and if the conflicts characteristic of the "depressive position" are not resolved, inhibition of aggressive behaviour and depression are likely to ensue. Thus, according to Klein's theory, one might expect to find a fear of expressing aggression in a depressive child and possibly a generalized inhibition of aggressive behaviour.

Bowlby (1960) believed that anger and aggression are inevitable components of the mourning process in normal as well as neurotic individuals, not because of oral conflicts, but because separation itself constitutes a severe frustration of an instinctual attachment to the object. He delineated three phases of mourning, the first of which consists of angry protest behaviour. During this phase the response systems are directed toward the lost object and aggressive energies are employed in a constructive way, their goal being to regain or obtain help in regaining the lost object. Then, as separation is prolonged, the hope of regaining the lost object fades and anger gives way to despair. At this point a disorganization of the personality occurs as a result of the disruption of the tie to the lost object. Finally, a third phase ensues in which a reorganization of the personality takes place

which, in successful mourning, makes it possible to establish a tie to a new object.

Bowlby stated that depressive illness arises chiefly because of an individual's inability to tolerate the disorganization of personality necessary to the second phase of mourning. Such a person, therefore is unable to give up his tie to the lost object. He maintains his reproachful anger at the object and continues his attempts at reunion with it. Thus, a state of ambivalence is prolonged. Often, the anger becomes repressed or displaced onto others. Depression is one result of such unsuccessful mourning. A pathological outcome is especially likely to occur in children because of their lower tolerance for personality disorganization and their greater dependence on the parent.

Bowlby (1952) pointed out that when a child has been subjected to a prolonged separation from a parent, his feelings of ambivalence are likely to be intensified on the parent's return. The child shows an excessive need for affection, is demanding and clinging, but at the same time is angry and has excessive impulses for revenge. Often, because he still needs the parent's good will, the child does not dare express his anger, and this leads to anxiety, guilt and depression where expressions of aggression are inhibited or turned inward against the self. The capacity for using aggression in its constructive aspects, such as in normal self-assertion, is apt also to be lost.

Bibring (1953) disagreed with the foregoing authors and stated that depression is essentially independent of aggression. He believed that depression is the emotional expression of a state of helplessness or

powerlessness in the face of an inability to live up to his aspirations. The inhibition accompanying depression is explained by the individual's giving up the pursuit of goals because his efforts have come to nothing. Bibring stated that an early experience of extreme helplessness is probably the most frequent factor predisposing to depression.

Sandler and Joffe (1965); Joffe and Sandler (1965) gave their clinical impressions of the dynamics of childhood depression based on a study of 100 cases treated at the Hampstead Child Therapy Clinic. According to these authors, the depressive reaction in children, at least on the descriptive level, would seem to be closer to Bibring's formulation. They characterized the depressive reaction as "a state of helpless resignation in the face of (mental) pain together with an inhibition of drive discharge and ego functions." (Sandler & Joffe, 1965, p. 92). Like many other theorists, Sandler & Joffe linked depression to object loss, but believed that what was lost was a feeling of well being and safety which was dependent on the relation with the lost person. The authors suggested that the normal response to frustration or pain is aggression directed at whatever is seen to be the source of pain, but that the depressive response is characterized by an inability to discharge aggression; instead the depressive patient shows an attitude of capitulation and retreat. Sandler & Joffe stressed that this attitude of capitulation involves a generalized inhibition of drive and ego functions and not necessarily an inhibition of hostile aggression.

In the literature cited above, there appears to be some confusion as to the meaning of the term "aggression". On the one hand it implies

anger or hostility which can be expressed outwardly, inhibited, or turned inward against the self. On the other hand, aggression is regarded more broadly as being also the constructive ability to strive in a nonhostile way toward self actualization and attainment of goals. It would seem that both Bibring and Sandler & Joffe refer to this second type of aggression.

From the above formulations, then, it would seem that there are roughly two ways of regarding the role of aggression in depression. According to one view, aggression is a hostile, destructive force, originally directed at a disappointing love object, which in depression has become directed inward against the self, creating a loss in self-esteem and feelings of guilt or self hatred, (Freud, 1917b; Abraham, 1924). According to the other view, aggression in its constructive as well as destructive aspects has become inhibited or inoperative either as a result of conflicts over hostile aggressive impulses which create a generalized fear of expressing aggression (Klein, 1935, 1940; Bowlby, 1952, 1960), or as a result of a sense of helplessness stemming from continued frustration or failure to attain ones goals, (Bibring, 1953; Sandler & Joffe, 1965; Joffe and Sandler, 1965). According to this latter view, the role of aggression per se is not the important issue, but depression is regarded as a condition where instead of using constructive energies to overcome pain or attain goals, the individual's attitudes are characterized by withdrawal and passive resignation.

Test Methods

In preliminary investigations, several kinds of test were tried out; finally two were chosen as being the most suitable. One was the story completion test and the other was a collection of the subjects' earliest childhood memories. Since interest centered on two particular areas of conflict (the reactions of depressive children to the threat of separation from parents and/or home and their ways of handling aggressive feelings) it was desirable to find a test which could highlight their reactions to these situations. Among the test instruments available, the story completion tests seemed the most appropriate for this purpose. Story completion tests, more than such projective techniques as the Rorschach or TAT, enable the experimenter to guide the subjects' responses to a particular situation or conflict area. The responses are sufficiently structured to permit the examiner to interpret them relatively objectively, but at the same time the technique is indirect enough to encourage spontaneity and to reduce the defensiveness which may handicap questionnaire methods.

Previous research with story completion tests

Research with story completion tests has revealed significant data in the fields both of psychopathology and normal or developmental psychology (Seaton, 1949; Miller & Swanson, 1960; Kelley & Bishop, 1942; Rebelsky, Allinsmith & Grinder, 1963; Douglas, 1965; Bildfell & Douglas, 1965). Seaton (1949) presented children with stories depicting various parent/child interactions and asked them to describe what the parent would do in each case. He found significant relationships between personality ratings and choices of story endings among both normal and "rejected" children.

The story completion technique has revealed significant developmental changes in responses of normal children to aggression (Bildfell & Douglas, 1965) and frustration (Douglas, 1965). Douglas (1965) presented children aged 8-16 with incomplete stories depicting children faced with frustrating events. She found a negative correlation between age and story endings where the child either ignored the frustrating events presented in the stimulus stories or replaced unpleasant events with pleasant "wishfulfilling" distortions of the situation. Responses indicating the hero's ability to accept frustration and cope with it rationally increased with age. The results were related to psychoanalytic theories regarding the gradual development of nondefensive or nondistorting methods of coping with frustration - the ability to delay gratification, find alternative paths to a goal and to learn to accept unpleasant facts.

Bildfell & Douglas (1965) found that the ways in which normal children respond to aggressive acts also vary with age. In younger boys responses involving dependence on another person for comfort or retaliation, and passive withdrawal from the situation were common. Their data showed that as boys grow older such responses give way to more adaptive means of retaliation. These include the use of verbal aggression, awareness of anger, but conscious control of overt retaliation and "realistic problem solving": persistence to ones goals without resorting to overt aggressive behaviour.

Early memories and personality dynamics

The term "early memories" refers to the few isolated fragments of remembered events which usually precede the beginning of continuous memory.

The assumption underlying the use of early memories as a personality indicator is that they are instances of selective recall, not necessarily accurate memories of the past. It has been demonstrated that a person's needs can influence both perception and memory; the memory function implies an active organizing by the mind of events and therefore is subject to varying degrees of distortion. (Bartlett, 1932; Rapaport, 1942; Vinacke, 1952; Klein, 1959).

Early memories as expressions of a person's underlying attitudes and needs were given a theoretical framework by Adler (1937) who described them as expressions of an individual's "life style", which revealed his role in his present life, his goals and his technique for achieving them. Freud (1899, 1917a) felt that early memories were "screen memories": innocuous and usually distorted or elaborated memory traces which concealed and symbolized other more important and significant experiences which had been repressed, but were still exerting their influence on the present life of the subject.

Mayman (1960, 1963) made an attempt to classify early memory themes from the standpoint of psychoanalytic ego psychology. He described early memories as being unconsciously selected so as to conform to an individual's tacit (preconscious or unconscious) self image. In his earliest recollections a patient reveals his underlying feelings about himself, his role in life and his relations to significant people.

Thus, early memories can be thought of as expressions of what Frank (1963) called a person's "assumptive systems". Frank stated:

> A person's assumptive systems about himself are sustained by selecting from innumerable past experiences those that support his current view of himself. Experiences that do not fit this view are forgotten; those that do may be overemphasized or even modified to make them fit better. Thus a person's memory of his past is not so much a factual record as an "apologia" constructed to fit a particular image of oneself and others, and subject to modification as these images change. (p.61).

Recently, early memories as personality indicators have been studied in a more systematic fashion and various empirical studies, summarized by Caplan (1963), have given support to the assumption that early memories are indicative of personality factors. Ansbacher (1947), using the Maslow Security-Insecurity Test, found differences between high and low scorers in various theme categories. The high security group more often remembered participating in group activities, being active and being treated kindly by others. Subjects who remembered themselves as being cut off from groups, getting or losing prestige, having done something bad, or seeing others receiving kindness, had low security scores. However, Ansbacher presented little quantitative data and thus it is impossible to evaluate the statistical significance of his findings. Purcell (1952) used more refined procedures in examining the differences between memories of insecure and secure subjects. He found that affective features of both childhood and adult memories, including optimism and pessimism and the relative frequency of joy versus fear, were significantly related to security feelings as revealed by the Maslow Security-Insecurity Test. Levy & Grigg (1962) found that it was possible to match data on patients' dynamics with a collection of their early memories. They concluded that it was possible to predict preconscious attitudes of a patient from a set of his earliest memories.

The use of early memories as diagnostic indicators has not been widely examined, but the results of existing studies suggest that some forms of psychopathology may be reflected in the content of patients' earliest memories. Wolfman & Friedman (1964) found a high frequency of early memories concerned with leg injury or dysfunction among patients whose major symptom was genital impotence. The findings were interpreted as supporting the psychoanlytic theories of displacement and symbol formation. Eisenstein & Ryerson (1951) found that certain themes, including those of abandonment among depressive patients, were characteristic of particular diagnostic categories. However, statistical analyses of their data were not employed. Jackson & Sechrest (1962) in a better designed study, examined the incidence of six themes among adult patients in four diagnostic categories. Themes of abandonment were significantly more frequent among depressive patients, but as such themes did occur among other patients, the authors felt that their presence could not be considered a diagnostic sign in individual cases.

Most of the foregoing studies have chosen a small number of single theme categories such as the presence or absence of injury, abandonment, etc. and found a correlation between the presence of such themes and particular personality types or diagnostic groups. Levy & Grigg (1962) proposed a scoring system which encompassed a large number of theme categories. This type of scoring procedure, though complicated, affords a more comprehensive analysis of the major themes that occur in the earliest memories of various types of patient. In the present investigation, Levy & Grigg's system was used as a point of departure and an attempt was made to include as many as possible of the themes which

occurred in the Ss' early memories. An advantage of this procedure is that it allows an examination of themes which do not occur in the early memories of a particular pathological group, but do occur in those of normal Ss as well as an examination of themes which are characteristic of a particular diagnostic group.

