1974

Descriptive and behavioral childhood antecedents of psychosis.

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DESCRIPTIVE AND BEHAVIORAL CHILDHOOD ANTECEDENTS OF PSYCHOSIS

A Thesis Presented
By
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Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE December 1974
Department of Psychology
ACKNOWLEDGMENTS

I would like to express appreciation to the members of my committee, Dr. Alexandra Kaplan, Dr. Harold Raush, Dr. Norman Watt and Dr. Alvin Winder for their assistance in the preparation of this thesis. I am especially grateful to Norm Watt for his guidance and his encouragement. In addition, a special note of thanks to Guillermo Bernal and Sally Ives for their hours of work, but more importantly for their support.
ABSTRACT

The purpose of this study was to identify some of the childhood antecedent behaviors of two psychotic patient populations, "psychotic depressive" patients and "schizophrenics", through a retrospective examination of trait data. In addition, two other groups of non-psychotic patients, "neurotics" and "drug abusers" were analyzed for comparison with the psychotic groups. Four hundred and forty-four functionally disordered patients admitted to the University of Göttingen Hospital in Germany served as Ss for this study. Descriptive and demographic data were extracted from hospital records and personality variables of patients and of their parents were gathered by questionnaire. Ss were classified into one of four diagnostic categories and redivided into subclassifications according to symptoms. It was hypothesized that the pre-depressive patients would likely have shown high achieving, competent, socially active behaviors in childhood while schizophrenics would have been shy, withdrawn, possibly oppositional, isolated, socially passive, dependent, and unassertive. The depressives were lively, orderly, persistent and competent as children. Few differences on parenting variables were found. In addition, neurotic patients with primary depressive symptoms showed pre-morbid behaviors similar to those of the depressives and the behavioral antecedents for the neurotics with character disorders were in many cases
the same as those of the schizophrenics. These latter results suggest the distinction of psychiatric disorders according to antecedent variables, thus into a pre-depressive dimension and a schizoid dimension.
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CHAPTER I

INTRODUCTION

Statement of Problem

The purpose of this thesis is to explore some of the descriptive and behavioral childhood antecedents of adult psychosis. There is substantial literature on the premorbid development of schizophrenia which points toward several factors. The literature indicates that preschizophrenics show moderately inferior intellectual performance regardless of social factors (Lane and Albee, 1970; Lubensky and Watt, 1974). Also, social patterns of retreat differentiate preschizophrenics from normal control groups (Watt, 1970; Fleming and Ricks, 1970; Offord and Cross, 1969; Fryer, 1974). Some studies suggest that a subgroup of preschizophrenics exhibit a premorbid pattern of aggression (Ricks and Berry, 1970; Watt et al., 1970; Robins, 1966; Fleming, 1967 as cited in Fryer, 1974). This social disarticulation manifests itself in a variety of ways. Distancing or overprotection by the parents, for reasons of crisis in the family or unhealthy parent relationships, appear to lead to a pattern of poor relations with the outside world.

By comparison, there is a great paucity of identified antecedents to psychotic depression. Secondly while premorbid data on schizophrenics have yielded promising postdictive validity, generally speaking, post diction has not been suc-
cessful for depressives. Nevertheless, since there is poor prognosis for some psychotic depressives it is important to continue exploring the relationship between antecedents and prognosis for these patients as well.

By examining premorbid data on schizophrenic and psychotically depressed patients, using a retrospective approach, I hope to identify several differentiating and similar antecedents for both groups. The literature to follow on premorbid patterns suggests a focus on interpersonal style, educational attainment, and parenting relationships for premorbid schizophrenics and psychotic depressives.

Review of the Literature

Schizophrenia

It has been a major goal of research in schizophrenia to discover what variables are associated with the development of schizophrenic symptoms. In 1896 Kraepelin combined a group of diseases previously labelled hebephrenia, catatonia, and dementia paranoides under the rubric of dementia praecox. Though originally thinking he had identified a specific disease process, Kraepelin later discovered that his cases differed along dimensions of recovery, remission and prognostic favorability. Rather than adhering to the model of diagnosing dementia praecox on the basis of the course of illness and outcome Bleuler identified a series of clinical symptoms evident at onset alone, calling them schizophrenia
(Astrup and Noreik, 1966). Though differing in method of identifying similar syndromes, both men focused on the period from onset of early symptoms to outcome.

Adolph Meyer saw schizophrenia as a reaction to circumstances and, like Sullivan after him, favored a developmental approach to the study of schizophrenia. Garmezy (1965) views a schizophrenic's life in four developmental periods. Within this framework, he suggests that Meyer and Sullivan focused on the premorbid and precipitant stages of the disease:

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<th>A</th>
<th>B</th>
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<td>Pre-morbid phase</td>
<td>Precipitant</td>
<td>Morbid Phase</td>
<td>Outcome</td>
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<td>(child, adolescent and early adult)</td>
<td>(onset)</td>
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Meyer and Sullivan

The approaches of these two pairs of men are paralleled in two types of studies that have developed in the last fifty years. The first focuses on the relationship between the morbid phase and outcome, and the second investigates outcome as it relates to the premorbid phase (Garmezy, 1965). It appears that a trend from the first type of study to the second is reflected in the development of some of the most recent research in schizophrenia, life history research.

One of the greatest contributions to the development of life history research was made by Astrup and Noreik in a follow-up study of over 3,000 cases admitted to the Gaustadt Hospital in Norway. Comparing clinical assessment at onset of illness and outcome, they examined prognosis of five psy-
chotic groups in relation to clinical factors (i.e. sex, age at onset, prepsychotic personality), social factors and hereditary factors. Clinical factors showed greater prognostic potential than social and genetic factors.

Though ten percent of the schizophrenic population may carry a genetic predisposition, the fact that genetic loading does not show up in a greater proportion of schizophrenics behooves us to examine other premorbid factors (Watt, 1972). The importance of the prepsychotic personality as an indicator of prognostic potential suggests the study of the life history of the schizophrenic. Good prognosis appears in cases with good prepsychotic working capacity, sexual experience, and relatives with a friendly attitude toward the prepsychotic person (Astrup and Noreik, 1966). The factors leading to such a prepsychotic adjustment seem worthy of investigation.

The studies to be presented are the most recent studies done in the field of schizophrenia. They range from studies of neonates with schizophrenic mothers to comparisons of adolescents with differing mental disorders. They differ along the dimensions of methodological approach (retrospective or prospective), method of identifying the index person, and age of index person to be studied.

Prospective versus retrospective approach. One of the major questions in research strategy is whether to study behavior prospectively or retrospectively. Prospective studies
of schizophrenics begin with a heterogeneous group of subjects, some of whom will become schizophrenic, and follow up their development. Retrospective studies begin with a group of already labelled schizophrenics and "follow-back" on their histories.

The team of Watt, Stolorow, Lubensky and McClelland employed a retrospective approach in their school records project (1970). They compared the school records of thirty hospitalized schizophrenic patients with those of thirty normal controls. The school records included historical data, yearly teachers' comments, school activities and, at the high school level, personality rating scales. Results showed a sex difference in reports of school behavior among the preschizophrenic children. Preschizophrenic boys showed a major behavior pattern of aggression and secondarily exhibited overinhibition. Overinhibition, conforming behavior and sensitiveness characterized the majority of preschizophrenic girls. Also there was a greater incidence of parental death, organic handicap, and impaired intellectual functioning among the preschizophrenic group (Watt, 1972).

Lane and Albee (1970) have used a retrospective approach in a study designed to measure a more specific antecedent of schizophrenia. Their work measured I.Q. levels in adult schizophrenics and controls (matched for social background) and compared these scores to level of I.Q. in childhood. They found that low I.Q. characterizes preschizophrenics but
that the rate of decline in I.Q. is not greater in preschizophrenics. Furthermore, no appreciable difference was found between I.Q. in childhood and during the psychosis, therefore intellectual functioning did not decline as a function of the psychosis.

In contrast to the retrospective approaches used in these two studies, Mednick and Schul singer (1970) have been working on a ten-year longitudinal study exemplary of the prospective method. The study is aimed at following the development of a group of children at high risk for schizophrenia by virtue of having schizophrenic mothers. They studied I.Q. and psychophysiological responses, interviewed the child, parents and teachers and examined midwives' reports on the children. A percentage of this high risk group developed abnormal adjustment and now constitutes a "sick group". The final stage, still in progress, is to identify those variables which distinguish the sick group from those in the low risk group (with normal mothers), and from those in the high risk group who did not develop a psychosis (the "well group"). In comparison to the low risk group, the high risk group had a greater incidence of poor social adjustment, hypersensitive autonomic responses and more birth difficulties. The high risk group was characterized by withdrawal, passivity, excitability and nervousness. When comparing the "sick group" to the "well group", Mednick and Schul singer found the former more aggressive and emotionally unstable. They were described
by teachers more often as disturbing the class and displayed prolonged emotional reactions.

An interesting alternative to the prospective-retrospective dichotomy appears in the Rodnick and Goldstein study on behavioral predictors of schizophrenia in adolescence and early adulthood. This four-stage study involved three stages of prospective research and a fourth retrospective part. Premorbid behavioral variables relevant to schizophrenia were identified and then adolescents who exhibited these behaviors were selected from a group seen at a psychological clinic. The adolescents were followed to adulthood. This prospective work indicated that certain adolescent types, notably the withdrawn, isolated adolescent and the defiant antagonistic type showed a greater incidence of schizophrenia in adulthood. Rodnick and Goldstein (1972b) then compared this prospectively studied group (gpA) to another group of retrospectively studied hospitalized schizophrenics (gpB). They found similarities in the retrospectively and prospectively identified behavior patterns. The adults in the retrospective population with "poor premorbid histories" showed childhood behavior similar to the withdrawn socially isolated adolescents in group A. The childhood behaviors of the patients with less stressful premorbid histories were similar to the group A subjects who were defiant as adolescents. Thus the prospective and retrospective data confirmed one another.

Identification of index cases and focus of study. "When
the context of schizophrenia is examined schizophrenic behavior is not just a report of something wrong in the person but a type of response to a peculiar interpersonal context" (Haley, 1969, p. 30). In studying premorbid behavior of schizophrenics the method of identifying the index person and the context within which he is studied are of great importance. The index person can be identified on the basis of classification in a hospital record, or by identification by school or clinic records. He can be studied in a single unit, within a family, among classmates, or as one of a group of individuals with other disorders. Haley (1968) has chosen to study the child-parent unit. He compared parent-child communication patterns of schizophrenic and normal children. Parents were asked to record instructions to their child on a task. Haley found that parents of schizophrenics communicate instructions to their children as clearly as control parents do to theirs, but that the schizophrenic child performs less well than his matched control. Haley suggests that perhaps parents of schizophrenic children communicate in a "private way" to their child. However, the results may be intrinsic to the use of a specialized task.

The history of premorbid studies of schizophrenia would be incomplete without mentioning the follow-up study done at the Judge Baker Guidance Center by Ricks and Berry (1970). The study affords an interesting example of index identification and context of study, as well as some salient results.
The subjects were identified as schizophrenic, alcoholic, or impulsive on the basis of their hospital diagnosis and studied retrospectively in the context of their families. All of the men had been seen as adolescents at the Judge Baker Clinic. The study was aimed at identifying preschizophrenic family and symptom patterns in the men during their adolescence. Results showed that schizophrenics as children grew up in families where both parents withdrew and isolated themselves from the child and one another. There was an equal distribution of psychoses and neuroses in mothers of the different groups but schizoid and borderline psychosis in the mother predicted chronic schizophrenia in the child. Dependent and compulsive mothers tended to have children who were hospitalized and released, experiencing "episodes of schizophrenia." Impulsive and normal mothers most often had normal children. When seen in the hospital as adults the schizophrenic subjects were divided into chronic and released groups, with the chronic group subdivided into withdrawn and delinquent types. Withdrawal, apathy and passivity were frequent childhood characteristics of the chronic withdrawn group. Findings indicated a greater degree of brain damage in chronic versus released schizophrenics. The premorbid behavior of alcoholics included good early adjustment, dependency in relationships and use of acting-out behavior to gain self-esteem. The impulsive group was characterized by destructive behavior and sadistic peer relationships. The au-
thors suggest that the schizophrenic often realizes his vulnerability and experiences continued failure. If he confronts these feelings he becomes a chronic delinquent type or a released schizophrenic. If, on the other hand, he "protests" his situation in vain he becomes a chronic withdrawn type.