Description of The Tests

Separation story completion test

Six incomplete stories, each involving the separation or threat of separation of a child from his parents, friends, and/or familiar surroundings were devised by E. The stories all dealt with relatively mild separation experiences which might occur normally in any child's life. S was required to provide an ending for each story. A typical story is as follows:

> One day Johnny came home from school and found his mother talking on the telephone. Her face looked very serious. When she had finished talking she called Johnny and said: "Johnny, that was Uncle Bill. He says that Aunt Alice is very sick and he has asked me to come and take care of her. I must leave this afternoon. But that means that I won't be able to be with you and Daddy for awhile."

The complete set of stories is found in Appendix A.

Scoring system: A scoring system was devised from the results of a previous pilot study. It was found that most responses could be coded under the following categories:

1. "denial" of the threat of separation:

   a) The separation experience is evaded. Either it fails to take place or it is ended immediately. For instance, in the story quoted above, the mother decides not to go, or else takes the child with her. In another story where a child is at summer camp feeling homesick, he goes home instead of staying at camp.

   b) The story ending is concerned only with the ending of the separation with no mention of the separation itself, no negative feelings regarding it, and no mention of what happens during the separation. For instance, in the story quoted above, S tells what the hero did when his mother got home, but mentions nothing about what happened while she was away.

2. excessive optimism:

   a) S states that the hero can take care of himself very well and is happy <u>without</u> mentioning any sorrow, worry or fear at the separation or describing exactly what he does or how he copes during the separation.

   b) Very good things happen to him during the separation or because of the separation. These can be instigated by himself or by someone else. For example, in a story about going to camp, the hero stays at camp, wins the swimming meet, becomes captain of the baseball team and ends up the most popular boy in the camp. In another story, the hero and his family move to a new town, and the hero is worried about being able to make new friends. In one story ending a crowd of children from the new neighbourhood has already heard about him and is waiting to make friends with him when he arrives.

3. pessimism:

   a) Something worse than the separation itself takes place, or the separation is prolonged indefinitely with no prospects of reunion. For instance, in the story quoted, not only the mother goes away, but the father also is called away. In a story about going to camp, not only does the child stay at camp, but he gets sick or hurt; his tent mates don't like him and tease him. (A response was scored in this category only when the story ended sadly. If unfortunate events brought about an end to the separation, the response was not scored as pessimistic. For instance, in the example quoted, if the hero gets sick and has to be taken home from camp as a result, pessimism was not scored).

   b) The hero of the story blames himself, is blamed for the separation, or is blamed for feeling badly about it. The parent is unsympathetic and reacts with hostility to the hero's sorrow. For instance, in the story quoted above, the parent tells the child, not to be a baby, or that if he does not do all his homework while mother is away, he will be punished when she comes back.

4. active adaptation:

> Sadness or anxiety about the separation may or may not be expressed explicitly, but recognition of affect is at least implied (e.g. S says something like: "Well, it's tough for him, but....") and the hero makes some adjustment to the situation. Although an adult may provide moral support, console the hero or help him to reconcile himself to the separation, the hero adapts to the situation himself and finds a way of making it more endurable without resorting to any of the "defensive" operations described in categories 1-3. Category 4 was scored only if the story ending did not receive a score in categories 1-3.

5. apathy:

> No action of any kind is taken by the hero himself to deal with the separation. Although sadness may or may not be expressed, S proposes no remedy for the situation, even if prompted by E. (Any promptings were limited to repeating the question "What happens?") At the same time S does not resort to any of the solutions described in categories 1-3. Here too, a score in categories 1-3 precluded scoring in category 5. A typical response to a story about going to camp would be, "He's sad." (What happens?) "He stays until camp's over." or "I guess he'd end up neither liking it nor disliking it. That's what happens all the time."

Interjudge agreement: Twenty-five test protocols were selected at random from among the total sample. Each protocol contained six stories which yielded a total of 150 story endings. The story endings were scored independently by two judges[1] and a percentage of agreement for each scoring category was calculated. Interjudge agreement was based

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1 I am indebted to Susan Markevitch for her help in scoring the story endings in the separation story completion test.

only on those instances where both judges scored a category present in a particular story ending. The inclusion of those cases where both judges scored a particular category absent would have inflated the measures of agreement considerably. Thus, agreement was registered if both judges scored a particular category present; disagreement if one judge scored it present and the other absent. For each category of response the number of times that both judges scored it present was divided by the number of times both judges scored it present plus the number of times only one judge scored it present. The percentages of agreement obtained for each scoring category were as follows: denial of the threat of separation 85%; excessive optimism 79%; pessimism 100%; active adaptation 80.9%; apathy 65.4%.

Aggression story completion test

The stories used to elicit aggressive responses were eight of the 12 developed by Bildfell & Douglas (1965). In each story the hero is engaged in an activity important to him when another child makes an aggressive attack against him. In one half of the stories the attack is intentional and in one half, accidental. Half of the attacks are of a physical nature and half verbal. One of the stories follows:

> David had got a brand new bicycle for his birthday. That afternoon, the weather was warm and David thought that this would be the perfect chance to try out his new bicycle and to show it to all his friends. Everyone admired it and a few boys wanted to turn riding on it. David didn't mind this and let them have a turn, feeling very proud. When he went to take the bicycle from one of his friends who had just finished his ride, another boy came up to him and said, "Hey, what about me?" David was very surprised because this boy had not asked him for a ride. Before he had time to answer, the boy gave David a hard push. David fell from his bicycle onto the ground.

The complete set of stories is found in Appendix A.

Scoring system: The aggression story endings were scored according to a scoring system devised by Bildfell & Douglas (1965) who found that most responses that occurred in their sample could be coded under the following categories:

1. physical aggression: responses such as hitting and kicking.

2. verbal aggression: a verbal reply involving a threat, insult or reprimand.

3. realistic problem solving: non-aggressive responses involving perseverance to a goal in a rational, well controlled manner, or a realistic acceptance of the situation.

4. awareness of the accidental nature of aggression: (scored only in those stories in which aggression was unintentional) responses in which S explicitly and spontaneously verbalized his awareness that the aggressive act was unintentional.

5. control of aggression: responses in which S stated that there was a desire to aggress, but a conscious decision not to do so.

6. dependency: responses involving turning to others for comfort or the use of others to retaliate against the aggressor.

7. passive withdrawal: responses in which S described the hero as withdrawing from the situation and making no active attempt to cope with it.

The eight story endings of each S were scored for the presence or absence of each of the seven categories outlined above. As in the separation stories, a single story ending could contain more than one category of response.

Interjudge agreement: A percentage of agreement for each scoring

category was calculated in the same way as for the separation stories.[1] The following percentages were obtained: physical aggression 100%; verbal aggression 89.7%; realistic problem solving 84.0%; awareness of accidental nature of aggression 83.3%; control of aggression 71.4%; dependency 100%; passive withdrawal 82.6%.

Early memories

Each child was asked for his earliest memory or memories. In order to increase the amount of analyzable data, he was also asked for his earliest memory of his mother and of his father. In addition he was asked for his earliest memory of going to school. The latter was included because starting school is an early separation experience common to all children. It was felt, therefore, that a child's attitudes toward separation from parents might be highlighted in his earliest memories of going to school.

Scoring system: The scoring system used to score the early memories was derived from one devised by Levy & Grigg (1962).[2] The early memories of all subjects were scored according to this system, and the frequency of each theme was calculated. It was found that the early memories tended to fall into certain theme categories more than others. Some occurred very infrequently or not at all. Therefore it was

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1 I am grateful to Gale Bildfell for her help in scoring aggression story endings.

2 Although this scoring system was originally constructed to be used with adults, a preliminary pretest showed that there were very few memories of normal or neurotic children which could not be scored in the categories included in it.

decided to eliminate from the analysis any theme category which did not occur in at least 3% of the total number of early memories which were used in the study. This procedure reduced the number of themes from the original 31 to the 12 which were used. A description of these 12 categories follows: The complete system is outlined by Levy & Grigg (1962).

1. Gratification of dependency needs - feelings of being given to; acceptance of dependency needs; comforting care; being cared for by doctors.

2. Feelings of temporary abandonment - transient frustration of dependency needs; separation from parents; insufficient attention and love; sadness over losing a real object; grief reaction; birth of a sibling.

[1]3. Feelings of deep seated frustration of dependency needs; abandonment; sense of being lost; feelings of complete worthlessness; feelings of being overwhelmed by undue tension.

4. Attempts at mastery - acting on ones own independently; exploration; initiative; displaying ones strength; peer activity.

5. Acting independently with some appropriate help; being helped to look after oneself; being taught ones name and address, how to tie ones shoes.

6. Pseudo-independency - pseudo-masculinity; showing off; activity more suitable to adults.

7. Watching independent activities of others - envying others; yearning to do as well as ones ego-model.

8. Being the object of severe and/or cruel attack with feelings of helplessness; being beaten by an adult or dangerous creatures.

9. Feelings of being ridiculed, belittled, pushed, humiliated, scolded, mildly attacked.

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1 This theme category did not occur in 3% of the total number of early memories, but it occurred only in the early memories of depressive Ss. Therefore note was made of it.

10. Being attacked, but escaping or retaliating, not helpless.

11. Self-aggression; hurting oneself. (can be accidentally)

12. Observance of aggression; observing others fighting; observing fires, automobile accidents.

Interjudge agreement: Ten early memory protocols were selected at random from each group of Ss making a total of 30 Ss and 140 separate memories. These were scored independently by two judges.[1] Each scoring category was analyzed in the same way as in the two story completion tests. (See p. 27) The percentages of agreement between the two judges were: gratification of dependency needs 82.6%; temporary abandonment 82.4%; feelings of deep seated frustration of dependency needs 100%; attempts at mastery 87.5%; acting independently with help 78.9%; pseudo-independency 75.0%; watching independent activities of others 70.0%; being the object of severe attack 84.6%; being ridiculed, mildly attacked 90.9%; being attacked, but escaping, retaliating 100%; self aggression 92.9% observance of aggression 70%.

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1 I am very much indebted to Dr. Joshua Levy for his help and advice in scoring the early memories.

THE PROBLEM

Since little is known about childhood depression and few empirical studies have as yet been done, the present investigation was designed chiefly as an exploratory study. The literature on both adult and childhood depression emphasizes the role of early object loss and describes exaggerated reactions to separation in depressive patients. Theoretical writings have also stressed the importance of the vicissitudes of aggression in depression. Therefore, it was expected that depressive children would show patterns of response in both these areas different from normal children and from children who though emotionally disturbed, are not depressed. Since both separation from parents and being aggressed against constitute stress situations for all children, both groups of neurotic children would be expected to give responses less mature or adaptive than normal children, showing less ability to accept and cope with the frustrations presented in the story completion tests. However, the kinds of maladaptive story endings given by depressive children might suggest a particular pattern of defensive style characteristic of depression.

In the light of the theories outlined above, depressive children would be expected to show exaggerated concern over separation. In the separation story completion test this might be reflected in a larger proportion of story endings where the child avoids confronting the threatened separation, by using "denial". This type of response, however, has been shown to be typical of younger children (Douglas, 1965)

so nondepressed neurotics may also use it more frequently than normals. However, if separation is particularly threatening to depressives, they should show more "denial" than nondepressed neurotics. Both clinic groups would probably produce fewer responses than normal children involving active adaptation to the separation. This response might be considered a relatively mature one because in giving such a story ending, S accepts the fact of separation, but is able to look forward to future gratification without distorting reality and perhaps find some alternative compensations. Again, however, if depressives are particularly threatened by separation, they should give fewer responses of active adaptation than both normals and nondepressed neurotics. Since some theorists describe depressives as unable to strive positively toward a goal, they might be expected to respond to the separation stories more often than other groups with apathy. In the early memories of depressives, feelings of abandonment should be more common and themes of gratification of dependency needs less common than in the early memories of normal or nondepressed neurotic children.