Ricks examined some antecedents of schizophrenia through a focus on parental relationships and childhood symptoms. In conjunction with Ricks, Patricia Fleming (1970) examined the case histories of adolescents seen at the Baker Clinic who later developed schizophrenia and character disorders. This time the focus was on the emotions of the children prior to onset of their disease. Fleming and Ricks found that schizophrenics could be distinguished by their childhood feelings of isolation, vulnerability and unreality. As children, schizophrenics were slightly more anxious than the cases of character disorder and less able to express their anxiety; they had difficulty in social situations, were extremely nervous and reported feelings of being "crazy".

Another example is born out of the long line of monozygotic twin studies done with discordant twins. A recent study by Stabenau and Pollin (1970) is a retrospective study of discordant monozygotic twins that focuses on the development of the mother-child relationship. Relative to the "healthy" twin the preschizophrenic twin was lighter at birth, more difficult to feed, more fragile, and demanded more attention
from the mother. Stabenau and Pollin suggest that the original lighter weight might establish the beginning of a dichotomy between the two twins. The mother, in response, splits her ambivalent feelings between the twins. The more troublesome child demands more and she expects less of him. Perceiving this, he becomes fearful. Mother is depressed with this child and he identifies with her depression. The preschizophrenic twin is not encouraged to explore his environment and cannot therefore learn to function well outside the family. Often, instead of turning to peers, he turns to the healthy twin only to find that twin deserting him as the two become adolescents.

Age of index person. Thus far the studies presented have differed in direction of search, retrospective or prospective, and context within which to study the identified case. The third dimension to be considered is the age of the index person to be studied. The following studies include two studies of infants (Sameroff and Zax, 1972; Schachter, 1972), one of preschool children (Gallant and Grunebaum, 1972) and one of adolescents (Rodnick and Goldstein, 1972b).

In order to study perinatal birth complication Schachter (1972) compared children of schizophrenic and nonschizophrenic mothers and followed them through fifteen to eighteen months of age. Of 32 babies, the fourteen with schizophrenic mothers appeared to grow up with more disorganized and less consistent child care, and showed deficiencies in health and
physical development. In a second study Schachter compared offspring from families with a schizophrenic parent against children from normal families. On the basis of the WISC, Bender Visual and Motor Gestalt Test, the TAT and Rorschach he found no differences in pathology. This second study indicated that offspring of schizophrenics do not show psychopathology except in a minority of cases. In addition, in a position paper presented in 1972, Schachter stated that no increased association has been demonstrated between pregnancy and birth complications and the development of schizophrenia in adulthood.

Strikingly discrepant were the results reported on matched groups of thirteen mothers (Sameroff and Zax, 1972). Again focusing on the infant for study, Zax and Sameroff compared delivery complications of schizophrenic, nonschizophrenic and neurotic depressive women. Those children designated to be at high risk could be differentiated from the children of nonschizophrenic mothers by number of birth complications. The number of perinatal birth complications in the neurotic and schizophrenic group could only be differentiated by dividing both groups on the basis of high and low severity (based on length of hospitalization for mental disorder). The high severity patients of both illness groups had higher numbers of birth complications.

Focusing on the child at a later stage of development, Gallant and Grunebaum (1972) explored the premorbid behavior
of preschool children of schizophrenic mothers. They identified traits inherent in the child, such as withdrawn behavior, lack of response, reduced social interaction, lower linguistic performance, and lower response to critical stimuli. Identified characteristics of the environment of high risk children included greater familial psychopathology, economic and health stress and death in the family.

The previously cited study of Rodnick and Goldstein identified the index case at adolescence. Studying a group of adolescents seen at a psychological clinic Rodnick and Goldstein (1972b) isolated those thought to possess previously identified pre-morbid attributes. On the basis of the parents' description of the adolescents they were categorized in one of four groups:

1) Acting family conflict group--adolescents that showed defiance toward their parents,
2) Aggressive and antisocial behavior group,
3) Withdrawn, passive and isolated adolescents,
4) Negative and sullen group that showed passive hostility to parents.

These groups were compared to adult schizophrenic patients categorized as having good and poor premorbid histories. Findings suggested that in families with an intense but distorted emotional attachment between parents and teenagers one often finds schizophrenic adjustment in the child. Parents who show low personal involvement on the other hand have act-
ing-out adolescents. Overconcerned parents often have socially withdrawn adolescents.

In conclusion there is some disagreement in the literature about the degree of psychopathology in the preschizophrenic child. All of the studies, however, suggest psychological and social deviation before onset of psychosis. The studies further suggest that preschizophrenic patterns may originate and be primarily expressed in the nuclear family. There is evidence for introversion and withdrawal in some preschizophrenics. However, the premorbid role appears to be aggression for others with some new evidence suggesting abrasiveness particularly in male preschizophrenics. Clinical studies of families suggest family dissolution and conflict. Some studies cited suggest that economic and health stress, death in the family, and familial psychopathology characterize the environment during the premorbid period.

**Depression**

Over 250,000 Americans were hospitalized for depression in 1972 (Cherry and Cherry, 1973). Nevertheless there is little experimentally confirmed information about the etiology of the disorder. Freud wrote about depression in 1917 in his book *Mourning and Melancholia*. Based on his observations of psychotically depressed patients he postulated that depressed patients feel resentment and hostility toward others but direct this anger inward. They therefore exhibit self-blame and express feelings of worthlessness. Following
in the psychoanalytic tradition Klein interprets depression as an outgrowth of the mother-child bond. Premorbid infants lack reassurance of their mothers' love. When they become angry at mother and are not reassured by her they resort to hopelessness and self-blame. While the psychoanalytic interpretation points to the characteristics of depression the etiology of the disease is more complicated than Freud and his followers understood it (Cherry and Cherry, 1973).

During the recent decades, studies conducted on family background of depressives began to address this issue more closely. In a study comparing manic-depressive and schizophrenic patients Witmer (1934) studied the emotional tone of the family and the behavior of parents towards children. He found extreme overprotection common for manic-depressive patients and a pattern of weak fathers and dominant mothers in both groups. A study by Pollock et al. (1933) again compared both groups and found that manic-depressives grew up in better economic conditions and showed more harmonious relations with siblings than the schizophrenic patients. An intensive study of twelve cases of manic-depressive psychoses—conducted by Cohen, Baker, Fromm-Reichmann and Weigert (1954)—reiterated the pattern of weak fathers and dominant mothers but focused on the importance of the status of the family of depressed patients. They found that families of manic-depressive patients were often set apart from the environment by race, financial status or previous illness in the family.
These families greatly valued the expectations of the community and used the children to gain prestige. The mothers of these twelve patients often presented the moral authority in the family while the fathers gave love but showed little authority.

In an attempt to substantiate the Cohen study, Gibson (1957) collected childhood data on 27 manic-depressives and 17 schizophrenic patients. The findings differentiated the manic-depressive group from the schizophrenic patients on striving for prestige, envy, and competitiveness. As in the Cohen study, parents of manic-depressives showed greater concern for social approval and a tendency to use the patient as an instrument for gaining prestige.

Spielberger, Parker and Becker (1963) investigated Cohen's formulations in a study of thirty remitted manic-depressives and thirty nonpsychiatric controls. On the basis of the California Fascism Scale, a traditional family ideology scale, a value achievement scale and a need achievement scale, manic-depressive patients were characterized by traditional opinions, and stereotyped achievement values rather than internalized achievement motives.

In 1963, Becker, Spielberger and Parker compared scores of neurotic depressives, schizophrenics and normal controls on various attitude measures. The psychiatric groups scored significantly higher than the controls on authoritarian attitudes and value achievement. However, no significant differ-
ence between psychiatric groups was noted. Age and social class significantly affected the scores indicating a need for investigation of these variables in relation to personality traits.

One of the greatest contributions to the study of depression has been made by Aaron Beck. Following an analytic approach he first studied dreams of 400 depressed and nondepressed patients and noted that the depressed patients consistently dreamt about incompetence and deprivation. He concluded that experiences of night and day were very similar in that patients showed a negative view of the world and of themselves. Beck believes that depression can be traced to the period in childhood when the person first acquires attitudes about himself. As an adult, Beck believes, the depressed person connects daily failures to a negative self-view and the childhood sense of hopelessness returns. Having reviewed clinical, experimental and theoretical aspects of depression, Beck concludes that "although depression (or melancholia) has been recognized as a clinical syndrome for over 2,000 years ... there are still major unresolved issues regarding its nature, its classification and its etiology" (Beck, 1967, p. 3).

With regard to the development of depression Beck suggests that the premorbid depressive establishes a negative view of himself and his environment. He later reacts with pessimism and self-blame to components of rejection or de-
privation in a situation. His cognitive structure parallels this emotional reaction. The cognitive pattern consists of negative thoughts of self-worth, performance and personal traits. As the individual meets new situations he conceptualizes them in terms of this negative cognitive pattern. The individual experiences an affective reaction in response to an incident and this emotional reaction activates cognitive structures for viewing the situation.

Bellak and Berneman (1970) concur on the lack of confirmed information regarding the etiology of psychotic depression but suggest some possible predisposing factors. They propose that as infants, depressives demonstrate an excessive desire for human contact. This has been explained psychoanalytically as resulting from a lack of identification figures serving as a supply of approval. Without models for identification, the child develops an ego-ideal of omnipotence and cannot safely satisfy this ideal. Whether due to congenital or experiential reasons the premorbid depressive, Bellak believes, is extremely field dependent. Too much input from the environment may lead to a high appetite level and high expectancy. The individual feels cheated when his expectations are not met. Too little input from outside may lead to the expectation of deprivation. All of these Bellak admits to be unproven predisposing factors and advocates collecting life history data to substantiate them.

Several recent studies of psychotic depression have
pointed to authoritarian standards in families of premorbid depressed patients. Malmquist (1970) interprets the experience of object loss during childhood as resulting from excessively strict and uncompromising standards. Rebuffed because of his inability to meet stringent standards the child develops a stance of hostility and self-reproach.

Burns and Offord (1972) have hypothesized that depression might occur in persons with a strong premorbid motivation to achieve. In a study based on school records of psychotically depressed patients they found strong upward mobility from the social class of origin for depressed women. Schwalb (1971) concurs that social factors lead to depression and that symptoms are class related. In possible contrast, however, Offord (1971) found that adults with psychotic depression seem to be adjusted as children when compared to schizophrenics.

The studies cited above suggest mild psychological and social deviation prior to onset of psychotic depression. Studies concur on the lack of confirmed data regarding the etiology of the disease. Some studies suggest that parents of psychotic depressives have great concern for social approval and emphasize authoritarian standards and traditional opinions to their children. Similarly psychotic depressives display a premorbid concern for community expectations. Such patterns, however, may be mediated by effects of age, sex and social class.
Role Orientation and Mental Disorder

A major conclusion to be drawn from the work done on depression and schizophrenia is that mental disorders are continuing processes from early childhood through onset of illness and into symptom development. The focus thus far has been on exploration of the relationship between such stages within one of the two diagnostic categories. Zigler and Phillips have made a potentially important contribution to the pattern of premorbid development by conceiving the patterns of behavior in patients regardless of diagnostic category. In this regard they have conceptualized three distinct role orientations of hospitalized patients, each of the three groups consisting of a cluster of symptoms.

The first role orientation, "turning against the self" is associated with high level of social competence, internalization of social standards, and a high level of social maturity. Symptoms of patients with this orientation include self-condemnation, depression, guilt, intropunitiveness, suicidal ideas, euphoria, mood swings, compulsions, phobias, obsessions and bodily complaints. "Turning against others", the second orientation, is characterized by a low level of social competence, social immaturity, and little introjection of social standards. Symptoms include emotional outbursts, perversions, drinking, rape, robbery, homosexuality, lying, fire-setting, addiction and accusations of murder. The third orientation, "turning away from others", suggests low social
competence and a stance of isolation. Included in this orientation are patients who feel withdrawn, suspicious, apathetic and depressed. Such patients often experience hallucinations, bizarre ideas and depersonalization. Zigler and Phillips hypothesized that patients whose orientation reflected turning against the self had a better prognosis than patients whose symptoms indicated the other two orientations. They reasoned that for patients in the former group the role of disordered patient would strongly contradict their self image. Secondly they would have skills best suited to combat illness.