As regards the manifestations of aggression among depressive patients, all the theories outlined above would predict fewer responses involving externally directed aggression. In the aggression story completion test, these would include physical aggression, verbal aggression, conscious control of aggression and the presence of angry feelings in the hero. Thus, the depressives children might be expected to express awareness of angry feelings less often than the control groups. Both verbal aggression and conscious control of aggression

were found previously (Bildfell & Douglas, 1965) to be relatively mature response. Therefore, it may be that both groups of neurotic children will give fewer of these responses than normal children. However, once again the difference between depressives and normals should be larger than that between nondepressed neurotics and normals.

Although most theories would predict fewer responses involving physical aggression among depressive Ss, both Toolan (1962a, 1962b) and Statten (1961) have mentioned aggressive acting out behaviour as one symptom of childhood depression. Therefore, a firm prediction cannot be made about the responses of depressive children on this measure.

The group of theories which describe aggression as "turned inward" would predict some evidence of aggression directed against the self together with expressions of guilt or self blame. In the aggression story completion test, however, responses that could be coded in such a category were found very rarely in the protocols of all of the groups. Therefore, this scoring category could not be included in the analysis. In the separation story completion test aggression turned inward would be manifested in responses involving pessimism. In the early memories test it would be expressed in themes of self aggression. Thus, if aggression is "turned inward" in childhood depression these responses would be expected to occur more often in the depressive group than in the two control groups.

If depression in childhood is more correctly characterized by an inhibition of aggression which includes a reduced ability to strive

actively toward a goal, one might expect to find that compared with the two control groups, depressives will give fewer story endings involving realistic problem solving on the aggression story completion test. Again, however, as realistic problem solving has been found to be a more mature response, nondepressed neurotic children may also show a relatively low proportion of story endings in this category, but the difference should be less marked than in the depressive group.

Inhibition of aggression and/or lack of positive striving would be suggested most clearly by a large proportion of responses involving passive withdrawal on the aggression story completion test and apathy on the separation story completion test. Thus, if a lack of self assertion characterizes childhood depression, depressive children should give more responses in both these categories than normal or nondepressed neurotic children. Similarly, depressives should have fewer early memories of attempts at mastery than either control group.

Early object loss in depression

Although psychoanalytic authors have not specified that an actual loss of parental figure must occur for a patient to experience severe grief reactions and though in empirical investigations depression has not been the only form of psychopathology associated with a history of parental deprivation, the emphasis on early object loss as an etiological factor in depression has been so widespread that it seemed important to determine whether depressive children actually had experienced parental deprivation in early childhood more often than other kinds of neurotic children. Most theorists believe that children do not form a

bond to a significant person until about age six months, and that depression is associated with losses that take place after a child has established a relationship with another person. Therefore, it was predicted that a history of parental deprivation in early childhood taking place after age six months would be found more often in depressive children than in emotionally disturbed children who are not depressed.[1]

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1 Hereditary or constitutional factors in the etiology of depression have also been stressed by many authors (Abraham, 1924; Klein, 1935), Abraham going as far as to state that a constitutional factor was a necessary prerequisite to the development of depression. Therefore, an attempt was made to study the influence of heredity through an examination of the hospital files for the presence of depression or other mental illness in the relatives of patients. However, although a detailed history of patients' early life usually had been obtained, information on mental illness in the family background was quite sketchy (38% of interviewers had not asked about hereditary factors) and unfortunately the available data were not considered reliable enough to include in the investigation.

PROCEDURE

Subjects

Depressives

Twenty boys diagnosed as suffering primarily from depression, or in whom strong depressive trends were evident, were selected from the psychiatric out-patient department at the Montreal Children's Hospital. In all of these children, a sad, unhappy affective state was prominent. Diagnoses were made at psychiatric intake interviews by a number of psychiatric residents and staff members over a two year period (1963-1965). Although the distribution of sexes among depressive children who applied to the clinic actually was nearly 50/50, the sample was limited to boys, because of the difficulties involved in drawing a matching sample of children from the rest of the clinic population where boys greatly outnumbered girls.

Clinic control group

Another group of twenty children was selected from the out-patient clinic to serve as a control group for the depressive children. The boys in this group, who will be referred to as the "nondepressed neurotic group", suffered from a variety of emotional problems, but the core symptom, depressive affect, was not present in any case. A summary of the diagnoses of the clinic control group is shown in Table 1.

The two groups were equally matched for age, which ranged from eight to 13 years. The median age for depressives was 10.9 years and for nondepressed neurotics 10.3 years. Most of the Ss were tested while

TABLE 1

Diagnoses Assigned to Patients in Nondepressed Neurotic Control Group. (N = 20) [1]

Diagnostic Category	Number of Ss
Anxiety reaction	3
Adjustment reaction of childhood	3
Psychophysiological reaction	3
Eneuresis	3
Passive-Aggressive personality	4
Dyssocial reaction	2
Learning disturbance	1
Schizoid personality	1
Obsessive compulsive personality	1
Special symptom reaction	1
Emotionally unstable personality	1

1 Because some children were given overlapping diagnoses, the number of diagnoses adds up to more than the number of Ss in the group.

they were on the waiting list for treatment and thus, the only prior contact they had had with the psychiatry department was the intake interview. In order to avoid any possible influence of psychotherapy, an attempt was made to avoid using Ss who had ever received therapy. A few in each group had been given some other psychological tests previously, or had participated in another research project. However, none had had more than three interviews prior to testing and none had received drug therapy. Ss with suspected brain damage or schizophrenia were excluded from the study.

Normal control groups

Sample 1: One normal group consisted of 40 boys selected from the public school system of Montreal and its suburbs. None of these children ever had had treatment for psychological problems, or had any outstanding difficulties at home or in school. The age range, as in the clinic groups, was from 8 to 13 years (Mdn = 10.8) and the distribution of ages was the same as in the two clinic groups except that there was double the number of Ss in each age group.

Sample 2: In addition to the above group, the test results of normal boys who had taken part in another study (Bildfell & Douglas, 1965) were used to compare the results of the two clinic groups for the aggression story completion test to be described below. Twenty-seven Ss were selected from Bildfell & Douglas' larger sample to be equivalent to those described above in age, I.Q. and socio-economic status.[1]

I.Q. and socio-economic background

The subjects in the four groups did not differ significantly in pro-rated I.Q. as measured by the vocabulary subtest of the Wechsler

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1 Bildfell & Douglas' study did not include 13 year olds, so the aggression story completion test was given to five 13 year old Ss in the first normal sample.

Intelligence Scale for Children. (See Tables 2 & 3.) Table 4 shows socio-economic backgrounds for each group according to father's occupation.

TABLE 2

Comparison of I.Q.s of Depressive, Nondepressed Neurotic and Normal Ss

Subjects	Range	Mean I.Q.	Standard Deviation
Depressives N = 20	88-135	107.5	11.24
Nondepressed Neurotics N = 20	98-130	109.7	9.06
Normals (Sample 1) N = 40	89-126	107.3	10.48
Normals (Sample 2) N = 32	92-129	107.2	11.27

TABLE 3

Analysis of Variance for Data of Table 2

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F
Between	93.0	3	31.0	.26
Within	12754.5	108	118.1	ns
Total	12847.5	111		

TABLE 4

Socio-Economic Background of Depressive, Nondepressed Neurotic and Normal Ss[1]

Occupation	Depressives N = 20	Nondepressed neurotics N = 20	Normals (sample 1) N = 40	Normals (sample 2) N = 32
I Professional	2	1	4	4
II Business management	4	4	9	2
III Skilled trades & clerical	8	11	18	15
IV Semi-skilled	5	3	6	7
V Relatively unskilled	1	1	3	4

[1] Occupations are classified according to the revised scale of Warner (1949).

Design and Method

All Ss were interviewed individually. The two clinic groups and some normals were seen by the author. The rest of the normal children were tested by undergraduate students in psychology who were trained to use a standardized interviewing technique. The clinic groups were given four tests, the vocabulary subtest of the W.I.S.C. the two story completion tests and the early memories test. The same procedure was followed with the normal subjects except that the 8-12 year olds were not given the aggression story completion test because data were already available. The order of presentation of the tests was alternated in order to randomize the influence of one test on the responses to another.

Both depressive children and nondepressed neurotics were seen under identical conditions at the Montreal Children's Hospital. A compromise was necessary with normal Ss, however, who had to be seen at school or in their own homes. The normal Ss were told that the examiners were from the Psychology Department of McGill University. E stated:

> We are interested in finding out what boys your age really are like. I'm going to ask you some questions and tell you some stories about things that really happened. I'd like you to tell me how you think the boy in the story would feel and what he would do when these things happened. There are no right or wrong answers. We're not teachers and we don't care about grammar or things like that. You can say anything you want. I'll read each story aloud and you can follow along in your booklet. Then you finish the story starting where it leaves off.

The instructions for the two clinic groups were identical except that S was told that E was asking him some questions because it would help us to get to know him better.

All Ss were assured that nothing they said would be discussed with their parents or teachers.

The story completion tests were read aloud by E while the child held a second copy and was permitted to read along or not as he chose. After each story in the aggression story completion test, E asked S, "How does X feel and what does he do when this happens to him?" After each story in the separation story completion test, E asked "What happens?"

When asking for the child's early memories, E explained that he wanted to know how far back into his childhood S could remember. Would S think way back and tell what was the earliest thing in his life that he could remember. Often this was enough and S was able to recall an early memory. If he did not understand what was required, E explained that most people could not remember much of what went on in their lives when they were very young, but that often a few memories did stand out. Could he remember anything from when he was a very little child? Usually this much explanation was sufficient. After S had told one memory, he was asked if he could remember any more. Then he was asked for his earliest memory of his mother, his father and his earliest memory of school. If he asked whether E meant the first day of school, E said "Either that or whatever is the earliest thing you can remember about school. It's up to you." Responses were recorded verbatim.

The Vocabulary subtest of the WISC was administered according to standard instructions (Wechsler, 1949). Subtest scores were prorated to give an estimate of I.Q.

Data from the story completion tests were analyzed in the following way: after all the story endings had been scored the total number

of times each scoring category was coded for each group of Ss was recorded. Because the number of Ss in the three groups was not equal,[1] these frequencies were converted to percentages. For instance, the percentages for the separation story completion test were derived as follows: since the test consisted of six stories, theoretically each S could give a particular story ending six times. Thus the total number of times a particular scoring category could be scored for one group of Ss would be six times the number of Ss in the group. For instance, the 40 normal children supplied six story endings each, thus making the total number of story endings by normal Ss 240. If 28 of these story endings were coded as "denial", then the proportion of story endings in the normal group which contained this response would be 28/240 or 11.7%. Percentages of story endings scored in each of the scoring categories for the aggression story completion test were derived in the same way.