Phillips and Zigler (1964) conducted two studies testing the hypothesis that a relationship exists between outcome of the disorder and premorbid social competence. Examining case histories of 251 patients, they categorized them into high and low social competence groups on the basis of age, I.Q., education, occupation, employment history and marital status. Patients in the low group had both a longer period of institutionalization and a greater likelihood of rehospitalization than patients in the high group. There are a number of factors that might contribute to this result. First is the inconsistency with self-concept experienced by the high group. Secondly, the high social competence group member is more employable and less of a burden to his family.
Rationale

The rationale for this study grows out of the work done by Phillips and Zigler, and previous studies focusing on the premorbid characteristics of psychotic depressives and schizophrenics. Phillips and Zigler have classified patients according to the three role orientations. The role orientation of avoidance of others includes symptoms exhibited primarily by schizophrenics. Sociopaths and character disorders exhibit symptoms of turning against others, and neurotics, neurotic depressives and psychotic depressives show symptoms of turning against self. Zigler and Phillips have shown that one can predict the best prognosis from patients who turn against self because that role orientation represents a higher level of psychosocial development.

The prediction for this study is a retrospective expression of the continuity hypothesis. Phillips and Zigler have made a postdiction by taking hospitalized patients and grouping them according to role orientation. The goal of this inquiry is to take trait data and apply it to a formulation of hypotheses of microgenetic development. The major hypothesis then is the following:

1. The general pattern of premorbid history in schizophrenics is one of avoiding and turning away from others and that of psychotic depressives of turning against self. That is, the premorbid history in schizophrenics is characterized by isolation from the outside world and
by alienation from peers and family. The pattern for depressives is one of reacting to the outside world in a self-punitive manner, but engaging socially in appropriate ways.

A general description of the premorbid personality emerges from a variety of the studies cited. The preschizophrenic has been typified as withdrawn, shy, submissive, serious, gentle, and dependent (Rodnick and Goldstein, 1972; Ricks and Berry, 1970; Fleming and Ricks, 1970). The depressives in contrast have been described as more adjusted (Schwab, 1971) and characterized by traditional opinions (Spielberger, Parker and Becker, 1963) and a strong motivation to achieve (Burns and Offord, 1972). I would therefore expect the following differences in the data:

a) Significantly slower childhood development in schizophrenics than psychotic depressives (Item C-3*).

b) Significantly more liveliness in psychotic depressives as children than in schizophrenics. Should this not hold true for the gross diagnostic groups one can predict with more certainty that the manic and cyclothymic depressives are significantly more lively as children than simple** schizophrenics.

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*Items referred to in this chapter appear in Appendices A, B, C, D, and E.

**Simple schizophrenics refers to those schizophrenics diagnosed neither as paranoid nor schizo-affective.
nics (Item C-6).

c) Schizophrenics are significantly more sensitive than psychotic depressives (Item C-7).

d) Schizophrenics are significantly more oppositional than psychotic depressives (Item C-8).

e) Schizophrenics are significantly more isolated than psychotic depressives (Item C-9).

f) Schizophrenics have significantly less social initiative than psychotic depressives (Item C-11).

When self-rated on an adjective check list and rated by an "important other" I would expect:

g) Schizophrenics show significantly higher scores than psychotic depressives on the following adjectives: quiet, oppositional, shy, delicate, dependent, unassertive and sensitive (Item D, patient check list).

A major theme emerging from the literature on psychotic depression is the high desire for social achievement and an attempt on the part of the parents of psychotic depressives to instill this desire during the premorbid phase (Cohen et al., 1954; Gibson, 1957; Malmquist, 1970). The literature on schizophrenia, in contrast, indicates that these children are often neglected because of crises or simply an unhealthy relationship between parents. In this situation they become anxious and withdrawn and are looked at as strange or different (Neubick, 1970; Stabenau and Pollin, 1970). Vulnerable
and weak, the child cannot rely on his parents but is never-
the less bound to them because they have not taught him to
rely on his environment. At this point one study suggests
that the child tries to defend himself and may develop a low
level stimulation pattern (Ricks and Berry, 1970). These
differing pre-morbid pictures lead to the second general pre-
diction:

2) **Schizophrenics show low overall social competence as
children while psychotic depressives show high overall
social competence.**

One would expect therefore the following patterns in the
data:

a) Psychotic depressives show significantly more
orderliness than schizophrenics (Item C-4).
b) Psychotic depressives show significantly more
persistence than schizophrenics (Item C-10).
c) Psychotic depressives score significantly high-
er on competence than schizophrenics (Item C-14).
d) A significantly larger proportion of psychotic
depressives are married than schizophrenics (Item
A-5).

In accordance with the differences in social competence
and the two patterns of premorbid history, one would expect
that the pattern of childrearing will differ between the two
groups. For some parent variables the given temperament of
the parent is communicated to the child by modeling. With
others, the child's behavior is a reaction to the parents' orientation. Presented in two parts, the third general hypothesis is:

3.1) **Parents of schizophrenics exhibit lack of engagement or extreme closeness to the child while parents of psychotic depressives relate more moderately.**

In accordance with this general hypothesis the data should show the following:

a) There is greater group variability in the characteristics of parents of schizophrenics than in those of psychotic depressives on the following continua: gregarious-reserved, excitable-even-tempered, conciliatory-domineering, and cool-warm-hearted (Item E--adjectives on Mother and Father, as rated by patient).

3.2) **Parents of schizophrenics show little investment in strict adherence to social values while parents of psychotic depressives desire strict adherence. Unusually strict adherence to social values leads to conscientiousness in psychotic depressives. Unusually little adherence to social values leads to poor compliance to moral rules.**

One would predict:

b) A significantly higher number of psychotic depressives have experienced strict upbringing than schizophrenics (Item E--adjectives on Mother and
Father, as rated by patient).

The literature on premorbid behavior of schizophrenics and depressives suggests stereotypical roles for the mother and father of premorbid children. Some of these parent stereotypes grow out of psychoanalytic theories of the early 1900's and are difficult to relate to outcome. The strongest variable suggested by more recent literature on psychotic depression suggests strict upbringing for premorbid children. The literature on schizophrenia indicates varying components in parental behaviors; the twin studies hypothesizing close mother-child relationships, the school records studies pointing to more distant relationships between parents and children, and other studies indicating marital disturbances between the mother and the father. The literature generally indicates the development of an alienated stance in the schizophrenic and one of conscientiousness in the psychotic depressive. It seems more helpful to predict parenting styles possibly related to these outcomes. One would therefore predict about parenting:

4) The parenting relationship is more distant and more conflictual in schizophrenic families than families of psychotic depressive patients and the parenting of psychotic depressives more strict and otherwise balanced because the first leads to alienation and the second to conscientiousness.