In order to render the data suitable for statistical analysis by chi-square, they were organized as follows: it was found that some scoring categories tended to occur more frequently than others, and that most Ss gave at least one story ending coded in these categories. So with these categories the data were divided into the number of Ss who gave a particular response once or not at all versus the number who gave

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1 There were twice as many Ss in the normal group as there were in the clinic groups. Also due to various external factors a few Ss in the clinic groups were not given both story completion tests.

it two or more times. These categories were: "denial", active adaptation (separation story completion test) physical aggression, verbal aggression, realistic problem solving and passive withdrawal (aggression story completion test). With categories which occurred relatively infrequently, the data were divided into the number of Ss whose story endings did versus those whose story endings did not contain the response category. These categories were; excessive optimism, pessimism, apathy, (separation story completion test) awareness of accident, conscious control of aggression, and dependency (aggression story completion test).

In the aggression story completion test, following each story, Ss were asked specifically how the hero would feel. Responses were classified as either sad or angry. For the statistical analysis, Ss were divided into two groups - those who gave a majority of responses where the hero felt sad and those who gave a majority of responses where the hero felt angry. Then chi square tests were done comparing Ss who scored higher on sadness versus those who scored higher on anger.

Early memories: After the early memories had been scored the data from each S were scored for the presence or absence of each theme category. Because the groups were of unequal sizes the numbers were converted to percentages. Then the data were divided into the number of Ss in each group whose early memories did contain versus those whose early memories did not contain each theme category and chi square tests of significance were performed. Contingency tables for all tests are found in Appendix C. Yates Correction for Continuity was employed on all 2 x 2 comparisons.

History of parental deprivation

Histories of parental deprivation were examined a) in the two clinic groups taking part in the experiment and b) in a larger sample of patients taken from the files of the treatment waiting list at the Montreal Children's Hospital.[1] Separation from either parent up to age eight years was recorded. "Separation" was defined as one lasting at least six months where the child did not see the parent. Age eight was chosen as an upper limit because this was the age of the youngest S who took part in the study and because it seemed a reasonable demarcation line between early and late childhood. Age six months was chosen as a lower limit because most authors agree that the capacity to form a bond to another person (usually the mother develops at about age six months. Cases where children were institutionalized from birth up to age six months and who theoretically had not had an opportunity to form a bond to a continuous mother figure, were noted separately.

In the first sample, the parent who accompanied the child (usually the mother) was asked "What is the longest time that X has been away from you?" The circumstances surrounding any separations were discussed and the parent was then asked about any separation from the other parent. Because of the small sample no attempt was made to classify the causes of the separation for statistical analyses. Rather, a brief description of the experience of each S was recorded.

In the study of the larger sample of patients taken from hospital files

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1 Unfortunately, it was not possible to collect similar data from the normal control group. Since most normal children were seen at school, parents were not available for questioning.

separations were classified according to the reason for the separation and the experience of the child following separation from a parent. An attempt was also made to compare the effects of maternal and paternal deprivation.

RESULTS

Separation story completion test

Table 5 shows percentages of story endings coded in each scoring category for the three groups of Ss. Table 6 shows chi square tests of significance between (i) depressive and normal, (ii) depressive and nondepressed neurotic and (iii) nondepressed neurotic and normal Ss.

The statistical analysis revealed the following results:

"denial" of the threat of separation: Depressives denied the threat of separation significantly more often than normals ($P < .05$), but did not differ significantly from nondepressed neurotic Ss. There was no significant difference between normal and nondepressed neurotic Ss.

excessive optimism: There were no significant differences among any of the groups.

pessimism: There were no significant differences among the three groups.

active adaptation: Both depressive and nondepressed neurotic Ss gave significantly fewer responses involving active adaptation to separation than normal children. The difference between depressives and normals was significant at $P < .001$, and between nondepressed neurotics and normals at $P < .01$. There was no significant difference between depressive and nondepressed neurotics.

apathy: Depressive Ss gave more responses involving apathy than either nondepressed neurotic children ($P < .05$) or normals ($P < .001$).

The difference between normal and nondepressed neurotic children was not significant.

In summary, depressives were differentiated from both normal and nondepressed neurotic control groups by their high frequency of responses involving apathy. Depressives gave significantly more responses than normal children coded as "denial", while the nondepressed neurotic children stood between the depressive and normal Ss on this measure and did not differ significantly from either group. Both depressive and nondepressed neurotic children gave fewer responses than normal Ss involving active adaptation. There were no significant differences among any of the groups on excessive optimism or pessimism.

Aggression story completion test

Table 7 shows percentages of story endings obtained from each group. Chi square tests of significance appear in Table 8 . The results are summarized as follows:

physical aggression: There were no significant differences among any of the groups.

verbal aggression: Depressive children showed less verbal aggression than normal Ss, ($P < .05$). However, there was no significant difference between depressive and nondepressed neurotic Ss, or between nondepressed neurotic and normal Ss.

realistic problem solving: Story endings involving realistic problem solving were comparatively rare among depressive children, being found in only 9.7% of their story endings whereas the corresponding percentages for normals and nondepressed neurotics were 34% and 22 .9%

respectively. The difference between depressive and normal Ss was significant at $P < .01$ and between depressives and nondepressed neurotics at $P < .05$. There was no significant difference between normal and nondepressed neurotic Ss.

awareness of accidental nature of aggression: (Scored only in stories where aggression was accidental) Depressive children expressed awareness of the accidental nature of aggression significantly less often than normals, ($P < .01$). Nondepressed neurotic Ss stood between normals and depressives and were not significantly different from either group.

conscious control of aggression: This type of response was found infrequently among normal Ss (in 5.9% of their story endings) and not at all in the protocols of either depressive or nondepressed neurotic children. The difference between each clinic group and normals was significant at $P < .05$.

dependency: Nondepressed neurotics gave responses involving dependency significantly more often than normal Ss, ($P < .001$). There was no significant difference between nondepressed neurotic and depressive Ss or between normal and depressive Ss on this measure.

passive withdrawal: Depressive children responded much more frequently with passive withdrawal than either normal or nondepressed neurotic Ss. In fact this was the depressive Ss' most characteristic response, nearly one half (45.1%) of their story endings being coded in this category. The corresponding percentages for normals was 9% and for nondepressed neurotics 16%. The difference between depressives and normals was significant at $P < .001$ and between depressive and nondepressed neurotics at $P < .01$. There was no significant difference between normal and nondepressed neurotic Ss.

expression of affect: Both depressive and nondepressed neurotics, more often than normals, described the hero as feeling sad rather than angry when he was aggressed against. The difference between depressives and normals was significant at $P < .01$ and between nondepressed neurotics and normals at $P < .02$. There was no significant difference between depressive and nondepressed neurotic Ss.

In summary, depressives were differentiated from both normal and nondepressed neurotic Ss by, a) a high frequency of responses involving passive withdrawal and b) a low frequency of responses coded as realistic problem solving. Compared with normals, depressives less often gave responses involving verbal aggression and awareness of the accidental nature of aggression, but were not significantly different from nondepressed neurotics on either of these measures. Normal Ss gave responses involving conscious control of aggression more often than either of the clinic groups. There were no significant differences among any of the groups on physical aggression. Nondepressed neurotic children gave story endings involving dependency more often than normal Ss. On this measure, depressive Ss stood between the two control groups and were not significantly different from either. Compared with normals, both clinic groups more often portrayed the hero as reacting with sadness rather than anger.

Early memories

Table 9 shows percentages of each group whose early memories contained each theme category. Chi square tests are reported in Table 10. The following results were obtained:

gratification of dependency needs: when compared with the normal group, significantly fewer Ss in both the depressive and nondepressed neurotic groups had early memories of gratification of dependency needs, ($p < .01$ and $P < .05$ respectively). There was no significant difference between the two clinic groups.

feelings of temporary abandoment: memories of abandonment were significantly more frequent in the memories of both depressive and nondepressed neurotic children than in those of normal Ss. The difference was significant at $P < .001$ for depressives and $P < .01$ for nondepressed neurotics. There was no significant difference between depressive and nondepressed neurotic Ss.

feelings of deep seated frustration of dependency needs: early memories scored in this category did not occur in the protocols of normal or nondepressed neurotic Ss. However, they did occur in the memories of some (15%) depressive children. Tests of significance were not performed because of low expected frequencies.

attempts at mastery: early memories involving attempts at mastery were very rare in the depressive group. Themes of this type occurred in the early memories of only 10% of depressives, but were quite common among the other groups, (70% of normal and 65% of nondepressed neurotic Ss). The difference between depressive and normal Ss was significant at $P < .001$; between depressive and nondepressed neurotics at $P < .01$. There was no significant difference between normal and nondepressed neurotic Ss.

pseudo-independency; nondepressed neurotic children more often had memories containing this theme than depressives ($P < .001$). There

was no significant difference between nondepressives and normals, or between depressive and normal Ss.

self aggression; hurting oneself: depressive children had memories coded in this category more often than normal Ss, ($P < .01$). There was no significant difference between depressives and nondepressed neurotics. Although nondepressed neurotic children tended to have early memories coded in this category more often than normals ($X^2 = 3.37$, $P < .10$), the difference between these groups did not reach significance.

There were no significant differences among any of the groups on the following measures: acting independently with help; watching independent activities of others; being the object of a severe attack; being the object of a mild attack; being attacked, but retaliating; observance of aggression.

In summary, both depressive and nondepressed neurotic groups reported early memories of gratification of dependency needs less often and themes of temporary abandonment more often than normals. A small proportion of depressive Ss (15%) had early memories involving deep seated frustration of dependency needs, a theme which did not occur in the control groups. Depressive Ss were differentiated from both control groups by the relative absence in their early memories of themes involving attempts at mastery. Themes of self aggression occurred more often among depressives than normal Ss, but depressives were not significantly different from nondepressed neurotics on this measure. Nondepressed neurotics gave memories coded as pseudo-independence more often than depressives but not more often than normal Ss.

TABLE 5

Separation Story Completion Test: Percentages of Story Endings Scored in the Various Scoring Categories for Depressive, Nondepressed Neurotic and Normal Ss

Scoring Categories	Depressives N = 17	Nondepressed Neurotics N = 18	Normals N = 40
	%	%	%
Denial	24.5	13.0	11.7
Excessive optimism	6.9	15.7	5.0
Pessimism	5.9	6.5	11.7
Active adaptation	33.3	38.9	59.6
Apathy	19.6	6.5	4.2

N.B. Scoring categories were created for responses that occurred most often. Responses which occurred only infrequently were not included. Therefore percentages do not add up to 100.

TABLE 6

Separation Story Completion Test: Chi Square Tests of Significance Between Depressive and Normal, Depressive and Nondepressed Neurotic and Between Nondepressed Neurotic and Normal Ss.

Scoring Categories	Depressives vs Normals	Depressives vs Nondepressed Neurotics	Nondepressed Neurotics vs Normals
Denial	4.30 *	1.51	.00
Excessive optimism	.03	.81	1.87
Pessimism	.53	.05	.80
Active adaptation	14.66 ***	.24	8.44 **
Apathy	12.47 ***	6.46 *	.01

* Significant at $P < .05$
** Significant at $P < .01$
*** Significant at $P < .001$

TABLE 7

Aggression Story Completion Test: Percentages of Responses Coded in Each Scoring Category for Depressive, Nondepressed Neurotic and Normal Ss.