As the preschizophrenic is more oriented to the mother, the
data will show that:

a) The preferred parent for the schizophrenic is the mother (Item C-16).

Secondly, the pattern of conflict in the schizophrenic family versus the more balanced pattern for psychotic depressives will be supported in the data in the following ways:

b) Relation to father is significantly more distant in schizophrenics than psychotic depressives (Item C-17).

c) Relation to father is significantly more conflictual in schizophrenics than psychotic depressives (Item C-18).

The literature suggests that schizophrenics often experience a close but conflictual relationship with the mother, or distant and conflictual relationships. Therefore:

d) Relationship to mother is significantly more conflictual in schizophrenics than in psychotic depressives (Item C-20).

e) Where conflict is apparent, the relationship to mother tends more toward opposite extremes of attachment for schizophrenics than psychotic depressives (Items C-19 and C-20).

There is some indication of moderate premorbid I.Q. deficit in schizophrenics (Lane and Albee, 1970; Lubensky and Watt, 1974). The characteristic of inferior intellectual performance in childhood appears regardless of social factors.
However, though manifested in childhood, cognitive deficits do not increase with age. In fact the degree of deficit is related to time of onset, namely early onset is associated with more severe deficit. Because of the motivation to achieve expected in psychotic depressives during childhood, I would expect that the general intelligence of psychotic depressives would be slightly higher than that of schizophrenics. As most of the items used in this study measured educational level rather than I.Q. the following general hypothesis is made:

5) The intellectual attainment of schizophrenic patients is lower than that of psychotically depressed patients.

In line with this major hypothesis I would expect the data to show the following:

a) Significantly higher number of psychotic depressives have a college degree than schizophrenics (Item A-11).

b) Psychotic depressives have gone significantly further in schooling than schizophrenics (Item A-17).

c) Psychotic depressives are rated by psychiatrists as higher on intelligence than schizophrenics (Item C-13).

As has been previously stated, a great deal more research appears on the premorbid behavior of schizophrenics
than of psychotic depressives. Secondly there is great overlap of symptoms between the schizophrenic disorders that encompass affective components (such as the affective schizophrenic and paranoid schizophrenic), and depressive psychosis. For the purpose of identifying the overlap and in accordance with a strong commitment to identifying high risk for all psychoses it seems reasonable to expect certain similarities between premorbid behavior of psychotic depressives and schizophrenics. In particular no differences are expected between schizophrenics and psychotic depressives in childhood neurotic symptoms nor in their capacity for relationship. The data will be examined closely for further similarities between the psychotic groups that may distinguish them from the non-psychotic patients.
Subjects

All of the functionally disordered patients admitted in the fiscal year 1966-1967, 465 patients, from the University of Göttingen Hospital in Germany were selected as Ss for this study. Data were collected from hospital records on these patients. The patients ranged in age from 15 to 67. From the original group of 465, patients were diagnosed on the basis of symptoms observed during hospitalization and 21 patients were eliminated for substantial organic involvement or primary mental retardation, leaving a total of 444 Ss.

Measures and Procedure

The hospital records included extensive interviews which assessed family background, childhood and adolescent development, period of onset of psychiatric disturbance, current psychiatric condition and brief accounts of the course of illness and outcome. Descriptive and demographic data were extracted from the records by medical students serving as research assistants (see criteria for ratings in Appendix F). Three of the assistants read only those portions of the records concerned with premorbid history and rated each case on 14 personality traits and six aspects of family relations (see Appendix C). A fourth assistant read only the portions
of the records that reported on the present psychiatric condition, course of illness and outcome, and filled out a checklist of 29 psychiatric symptoms (indicating secondarily their salience) and transcribed the psychiatric diagnosis (see Appendix B). In addition, personality variables of patients and information concerning personality variables of parents of these patients were filled out by the patients as referees and by a close friend or relative of the patient (see Appendices D and E). Questionnaires were mailed over the signature of the hospital director requesting that the recipient answer the questions as part of a research project on patients hospitalized at the clinic. The recipient was asked to rate the patient named and his parents, as he remembered them from the patient's childhood. All of the assistants were broadly informed of the longitudinal purpose of the study but blind as to the specific theoretical rationale. Ss and referees filling out personality variables were similarly informed.

Treatment of the Data

On the basis of symptoms (see Appendix B) Ss were diagnosed by two independent raters. After developing a satisfactory level of inter-judge reliability, patients were classified into one of six major diagnostic categories: schizophrenia, depression, neurosis, drug use, anorexia, and psychosomatic disorder. Patients diagnosed as schizophrenic were subdivided into affective schizophrenic, paranoid schi-
zophrenic and simple schizophrenic groups. The depressive patients were divided into psychotic depressives, cyclothymic depressives, and manics. Patients in the neurosis category included a subgroup of depressive neurotics and a second group of "others". The drug classification was divided into those patients who were alcohol users and those who used other drugs.

For data of this kind it is important to comment on the problem of missing data. If coder reliability of premorbid history data (see Appendix C) were satisfactory then the coded ratings of the two assistants were averaged to give a composite score. In those cases where one rater coded the data and the other did not, the coded score was pro-rated and used. Where both raters agreed that data used was inadequate to code, the data for that S was omitted from that analysis. As a general principle for research of this kind it is more parsimonious to collect large samples of data and expect liberal attrition. Even with substantial attrition in samples, the number of Ss remaining is sufficiently large to permit a meaningful test of theoretical predictions.