Scoring Categories	Depressives N = 18	Nondepressed Neurotics N = 18	Normals N = 32
	%	%	%
Physical aggression	11.8	17.3	19.5
Verbal aggression	18.1	20.8	34.0
Realistic problem solving	9.7	22.9	34.0
Awareness of accident	1.4	4.2	9.4
Conscious control	0	0	5.9
Dependency	9.0	17.3	5.1
Passive withdrawal	45.1	16.0	9.0
Expression of Affect			
Sadness	72.0	66.0	49.7
Anger	36.0	34.0	47.3

TABLE 8

Aggression Story Completion Test: Chi Square Tests of Significance Between Depressive and Normal, Depressive and Nondepressed Neurotic and Between Nondepressed Neurotic and Normal Ss.

Scoring Categories	Depressives vs Normals	Depressives vs Nondepressed Neurotics	Nondepressed Neurotics vs Normals
Physical Aggression	2.02	1.13	.02
Verbal Aggression	5.15 *	.11	2.26
Realistic Problem Solving	10.50 **	4.33 *	.39
Awareness of Accident	7.99 **	.71	2.70
Conscious Control	6.02 *	-	6.02 *
Dependency	1.54	3.12	11.94 ***
Passive Withdrawal	28.48 ***	10.13 **	3.26
Expression of Affect			
Sadness vs Anger	8.38**	.00	6.32*

* Significant at $P < .05$
** Significant at $P < .01$
*** Significant at $P < .001$

TABLE 9

Early Memories: Percentages of Ss Whose Early Memories Contained each Theme Category

Theme Category	Depressives N = 20	Nondepressed Neurotics N = 20	Normals N = 40
	%	%	%
Gratification of dependency needs	50	55	85
Temporary Abandonment	70	60	20
Deep seated frustration of dependency needs	15	0	0
Attempts at mastery	10	65	70
Acting independently with help	10	15	25
Pseudo-independence	5	25	7.5
Watching independent activities of others	25	30	22.5
Being the object of severe attack	35	20	12.5
Being the object of mild attack	15	25	32.5
Being attacked, but retaliating	10	5	22.5
Self aggression	50	40	15
Observance of aggression	20	10	17.5

TABLE 10

Early Memories: Chi Square Tests of Significance.

Theme Category	Depressives vs Normals	Depressives vs Nondepressed Neurotics	Nondepressed Neurotics vs Normals
Gratification of dependency needs	6.66 **	.00	4.90 *
Feelings of temporary Abandonment	12.28 ***	.11	7.88 **
Deep seated frustration of dependency needs	-	-	-
Attempts at mastery	16.87 ***	10.66 **	.10
Acting independently with help	1.05	.23	.31
Pseudo-independency; showing off	.13	12.55 ***	2.18
Watching independent activities of others	.00	.00	.10
Being the object of severe attack	2.92	.50	.15
Being the object of mild attack	1.25	.16	.09
Being attacked but retaliating	.72	-	1.76
Self aggression, hurting oneself	6.66 **	.10	3.37
Observance of aggression	.00	.69	.72

* Significant at $P < .05$
** Significant at $P < .01$
*** Significant at $P < .001$

Measures of verbal productivity

In order to determine whether the verbal productivity of the depressives on the tests was lower than that of the other two groups word counts were made of story endings and the mean number of memories per child in each group was calculated.

Story completion tests - word counts: For both the separation story completion test and the aggression story completion test the protocols of ten Ss from each group, depressives, nondepressed neurotics and normals, were selected at random. The number of words per story ending of two stories (nos. 2 & 5) of each test were counted. Since the lengths of story endings were not normally distributed, three way median tests of significance were performed. (Siegel, 1956) Table 11 shows the results of this analysis.

TABLE 11

Range and Median Number of Words per Story Ending: Depressives, Nondepressed Neurotic and Normal Ss. N = 60 df = 2.

Tests	Depressives N = 20		Nondepressed Neurotics N = 20		Normals N = 20		
	Range	Mdn	Range	Mdn	Range	Mdn	X^2
Separation Story Completion Test	14-49	28	13-97	37	18-150	52	12.30 *
Aggression Story Completion Test	8-67	19.5	14-144	27	9-70	19.7	.94

N refers to number of story endings analyzed
* significant at $P < .01$

The results showed that for the aggression story completion test, there were no significant differences between the three groups in the median number of words per story ending. However, the difference between the three groups for the separation story completion test was significant at the .01 level of confidence. Therefore, two way median tests were performed between depressives and normals, nondepressed neurotics and normals and between depressive and nondepressed neurotic Ss. The X^2 values obtained showed that the difference between depressive and normal Ss was significant at $P < .001$ ($X^2 = 12.33$) but that there was no significant difference between depressive and nondepressed neurotics ($X^2 = 3.64$) or between nondepressed neurotic and normal Ss ($X^2 = 3.60$). Thus, although depressive children did give shorter story endings to the separation stories than the normal Ss, they were not significantly different from nondepressed neurotics.

Early memories: The mean number of memories for depressive children was 3.9, for nondepressed neurotics, 3.2 and for normals, 4.1. Since depressives obviously did not produce fewer memories than nondepressed neurotics, and the mean number of memories reported by depressives was almost equal to that of normal Ss, further statistical analysis was not done.

Summary: The results of the word counts showed that although depressives gave shorter story endings than normals to the separation story completion test, they were not significantly different from nondepressed neurotics on this test. Depressives were not significantly different from either of the other two groups on the number of words per story ending to the aggression story completion test, nor did they produce fewer early memories than the other groups. It can be concluded therefore, that there was no

general tendency for depressives to be less verbally productive than the other children who took part in the study.

History of Parental Deprivation

Parental deprivation in small sample

An examination of the histories of the two clinic groups showed that both depressive and nondepressed neurotic Ss had, in many cases, suffered some form of parental deprivation in early childhood, (see Table 12).

TABLE 12

Separation Experiences of Depressive and Nondepressed Neurotic Children Serving as Ss.*

Type of Separation	Depressives N = 20		Nondepressed Neurotics N = 20		X^2
	N	%	N	%	
Separated from either parent	9	45	5	25	1.75
Separated from Mother or both parents	7	35	1	5	2.77
Separated from Father, but not from Mother	2	10	4	20	.20

* Separation lasting a minimum of six months and occurring between age six months and eight years.

Out of the 20 Ss in each group nearly one half of depressives and one fourth of nondepressed neurotics had been separated from one or both parents for more than six months between the age of six months and eight

years.[1] Although the proportion of depressive Ss was much higher than that of nondepressed neurotics, the difference between the two groups did not reach statistical significance. However, an inspection of the kinds of separation experiences undergone by each group might suggest that depressives had suffered more severe deprivations. (See Appendix B). Seven of the nine depressives who had been separated, suffered maternal deprivation or loss of both parents, due to foster home placement, but only one of the five nondepressed neurotics had been separated from his mother. Four out of the five nondepressed neurotics who had been separated lost their fathers, but continued living with their mothers compared with two out of the nine depressives.

Since the number of Ss in the sample was so small it was almost impossible to find a statistically significant difference between the two groups. However, the proportions of children who had been separated from a parent, especially the mother seemed much higher in the depressive group. Therefore, the case histories of a larger sample of neurotic children were examined for the incidence of early separation experiences. Children suffering from depressive symptoms were compared with all other kinds of children with emotional disturbances. A preliminary analysis showed that sex differences did not influence the results, so both boys and girls were included in the analysis.

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1 One nondepressed neurotic had been separated from his father from birth to age two years, but had lived continuously with his mother.

Parental deprivation in the larger sample taken from clinic files.

Table 13 shows that in the larger sample, about one half (50.7%) of depressive Ss and about one fourth (23%) of nondepressed neurotics had experienced some form of parental deprivation lasting at least six months before they reached age eight years. These proportions are almost the same as those found previously in the smaller sample. (See Table 12.) With a large number of Ss, however, the difference between the groups becomes highly significant, ($P < .001$).

For almost every type of separation, that is due to death, to divorce, desertion or illness or to foster home placement, the percentage of depressive Ss was significantly higher than that of nondepressed neurotics, ($P < .05$ in each case). Furthermore, of children who had had the experience of being in more than one foster home, a significantly greater number were depressed ($P < .01$).

The only exception involved cases where a child had been institutionalized from birth up to age six months. A slightly higher proportion of nondepressed neurotics had had this experience, but the numbers of Ss in each group was too small for a chi square test to be performed.

Experiences following death or divorce, etc.

Table 14 shows that of those children who stayed with one parent following the loss of the other, there was no significant difference between the numbers of depressive and nondepressed neurotic Ss. However, a significantly higher proportion of depressive children had been placed in a foster home for at least six months following a death, divorce, desertion or illness, ($P < .001$).

Paternal versus maternal deprivation

An examination of the data showed that it was difficult to make a clearcut distinction between mother loss and father loss. Foster home placements (which obviously involve the loss of both parents) were very common especially among depressive children. Table 15 shows that there was no significant difference between the number of depressive and non-depressed neurotic children who had lost their father, but had lived continuously with their mother. The percentage of children in each group who had been separated from the mother, but lived continuously with the father was so small that a chi square test could not be performed. However, as the percentages were almost identical, it can be assumed that there was no significant difference between the two groups. A much larger proportion of depressive children had experienced foster home placement, either as a sequel to parental death, divorce, desertion, etc. or for reasons other than the breakup of a previously intact home. Here, the difference between the two groups was highly significant ($P < .001$).

TABLE 13

Early Parental Deprivation: Depressive and Nondepressed Neurotic Children (Clinic Files).

Type of Separation	Depressives N = 71	Nondepressed Neurotics N = 185	X^2
	%	%	
Death of a parent	11.3	3.8	5.32 *
Divorce, desertion or illness	23.9	12.3	5.33 *
Foster home not because of parent's death, divorce, etc.	12.7	3.7	5.61 *
Institution from birth to age six months or more	2.8	3.2	-
Total: Experienced some form of separation from one or both parents	50.7	23.2	19.87***
Experienced more than one foster home placement	18.3	5.4	10.45 **

* $P < .01$
** $P < .05$
*** $P < .001$

TABLE 14

Experience of Children Following the Loss of One Parent Due to Death, Divorce, Desertion or Illness.

	Depressives N = 71	Nondepressed Neurotics N = 185	X^2
	%	%	
Stayed with the remaining parent	11.3	11.3	.00
Placed in foster home for a period of over six months following loss of one parent	23.9	4.8	18.48***

*** Significant at P $<$ .001

TABLE 15

Paternal Loss versus Maternal Loss

	Depressives N = 71	Nondepressed Neurotics N = 185	X^2
	%	%	
Separated from father, but lived continuously with mother	8.5	8.6	.00
Separated from mother, but lived continuously with father	2.8	2.7	-
Lost both parents for a period of at least six months due to foster home placement(s)	39.4	11.9	22.80***

*** Significant at P $<$ .001

DISCUSSION

One purpose of the present investigation was to determine whether a sample of depressive children had a characteristic way of responding in two conflict areas thought to be important in the dynamics of depression. The two areas chosen for special consideration were reactions to the threat of separation from a parent or familiar surroundings and modes of dealing with aggression. Various assumptions made by clinicians about depression were tested by means of story completion tests and a collection of Ss' early childhood memories.

Because the loss of an important love object, particularly the mother, in early childhood has been emphasized as an etiological factor in depression, another aim of the investigation was to determine whether a sample of depressive children had experienced early object loss more often than neurotic children in other diagnostic categories. The data on early object loss will be considered first.

The Influence of Early Parental Deprivation

An analysis of the histories of the large sample of patients taken from hospital files confirmed the trends previously found in the smaller sample. These data support the hypothesis that early separation experiences are more common among depressive than nondepressed neurotic children. (See Table 13) The results showed that this was true for almost every type of deprivation considered, including loss from such causes as parental death, divorce, desertion, illness and foster

home placement. The only exception was where children had been brought up in an institution from birth until age six months or longer. A few Ss in each group had had this experience, the nondepressed neurotics showing a slightly higher proportion than depressives, but numbers were too small for statistical analysis. Most authors who link depression with the loss of an important love object imply that a tie to a love object must already have developed for depression to ensue. According to most theorists, the capacity to form a bond to one person does not develop until about age six months. Thus, one would not expect to find a preponderance of depressives among children who had been institutionalized from birth.

Apart from this early institutional experience, it would seem that separation experiences were not only more widespread, but more severe among depressive children. There was no significant difference between proportions of depressive and nondepressed neurotic children who, after the loss of one parent, stayed with the remaining one. However, a significantly larger proportion of depressives had been placed in a foster home or homes following the breakup of a previously intact home. (see Table 14) Foster home placement would seem to intensify the effects of the initial loss. It entails losing both parents as well as familiar surroundings. In addition, the child must adjust to new foster parents and in some cases to even further placements in new foster homes. A significantly larger number of depressives had experienced more than one foster home placement.

An attempt was made to separate the effects of maternal from paternal deprivation. However, this was not feasible. Some children

in each group had experienced only mother or father loss, but for the majority, loss of one parent was followed by foster home placement. This was particularly true of the depressive group. (39.4% of depressives versus 11.9% of nondepressed neurotics $P < .001$) (See Table 15).

A possible objection to the findings of this investigation is that the results might have been influenced by current interest in early parental deprivation as an etiological factor in depression. It could be argued that an admitting psychiatrist, knowing that a child has lost a parental figure, might be more inclined to diagnose depression. It is difficult to be certain that this bias was not operating in the larger sample. However, in the smaller sample, every effort was made to avoid this difficulty. For a child to be diagnosed as depressed, it was essential that the most striking symptom was a severe and persisting sad mood. Similarly, for a child to be included in the nondepressed neurotic sample, equal care was taken to exclude children in whom an unhappy affective state was present. As already noted, there was a striking similarity between the small and large samples in the proportions of depressive and nondepressed neurotic Ss who had experienced parental deprivation.

Although the results showed that early object loss was more frequent among depressives than among nondepressed neurotics, the figures suggest that the incidence of deprivation, even among the nondepressed neurotic children was unusually high. As noted before, parental deprivation has been found in patients with forms of psychopathology other than depression (Brown, 1966; Brown et al, 1962; Fitzgerald, 1948;

Earle & Earle, 1961). Unfortunately, data from a normal sample could not be obtained. However, Witmer (1965) gave figures on parental loss for the general population of the United States for 1961. Witmer reported that 4.3% of children up to age 18 had lost one parent by death and about 15% were living apart from one or both of their natural parents. The data from the present study are not directly comparable with Witmer's for various reasons. The populations of Montreal and the United States may differ. Many of the children in the present sample had become reunited with their own parents at the time the data were collected. However, in the present investigation, it was found that 11.3% of depressives and 3.8% of nondepressed neurotics had lost a parent by death before the child reached age eight. About one fourth (23%) of nondepressed neurotics and about half (50.7%) of depressives had lived or were living in a broken home by the time they had reached eight years of age. So it seems likely that separation from a parent, though much more frequent among depressives, is probably also more widespread among nondepressed neurotic children than in the general population.

In summary, though parental deprivation was found in both clinic groups, it occurred significantly more frequently among the depressives. Thus, the results of the present investigation lend support to theories which postulate a relationship between early object loss (after a child has reached age six months) and depression. In the present sample of depressives it was also clear that the separations they experienced were frequently associated with single or multiple foster home placements. In future actuarial studies, it is suggested that attention should be

given to what happens to a child following the loss of one parent. It seems important to differentiate between the loss of the mother or father per se and the loss of both parents plus the possible accompanying disruptions caused by removal from the home.

Reactions of Depressive Children Revealed by Tests

A reaction which emerged very clearly in the responses of depressive children to all three tests was what might be called in inhibition of positive striving or a lack of active self assertion. On the aggression story completion test, depressives gave fewer responses than either control group involving realistic problem solving, a response that requires a child to visualize the possibility of persisting to a goal in a non-hostile way in spite of an aggressive attack. Depressives, more often than either control group, depicted the hero as reacting to the aggression with passive withdrawal. On the separation story completion test, depressives were differentiated from both normal and nondepressed neurotic children by their high frequency of responses coded as apathy. In this type of ending, S may feel unhappy about the situation, but he describes no active effort on the part of the hero to cope or adjust to it. Similarly, in their early memories, a very low proportion of depressive children reported memories which involved attempts at mastery, a theme quite common among both normal and nondepressed neurotic children.

This overall pattern suggests that an outstanding characteristic of the depressive child is his attitude of withdrawal and hopeless resignation. Depressive children seem unable to employ constructive energy to overcome conflicts or attain goals. Such attitudes emerge not only when the children are confronted with stress situations as in the story completion tests, but also appear spontaneously in their early memories.

The possibility was considered that these attitudes of withdrawal

and apathy shown by depressives might be due to a general lack of energy in depression and not imply feelings of resignation or hopelessness. If this lack of energy extended to verbal productivity, depressive children would be expected to give fewer early memories and shorter story endings than control groups. However, word counts of the story endings showed that though depressives gave shorter endings than normal Ss to the separation story completion test, they were not significantly different from nondepressed neurotics on this test. Depressives did not give shorter story endings to the aggression story completion test than the other two groups, nor did they report fewer memories. So, if verbal productivity is a valid criterion of activity level, their responses cannot be attributed solely to a lack of energy; there seems, rather, to be a genuine qualitative difference in the responses of depressive children.

Thus, the results lend strong support to theories such as those of Bibring (1953) and Sandler & Joffe (1965) which describe depression as being distinguished by a generalized inhibition of drive and ego functions where a child shows attitudes of capitulation and retreat, (Sandler & Joffe, 1965) or as an expression of an emotional state of helplessness (Bibring, 1953).

Theories which describe an inhibition of hostile aggression in depression (Klein, 1935, 1940; Bowlby, 1960) received some support from the findings. However, this is a characteristic shared to some extent with other kinds of neurotic children. It was predicted in the aggression story completion test, that depressives would show less verbal aggression and less conscious control of aggression than control

groups. It was also anticipated, however, since verbal aggression and control of aggression were among responses previously found to be relatively mature (Bildfell & Douglas, 1965) that nondepressed neurotics as well as depressives might produce fewer of these responses than normal children. Thus, it was expected that verbal aggression and conscious control would be most common among normals and least common among depressives and that nondepressed neurotics would fall somewhere between the other two groups. The results showed that the proportions of story endings given by the three groups did tend to fall in the predicted direction, but although the differences between depressives and normals were statistically significant, the differences between depressive and nondepressed neurotics were not. It was also predicted that depressives would be less likely than either control group to describe the hero as feeling angry when aggressed against. The results showed that both depressives and nondepressed neurotics were more inclined to describe the hero as sad rather than angry.

Since, contrary to most theories, Statten (1961) and Toolan (1962a, 1962b) have mentioned aggressive acting out behaviour as a symptom of childhood depression, no prediction was made about the occurrence of physical aggression responses in depressive children. The results showed that depressives were not significantly different from either control group on this measure. Thus, there is no evidence that depressives cannot express physical aggression, at least in a projective situation. However, the more mature forms of externally directed aggression, verbal aggression and conscious control, are relatively infrequent among nondepressed neurotics as well as among depressive children.

Some theories describe aggression in adult depressive patients as turned inward against the self and state that depressives are prone to feelings of guilt and self blame. If this assumption is true of childhood depression, then the depressive group should have given more responses such as pessimism on the separation story completion test and self aggression in early memories. However, the findings from the separation story tests showed that depressives did not produce more story endings involving pessimism than other children. Although they reported early memories of self aggression more often than normal Ss, they were not significantly different from nondepressed neurotics on this measure. It should also be noted that a preliminary analysis of responses to the aggression story completion test revealed that aggression turned inward occurred too infrequently in all of the groups to be included in the analysis. The results would seem to indicate then, that aggression turned inward, at least as defined in the present study is not particularly characteristic of childhood depression.

It may be that the stimulus stories used in the present investigation were not appropriate for eliciting attitudes of guilt and self blame. In an earlier pilot study, however, another story completion test was tried out which might have been more appropriate. The test describes various situations where something unfortunate happens to the hero. In each situation it is possible for S to blame either the hero (a boy of Ss age) or another person (sometimes a child; sometimes an adult.) In the pilot study, depressive children did not show a greater tendency than normal children to have the hero blame himself for the difficulty. The early memory protocols of all Ss were also examined

for situations where the child remembered himself as doing something that made him feel guilty or remorseful, but such themes were very rare and were not found among depressive children more than others.

Therefore, it seems likely that aggression turned inward is not a prominent feature of depression in children. Perhaps childhood depression differs from adult depression in this respect. McPartland & Hornstra (1964) in their description of adult depression spoke of three "messages" sent by depressives that varied with the severity of the depression. The "helpless-hopeless" theme found in the least severe depressions, resembles the reactions found in the present study among depressive children. The "worthless, evil; self accusatory" theme was described by McPartland and Hornstra as symptomatic of the most severe depressions. Possibly children do not develop depressions as severe as those in adults. Another possibility is that the capacity to feel guilt and to blame oneself might develop only later in life.

Reactions to the threat of separation

It was expected that if "separation anxiety" is especially prominent in the personality structure of depressive patients, depressive children would show more maladaptive reactions to the threat of separation than both normal and nondepressed neurotic children. Thus, various predictions were made as to how depressive children would handle the separation story completion test. Although it was expected that both neurotic groups would give fewer responses involving active adaptation to a separation than normals and more responses of "denial", it was predicted that the differences would be more marked in the depressive

group. It was also predicted that if depression is characterized by attitudes of passive resignation, depressives would respond more frequently than either control group with apathy.

In their early memories, it was hypothesized that fewer depressives would report memories involving gratification of dependency needs and more depressives would give memories involving temporary abandonment than either control group.

The predictions received some support, but the findings were not as striking as expected. On the separation story completion test depressives did use "denial" more often than normal Ss, but nondepressed neurotics stood between normal and depressive Ss and were not significantly different from either group. Both depressive and nondepressed neurotics responded with active adaptation less often than normal Ss, but the two clinic groups were not significantly different from each other.

Analysis of the early memories revealed that fewer Ss in both clinic groups gave memories of gratification of dependency needs and normals; a larger number in both clinic groups gave memories of temporary abandonment.[1] Again the depressive and nondepressed neurotics did not

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1 Although some children in both clinic groups had experienced parental deprivation in early childhood, in no case did a child report an early memory of one of his own major separation experiences. Most memories were concerned with relatively innocuous forms of abandonment. Many analysts would suggest that memories such as these are "screen memories" (Freud, 1917a) and reflect the child's current attitudes toward himself and his world, rather than being accurate recollections of past experiences.

differ significantly from each other on either of these comparisons. Thus, in contrast with normal Ss, both clinic groups show evidence of insecurity over abandonment. A small number of depressive children reported early memories of deep seated frustration of dependency needs accompanied by feelings of helplessness, a theme not found in the protocols of either normal or nondepressed neurotics. This last theme catetory may indicate strong anxiety over separation, but even in the depressive group it occurred very infrequently.