Reliability tests were done on the two ratings of personality development (see Appendix C). Reliability analyses were done by Pearson Product Moment Tests where parametric assumptions were met or by contingency coefficients where they were not. The range for the reliability coefficients was from .31 to .79 with a median of .61.
Computer analysis was made comparing the four largest diagnostic groups, using chi-square, since many of the variables violated the distributional requirements for parametric tests. Due to the small number of anorexic and psychosomatic patients these two groups were not included in the final analyses. One-tailed tests of significance were applied for all of the hypothetical differences; where one-tailed tests were used, this is indicated after the reported $X^2$. All of the empirical results were analyzed for unexpected findings.
CHAPTER III
RESULTS

Chi-square tests were used to test the hypothesized differences between schizophrenics and depressive patients. Although the primary conceptual focus was on the premorbid development of these two psychotic groups, information was available for other functionally disordered (but not psychotic) patients, as well. These were labeled here "neurotic" if the formal diagnosis was neurotic depression \((n = 66)\) or some other form of symptom neurosis or personality disorder \((n = 76)\). They were labeled here "drug abusers" if the formal diagnosis was alcoholism \((n = 37)\) or any other form of drug abuse \((n = 10)\). Each of the sections which follows will begin with a statement of the hypothesis followed by information on four diagnostic groups, "schizophrenics", "depressives", "neurotics" and "drug abusers." The sample sizes are not consistent for all variables. If no information was available or that information was "sketchy" no rating was made by the coders. Sex differences on a given variable will be reported where significant. Where very small frequencies at the extremes of a scale might distort or attenuate the \(X^2\) test, scores at two or more scale points were collapsed. Where three point scales were collapsed to two-point scales differences between groups will be presented as a percentage of the group with scores larger than one (the lowest score). To examine hypothesized variability of parents' characteris-
tics, variances of the groups were compared. Finally, since the results are grouped for convenience by the type of statistical analysis used, a summary of the results for each major hypothesis appears at the end of this chapter.

Late development. (Item C-3*) Hypothesis 1(a): More schizophrenics than psychotic depressives show late childhood development.

<table>
<thead>
<tr>
<th>Schizophrenics (n = 77)</th>
<th>Depressives (n = 110)</th>
<th>Neurotics (n = 121)</th>
<th>Drug Abusers (n = 37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on late development</td>
<td>10.4%</td>
<td>2.7%</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

The groups differed significantly on late development ($X^2 = 15.18$, 3 df, $p < .005$). As predicted, more schizophrenics than depressives developed late ($X^2 = 3.52$, 1 df, $p < .05$, one-tailed test); also more neurotics developed late than psychotic depressives ($X^2 = 10.75$, 1 df, $p < .005$).

Orderliness. (Item C-4) Hypothesis 2(a): Psychotic depressives are more orderly in childhood than schizophrenics.

<table>
<thead>
<tr>
<th>Schizophrenics (n = 88)</th>
<th>Depressives (n = 125)</th>
<th>Neurotics (n = 137)</th>
<th>Drug Abusers (n = 42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on orderliness</td>
<td>13.7%</td>
<td>29.4%</td>
<td>23.4%</td>
</tr>
</tbody>
</table>

The groups differed significantly overall ($X^2 = 11.64$, 3 df, $p < .01$). As predicted, the psychotic depressives were more orderly than the schizophrenics ($X^2 = 6.40$, 1 df, $p < .025$).

*Items referred to in this chapter appear in Appendices A, B, C, D, and E.
one-tailed test) but not more so than the neurotic depressives who likewise were more orderly than the schizophrenics ($x^2 = 4.04, 1 \text{ df}, p < .05$). The depressive neurotics carried most of the variance for the neurotics.

<table>
<thead>
<tr>
<th>Depressive Neurotics ($n = 66$)</th>
<th>Neurotic Others ($n = 76$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on orderliness</td>
<td></td>
</tr>
<tr>
<td>28.1%</td>
<td>19.7%</td>
</tr>
</tbody>
</table>

Like the schizophrenics, the drug abusers were less orderly than the depressives and the neurotics. Hence, orderliness appears to be a premorbid character trait most closely associated with depression, either at the neurotic or psychotic level.

Liveliness. (Item C-6) Hypothesis 1(b): More psychotic depressives than schizophrenics show liveliness as children.

<table>
<thead>
<tr>
<th>Schizophrenics ($n = 90$)</th>
<th>Depressives ($n = 129$)</th>
<th>Neurotics ($n = 141$)</th>
<th>Drug Abusers ($n = 42$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on liveliness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.9%</td>
<td>31.8%</td>
<td>20.6%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

The differences between groups were not significant, although schizophrenics differed significantly from depressives ($x^2 = 3.89, 1 \text{ df}, p < .025$, one-tailed test). Liveliness was a premorbid antecedent to depression for females, and among females this variable distinguished depressives from schizophrenics ($x^2 = 5.35, 1 \text{ df}, p < .025$, one-tailed test) as well.
as from the other three groups \( (X^2 = 8.39, 1 \text{ df, } p < .005) \).

For both sexes combined it was descriptively clear that the characteristic of liveliness distinguished only the manic subgroup, not the cyclothymics as predicted, and neither was the "simple schizophrenic" subgroup less lively than other schizophrenic patients.

The manic and cyclothymic subgroups were not significantly more lively as children than the simple schizophrenics \( (X^2 = 2.25, 1 \text{ df, n.s.}) \).

**Oppositionalism.** (Item C-8) hypothesis 1(d): Schizophrenics are more oppositional in childhood than are psychotic depressives.

<table>
<thead>
<tr>
<th>Schizophrenics ((n = 91))</th>
<th>Depressives ((n = 129))</th>
<th>Neurotics ((n = 142))</th>
<th>Drug Abusers ((n = 44))</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on oppositionalism</td>
<td>33.0%</td>
<td>12.4%</td>
<td>30.9%</td>
</tr>
</tbody>
</table>

The four groups differed significantly on oppositionalism \( (X^2 = 17.44, 3 \text{ df, } p < .001, \text{ one-tailed test}) \). The schizophrenics were indeed far more oppositional than the depressives \( (X^2 = 12.43, 1 \text{ df, } p < .001, \text{ one-tailed test}) \) but not significantly more so than were the neurotics or the drug abusers. (The latter two groups were likewise more oppositional than the depressives.) The theoretical issue, then, is to account for the lack of oppositional behavior in the depressives rather than the presence of it in the schizophrenics. In line with this observation the depressive neurotics were
described as oppositional less frequently than the other neurotic subgroups.

<table>
<thead>
<tr>
<th>Depressive Neurotics (n = 66)</th>
<th>Neurotic Others (n = 76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% high on oppositionalism</td>
<td>26.2%</td>
</tr>
<tr>
<td></td>
<td>36.0%</td>
</tr>
</tbody>
</table>

Hence, depressive symptomatology appears to be inversely associated with premorbid oppositional behavior.