The only response on the separation story completion test that clearly differentiated depressives from both control groups was apathy, a response that depressives gave more often than either of the other groups. But this response may be more indicative of the general attitudes of passive resignation noted previously in the discussion of aggression, than of a particular anxiety over separation.

Thus, the results suggest that though depressives do react less adaptively to separation and show more concern over abandonment than normal Ss, nondepressed neurotic children tend to show a similar pattern. The main difference between the two groups would seem to lie not so much in their reactions to separation as in the way in which they cope with this stress situation as well as with others. What appears most important is that depressives react with hopelessness and apathy while nondepressed neurotics do not.

The data examined previously on the early histories of these children may suggest one possible reason for depressive children's reactions of hopeless resignation. It was found that they had experienced parental deprivation in early childhood more often than nondepressed

neurotics and that usually the kind of deprivations suffered by them were more severe. Separation obviously is not the only factor predisposing to depression. About one half of the depressive Ss had not been separated from either parent. Also, depression is not the only form of psychopathology associated with parental deprivation. Indeed, some children probably undergo separations without developing any kind of severe psychopathology. But if separation from a parent has an etiological influence on depression, perhaps a decisive factor is a feeling of total helplessness accompanying the separation. Bibring (1953) suggested that the most frequent factor predisposing to depression is an early experience of extreme helplessness. Although Bibring did not give examples of such experiences, it is likely that a prolonged separation from a parent would constitute such an experience.

Another possible etiological factor which could not be explored in the present investigation, is the role of hereditary or constitutional influences in depression. As early as 1924, Abraham stated that depression occurred only in individuals with a constitutional predisposition. Perhaps, it is only children with such a predisposition who respond to traumatic events with hopelessness and depression.

SUMMARY

The reactions of a group of twenty depressive boys were examined in two conflict areas thought to be important in the dynamics of depression. These were reactions to the threat of separation and modes of dealing with aggression. Test instruments were two story completion tests and a collection of Ss' earliest childhood memories.

Control groups were 40 normal boys and 20 boys who, though emotionally disturbed, did not show symptoms of depression. Ss were matched for age, I.Q. and socio-economic status. The age range was from eight to 13 years.

Story endings and early memories were analyzed for various types of reaction. Depressive children were differentiated from both control groups on a number of responses which suggested attitudes of passive withdrawal and an inhibition of active goal directed behaviour. The findings suggest that the depressive reaction in childhood is characterized by feelings of hopelessness and an inability to assert oneself positively.

In comparison with normal Ss, both clinic groups showed evidence of insecurity over separation and abandonment.

An examination of the early histories of a larger sample of depressive and nondepressed neurotic children revealed that depressive children had suffered parental deprivation between age 6 months and eight years more often than nondepressed neurotics.

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APPENDIX A

Stimulus Stories for Separation Story Completion Test and Aggression Story Completion Test.

SEPARATION STORIES

One day Johnny came home from school and found his mother talking on the telephone. Her face looked very serious. When she had finished talking she called Johnny and said: "Johnny, that was Uncle Bill. He says that Aunt Alice is very sick and he has asked me to come and take care of her. I must leave this afternoon. But that means that I won't be able to be with you and Daddy for awhile."

Jimmy is five years old and today is his first day at school. He has been looking forward to going to school, but just as his mother says goodbye to him and starts to leave him at school, he suddenly feels very queer and decides that he doesn't want to stay. He starts crying very hard. His mother stops at the door and looks back at him with a funny expression on her face.

Arthur, his mother and his best friend are going to a big amusement park for a day's outing. Arthur's mother warns him before they go that he must be very careful to keep an eye on her and not wander away because he might get lost as he has done a couple of times before. Arthur says he will be very careful, but sure enough, as they are all walking around the park, Arthur lags behind to watch some jugglers. Suddenly he notices that his mother and his friend are nowhere in sight!

This has been one of the coldest winters that anybody can remember. Unfortunately, David's mother has had a bad case of the flu that just won't seem to get better. Finally David's father decides that he will have to take David's mother south to Florida for awhile where the weather is warm and sunny. But David will have to stay home because he can't miss school.

This was Bob's first summer at camp and he had just arrived two days ago. He had thought before he came that camp would be great fun, but now he was not so sure. It had been raining ever since he got there, he wasn't sure he liked his tent mates, and his counsellor seemed rather strict. Right now he was feeling very lonesome and homesick. He wondered whether he should write to his parents and ask them to take him home, and if he did write to them whether they would come and take him home.

George's family had decided to move to a new town. At first George had thought that it might be fun to live in a new place, but now it was nearly time for the family to move and George began to be a little worried. He had had lots of friends in his old school and on his old block, but naturally, he didn't know anybody in the school where he would be going in the new town. He didn't even know whether there were any kids his own age on the new block. Finally moving day came and as the family set off for the new town, George began to worry more and more.

AGGRESSION STORIES

David had got a brand new bicycle for his birthday. That afternoon, the weather was warm and David thought that this would be the perfect chance to try out his new bicycle and to show it to all his friends. Everyone admired it and a few boys wanted a turn riding on it. David didn't mind this and let them have a turn, feeling very proud. When he went to take the bicycle from one of his friends who had just finished his ride, another boy came up to him and said, "Hey, what about me?" David was very surprised because this boy had not asked him for a ride. Before he had time to answer, the boy gave David a hard push. David fell from his bicycle onto the ground.

On Saturday afternoons in the summer, Richard and his friends usually went swimming at a small beach near Richard's house. This one Saturday the boys were having great fun throwing a ball around but Richard wasn't getting too many good catches. Then the ball came his way, high in the air. Richard started running in the direction that the ball was coming, looking up to make sure that he would catch it. But what Richard didn't see was that the boy nearest him was also running for the ball. He too was looking up and didn't see Richard coming towards him. Then Richard felt a bang and found himself lying on the sand. The other boy had bumped right into him and had caught the ball.

Michael had quite a big back yard and very often his friends would use it in the afternoons for games and other things. This afternoon they had decided to have races and give a prize to the winner. Michael was very excited because he was good at running and was sure he had a good chance to win. There were 6 boys in the race altogether. Michael ran as fast as he could and was tied with one other boy. Then just as they were nearing the finish line, Michael started to go ahead of the other boy. The boy stuck out his foot, Michael fell flat on the ground, and of course the other boy won the race.

It was the last day of school and Donny's class was having a special party in the afternoon to celebrate. Donny's teacher had chosen him to be the king in a play that the class was going to put on and he was to wear a special costume for the part. It was raining very hard when Donny started out for school and his mother gave him a raincoat and umbrella to protect his costume. As Donny and his friends were walking to school, one of the boys was talking excitedly about the party and not watching where he was going. As they were crossing the street, he slipped and bumped into Donny, just hard enough to make him lose his balance. Donny fell right into a mud puddle at the side of the road.

One day when Tom was playing in his basement, he tripped over a piece of old junk and twisted his ankle. It was not bad enough that he had to stay home from school, but he had a slight limp. Tom felt bad because he could not go into some of the games that his friends played after school. One afternoon, when his ankle was feeling a little better, he decided to join in the fun. His friends agreed and were glad to have him since they needed one more player anyway. As Tom started walking towards the gang of kids in the schoolyard, a boy in his class came up to him and said meanly, "I don't want you in our game - anybody who limps is no good at all."

A whole group of Harvey's friends were going to see the circus next Saturday afternoon. A few of the younger boys weren't allowed to go because their parents thought they were still too young to go into the city by themselves. Harvey had just spoken to his mother that morning and she had said that Harvey would have to wait one more year before he could go into the city alone. Harvey felt pretty bad about it and was trying to get up enough courage to tell the other boys that he could not go. At recess that day, they all gathered in the schoolyard to talk about their plans. Of course the boys did not know that Harvey could not go because he had not told them yet. Before Harvey had a chance to tell them, one boy accidentally said something to hurt Harvey's feelings. He said, "Only babies aren't allowed to go to the circus. I'm sure glad we're not babies like some of the other guys!"

One of Paul's friends was having a birthday party. Paul's mother had bought him a jigsaw puzzle to give his friend as a birthday present. Everyone was having a wonderful time at the party. There were lots of games and all kinds of good things to eat. When it came time to open the presents, everybody gathered around to see what was in the packages. Then Paul's present was opened up, and the jigsaw puzzle was shown to everyone, one boy standing beside Paul said "What a stupid thing to give somebody - that's the worst present I ever saw!"

George's class was having an arithmetic test. Arithmetic was George's worst subject and he had to work very hard to keep up. He usually managed to do all right but today George was not feeling too well and was having a lot of trouble with the questions. As it turned out, he didn't finish in time and failed the test. Everybody in the class knew that George had failed and he felt very embarrassed about it. After school, George and a few of his friends were walking home from school. One of the boys had forgotten for a minute that George had not passed and accidentally said, "Boy, you'd have to be pretty stupid to fail that arithmetic test - anybody could have answered those questions!"

APPENDIX B

Early Separation Experiences of Small Sample

Descriptions of the separation experiences of children in the smaller sample.

Depressives:

A. Age 3½ parents divorced. Stayed with mother.

B. Age 2 mother away from home for six months. Age 3-7 years, lived with grandmother while parents emigrated to Canada. Age 7, grandmother died; Came to Canada to join parents.

C. Age 2½, parents divorced. S placed in foster home. Lived in eight different foster homes age 2½-3½.

D. Raised in foster home first two years. Age 3 lived with grandmother for eight months.

E. Age 3 parents divorced. Stayed with mother.

F. Age 8 parents divorced. S sent to boarding school.

G. Brought up first 13 months by grandmother. Then lived with mother. Father away first 6 years.

H. Lived in foster home age 2-4; age 5 - present.

I. Lived in foster home first 9 months.

Nondepressed neurotic Ss:

A. Age 7, father in hospital for seven months.

B. Age 3 months - 2 years, father away in hospital for tuberculosis.

C. Illegitimate. Cared for by mother and grandmother first 18 months. Boarded out age 18 months - 3 years. Then lived with mother.

D. Father away from home from Ss birth to age 2 years.

E. Age 5, parents divorced. Stayed with mother.

APPENDIX C

Chi Square Contingency Tables - Separation Story Completion Test, Aggression Story Completion Test and Early Memories.

CHI SQUARE CONTINGENCY TABLES

Separation story completion test

"denial":

	0 or 1	2 or more	
Depressives	10	7	17
Normals	35	5	40
	45	12	57

$X^2 = 4.30$

	0 or 1	2 or more	
Depressives	10	7	17
Nondepressed	15	3	18
	25	10	35

$X^2 = 1.51$

	0 or 1	2 or more	
Nondepressed Neurotics	15	3	18
Normals	35	5	40
	50	8	58

$X^2 = .00$

Separation story completion test

excessive optimism:

	0	1 or more	
Depressives	12	5	17
Normals	29	11	40
	41	16	57

$X^2 = .03$

	0	1 or more	
Depressives	12	5	17
Nondepressed Neurotics	9	9	18
	21	14	35

$X^2 = .81$

	0	1 or more	
Nondepressed Neurotics	9	9	18
Normals	29	11	40
	38	20	58

$X^2 = 1.87$

Separation story completion test

pessimism:

	0	1 or more		
Depressives	11	6	17	
Normals	20	20	40	$X^2 = .53$
	31	26	51	

	0	1 or more		
Depressives	11	6	17	
Nondepressed Neurotics	12	6	18	$X^2 = .05$
	23	12	35	

	0	1 or more		
Nondepressed Neurotics	12	6	18	
Normals	20	20	40	$X^2 = .80$
	32	26	58	

Separation story completion test

active adaptation:

	0 or 1	2 or more	
Depressives	9	8	17
Normals	2	38	40
	11	46	57

$X^2 = 14.66$

	0 or 1	2 or more	
Depressives	9	8	17
Nondepressed Neurotics	7	11	18
	16	19	35

$X^2 = .24$

	0 or 1	2 or more	
Nondepressed Neurotics	7	11	18
Normals	2	38	40
	9	49	58

$X^2 = 8.44$

Separation story completion test

apathy:

	0	1 or more		
Depressives	4	13	17	
Normals	31	9	40	$X^2 = 12.47$
	35	22	57	

	0	1 or more		
Depressives	4	13	17	
Nondepressed Neurotics	13	5	18	$X^2 = 6.46$
	17	18	35	

	0	1 or more		
Normals	31	9	40	
Nondepressed Neurotics	13	5	18	$X^2 = .01$
	44	14	58	

Aggression story completion test

physical aggression:

	0 or 1	2 or more		
Depressives	14	4	18	
Normals	17	15	32	$X^2 = 2.02$
	31	19	50	

	0 or 1	2 or more		
Depressives	14	4	18	
Nondepressed Neurotics	10	8	18	$X^2 = 1.13$
	24	12	36	

	0 or 1	2 or more		
Nondepressed Neurotics	10	8	18	
Normals	17	15	32	$X^2 = .02$
	27	23	50	

Aggression story completion test

verbal aggression:

	0 or 1	2 or more		
Depressives	9	9	18	
Normals	5	27	32	$X^2 = 5.15$
	14	36	50	

	0 or 1	2 or more		
Depressives	9	9	18	
Nondepressed Neurotics	7	11	18	$X^2 = .11$
	16	20	36	

	0 or 1	2 or more		
Nondepressed Neurotics	7	11	18	
Normals	5	27	32	$X^2 = 2.26$
	12	38	50	

Aggression story completion test

realistic problem solving:

	0 or 1	2 or more	
Depressives	15	3	18
Normals	10	22	32
	25	25	50

$X^2 = 10.50$

	0 or 1	2 or more	
Depressives	15	3	18
Nondepressed Neurotics	8	10	18
	23	13	36

$X^2 = 4.33$

	0 or 1	2 or more	
Nondepressed Neurotics	8	10	18
Normals	10	22	32
	18	32	50

$X^2 = .39$

Aggression story completion test

awareness of accidental nature of aggression:

	0	1 or more		
Depressives	16	2	18	
Normals	14	18	32	$X^2 = 7.99$
	30	20	50	

	0	1 or more		
Depressives	16	2	18	
Nondepressed Neurotics	13	5	18	$X^2 = .71$
	29	7	36	

	0	1 or more		
Nondepressed Neurotics	13	5	18	
Normals	14	18	32	$X^2 = 2.70$
	27	23	50	

Aggression story completion test

dependency:

	0	1 or more		
Depressives	9	9	18	
Normals	23	9	32	$X^2 = 1.54$
	32	18	50	

	0	1 or more		
Depressives	9	9	18	
Nondepressed Neurotics	3	15	18	$X^2 = 3.12$
	12	24	36	

	0	1 or more		
Nondepressed Neurotics	3	15	18	
Normals	23	9	32	$X^2 = 11.94$
	26	24	50	

Aggression completion test

passive withdrawal:

	0 or 1	2 or more	
Depressives	1	17	18
Normals	28	4	32
	29	21	50

$X^2 = 28.48$

	0 or 1	2 or more	
Depressives	1	17	18
Nondepressed Neurotics	11	7	18
	12	24	36

$X^2 = 10.13$

	0 or 1	2 or more	
Nondepressed Neurotics	11	7	18
Normals	28	4	32
	39	11	50

$X^2 = 3.26$

Aggression story completion test

Conscious control of aggression:

	0	1 or more		
Depressives	14.1 18	3.9 0	18	
Normals	25 21	7.0 11	32	$X^2 = 6.02$
	39	11	50	

Chi Square test not performed because of low expected frequencies.

	0	1 or more		
Nondepressed Neurotics	18	0	18	
Normals	21	11	32	$X^2 = 6.02$
	39	11	50	

Aggression story completion test

Expression of affect:

	More often sad	More often angry		
Depressives	16	2	18	
Normals	13	18	31*	$X^2 = 8.38$
	29	20	49	

	More often sad	More often angry		
Depressives	16	2	18	
Nondepressed Neurotics	15	3	18	$X^2 = .00$
	31	5	36	

	More often sad	More often angry		
Nondepressed Neurotics	15	3	18	
Normals	13	18	31	$X^2 = 6.32$
	28	21	49	

* One normal S did not give responses involving the hero's feelings.

Early memories

gratification of dependency needs:

	present	absent		
Depressives	10	10	20	
Normals	34	6	40	$X^2 = 6.66$
	44	16	60	

	present	absent		
Depressives	10	10	20	
Nondepressed Neurotics	11	9	20	$X^2 = .00$
	21	19	40	

	present	absent		
Nondepressed Neurotics	11	9	20	
Normals	34	6	40	$X^2 = 4.90$
	45	15	60	

Early memories

feelings of temporary abandonment:

	present	absent		
Depressives	14	6	20	
Normals	8	32	40	$X^2 = 12.28$
	22	38		

	present	absent		
Depressives	14	6	20	
Nondepressed Neurotics	12	8	20	$X^2 = .11$
	26	14		

	present	absent		
Nondepressed Neurotics	12	8	20	
Normals	8	32	40	$X^2 = 7.88$
	20	40	60	

Early memories

attempts at mastery:

	present	absent		
Depressives	2	18	20	
Normals	28	12	40	$X^2 = 16.87$
	30	30	60	

	present	absent		
Depressives	2	18	20	
Nondepressed Neurotics	13	7	20	$X^2 = 10.66$
	15	25	40	

	present	absent		
Nondepressed Neurotics	13	7	20	
Normals	28	12	40	$X^2 = .10$
	41	19		

Early memories

acting independently with help:

	present	absent		
Depressives	2	18	20	
Normals	10	30	40	$X^2 = 1.05$
	12	48	60	

	present	absent		
Depressives	2	18	20	
Nondepressed Neurotics	3	17	20	$X^2 = .23$
	5	35	40	

	present	absent		
Nondepressed Neurotics	3	17	20	
Normals	10	30	40	.31
	13	47		

Early memories

pseudo-independency:

	present	absent		
Depressives	1	19	20	
Normals	3	37	40	$X^2 = .13$
	4	56	60	

	present	absent		
Depressives	1	19	20	
Nondepressed Neurotics	5	15	20	$X^2 = 12.55$
	6	34		

	present	absent		
Nondepressed Neurotics	5	15	20	
Normals	3	37	40	$X^2 = 2.18$
	8	52	60	

Early memories

watching independent activities of others:

	present	absent	
Depressives	5	15	20
Normals	9	31	40
	14	46	60

$X^2 = .00$

	present	absent	
Depressives	5	15	20
Nondepressed Neurotics	6	14	20
	11	29	40

$X^2 = .00$

	present	absent	
Nondepressed Neurotics	6	14	20
Normals	9	31	40
	15	45	60

$X^2 = .10$

Early memories

being the object of severe attack:

	present	absent		
Depressives	7	13	20	
Normals	5	35	40	$X^2 = 2.92$
	12	48	60	

	present	absent		
Depressives	7	13	20	
Nondepressed Neurotics	4	16	20	$X^2 = .50$
	11	29	20	

	present	absent		
Nondepressed Neurotics	4	16	20	
Normals	5	35	40	$X^2 = .15$
	9	51	60	

Early memories

being the object of a mild attack:

	present	absent	
Depressives	3	17	20
Normals	13	27	40
	16	44	60

$X^2 = 1.25$

	present	absent	
Depressives	3	17	20
Nondepressed Neurotics	5	15	20
	8	32	60

$X^2 = .16$

	present	absent	
Nondepressed Neurotics	5	15	20
Normals	13	27	40
	18	42	60

$X^2 = .09$

Early memories

being attacked, but retaliating:

	present	absent	
Depressives	2	18	20
Normals	9	31	40
	11	49	60

$X^2 = .72$

Depressives versus Nondepressed Neurotics:

Expected frequencies too small for chi square test to be performed.

	present	absent	
Nondepressed Neurotics	1	19	20
Normals	9	31	40
	10	50	60

$X^2 = 1.76$

Early memories

self aggression:

	present	absent	
Depressives	10	10	20
Normals	6	34	40
	16	44	60

$X^2 = 6.66$

	present	absent	
Depressives	10	10	20
Nondepressed Neurotics	8	12	20
	18	22	40

$X^2 = .10$

	present	absent	
Nondepressed Neurotics	8	12	20
Normals	6	34	40
	14	46	60

$X^2 = 3.37$

Early memories

observance of aggression:

	present	absent		
Depressives	5	15	20	
Normals	9	31	40	$X^2 = .00$
	14	46	60	

	present	absent		
Depressives	5	15	20	
Nondepressed Neurotics	2	18	20	$X^2 = .69$
	7	33	40	

	present	absent		
Nondepressed Neurotics	2	18	20	
Normals	9	31	40	$X^2 = .72$
	11	49	60	

APPENDIX D

Chi Square Contingency Tables - Early Separation Experiences in Large Sample (Clinic Files).

Early parental deprivation

death of parent:

	yes	no		
Depressives	8	63	71	
Nondepressed Neurotics	7	178	185	$X^2 = 5.32$
	15	241	256	

divorce desertion or illness:

	yes	no		
Depressives	17	54	71	
Nondepressed Neurotics	23	162	185	$X^2 = 5.33$
	40	216	256	

foster home not because of parent's death or divorce, etc:

	yes	no		
Depressives	9	62	71	
Nondepressed Neurotics	7	178	185	$X^2 = 5.61$
	16	240	256	

institution from birth to age six months or more: expected frequencies too small for chi square test to be performed.

experienced some form of separation from one or both parents:

	yes	no		
Depressives	36	35	71	
Nondepressed Neurotics	43	142	185	$X^2 = 19.87$
	79	177	256	

experienced more than one foster home placement:

	yes	no		
Depressives	13	58	71	
Nondepressed Neurotics	10	175	185	$X^2 = 10.45$
	23	233	256	

Experience of children following the loss of one parent due to death, divorce, desertion or illness.

stayed with remaining parent:

	yes	no		
Depressives	8	63	71	
Nondepressed Neurotics	21	164	185	$X^2 = .00$
	29	227	256	

placed in foster home for a period of over six months:

	yes	no		
Depressives	17	54	71	
Nondepressed Neurotics	9	176	185	$X^2 = 18.48$
	26	230	256	

Paternal loss versus maternal loss

separated from father, but lived continuously with mother:

	yes	no		
Depressives	6	65	71	
Nondepressed Neurotics	16	169	185	$X^2 = .00$
	22	234	256	

separated from mother, but lived continuously with father: expected frequencies too small for chi square test to be performed.

lost both parents for a period of at least six months due to foster home placement(s).

	yes	no		
Depressives	28	43	71	
Nondepressed Neurotics	22	163	185	$X^2 = 22.80$
	50	206	256	