It might have been predicted that the difference between the two psychotic groups would reside primarily in the males (Watt et al., 1970) but the heterogeneity $X^2$ did not show a significant sex interaction.

**Marital Status.** (Item A-5) Hypothesis 2(d): A larger proportion of psychotic depressives than schizophrenics are married.

<table>
<thead>
<tr>
<th>Schizophrenics (n = 105)</th>
<th>Depressives (n = 134)</th>
<th>Neurotics (n = 141)</th>
<th>Drug Abusers (n = 46)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% married, widowed, or divorced*</td>
<td>31.4%</td>
<td>80.6%</td>
<td>53.2%</td>
</tr>
</tbody>
</table>

The depressive and drug groups showed a far higher incidence of marriage than either the neurotic or schizophrenic group (overall $X^2 = 78.59$, 3 df, $p < .001$). As hypothesized

*The scores on marital status were recoded into two categories, 1 = single, 2 = married, widowed or divorced.
the psychotically depressed patients had a significantly higher incidence of marriage than the schizophrenics ($X^2 = 56.82$, 1 df, $p < .001$, one-tailed test). Furthermore, stratification of data by age of admission to the hospital showed that this result was not contaminated by differential age sampling. Rather, in patients over 39, 83% of the schizophrenics ($n = 96$) and 90% of the psychotic depressives ($n = 127$) had married, whereas for patients under 40 only 17% of the schizophrenics and 52% of the psychotic depressives had married. Therefore the bulk of difference in marriage rates for schizophrenics and depressives as a whole rested with the younger patients. We can conclude that the difference in marriage rates between the two psychotic groups was not an artifact attributable to the older age of the depressives. If a schizophrenic survives to 40 or over without hospitalization, then he is apparently no more limited than a depressive of comparable circumstance in capacity for a marital relationship. By contrast we may infer that a schizophrenic who requires hospitalization under 40 is less capable than a depressive to enter into marriage.

**College degree.** (Item A-11) Hypothesis 5(a): More psychotic depressives achieve a college degree than schizophrenics.

<table>
<thead>
<tr>
<th>Schizophrenics ($n = 76$)</th>
<th>Depressives ($n = 114$)</th>
<th>Neurotics ($n = 107$)</th>
<th>Drug Abusers ($n = 39$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with a degree</td>
<td>9.2%</td>
<td>8.8%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>
The groups did not differ overall in the proportions who earned college degrees, and there were specifically no differences between the psychotic groups. Hence, the schizophrenics were not deficient in intellectual attainment.

**Childhood neurotic symptoms.** (Item C-2): No differences were expected between schizophrenics and depressives.

The overall differences among the four groups were significant \((X^2 = 31.86, 6 \, \text{df}, \, p < .001)\), owing largely to the high frequency for the neurotics on this variable. Slightly more childhood neurotic symptoms were reported for schizophrenics than for depressives \((X^2 = 2.85, 1 \, \text{df}, \, p < .10)\).

**Sensitivity.** (Item C-7) Hypothesis 1(c): Schizophrenics are more sensitive prior to hospitalization than psychotic depressives.

The four patient groups differed greatly on premorbid sensitivity \((X^2 = 26.81, 6 \, \text{df}, \, p < .001)\) with the drug abusers least and neurotics most sensitive (cf. Table I). The two psychotic groups were more sensitive than the drug abusers, but the difference between the two psychotic groups did not reach significance \((X^2 = 3.02, 2 \, \text{df}, \, p < .20, \, \text{one-tailed test})\).

**Social relations.** (Item C-9) Hypothesis 1(e): Schizophrenics are more socially isolated than psychotic depressives.

The four groups differed greatly on this variable \((X^2 = 22.08, 12 \, \text{df}, \, p < .05)\). The depressives were the most extra-________

*See Tables of Means (I and II) in Appendix for significant variables reported here by chi-square tests.*
verted, and the schizophrenics and neurotics were the least sociable. As predicted, the schizophrenics were more isolated socially than the depressive patients ($X^2 = 17.80$, 4 df, $p < .001$, one-tailed test).

**Persistence**. (Item C-10) **Hypothesis 2(b):** Psychotic depressives are more persistent as children than schizophrenics.

The four groups differed significantly on persistence ($X^2 = 58.70$, 12 df, $p < .001$). The psychotic depressives were significantly more persistent than the schizophrenics ($X^2 = 13.74$, 4 df, $p < .005$, one-tailed test).

**Social initiative**. (Item C-11) **Hypothesis 1(f):** Schizophrenics display significantly less social initiative than psychotic depressives.

The differences among the four groups were highly significant ($X^2 = 45.89$, 12 df, $p < .001$). As hypothesized, the schizophrenics were less active socially than the depressives ($X^2 = 19.79$, 4 df, $p < .001$, one-tailed test). In this respect the schizophrenics again were very similar to the neurotics.

**Capacity for relationship** (Item C-12): No difference between schizophrenics and depressives was expected.

The four groups differed significantly on this variable ($X^2 = 41.44$, 12 df, $p < .001$). Contrary to expectation, though not counterintuitively, the depressives were described as significantly higher in their "capacity for relationship"
than were the schizophrenics ($X^2 = 10.40, 4 \text{ df}, p < .05$).

**Intelligence.** (Item C-13) Hypothesis 5(c): Psychotically depressed patients are rated by psychiatrists as more intelligent than schizophrenics.

The four groups differed on intelligence at a marginal level of significance ($X^2 = 19.03, 12 \text{ df}, p < .10$). In line with the hypothesis the depressives were judged to have higher intelligence than the schizophrenics ($X^2 = 9.18, 4 \text{ df}, p < .05$, one-tailed test). However, this result does not reflect extreme intellectual deficiency in the schizophrenics because they were not judged less intelligent than the non-psychotic patients.

**Competence.** (Item C-14) Hypothesis 2(c): Psychotic depressives are more competent than schizophrenics.

The overall group differences were highly significant ($X^2 = 33.77, 12 \text{ df}, p < .001$). The difference between the schizophrenics and depressives was significant, confirming the hypothesis ($X^2 = 18.49, 4 \text{ df}, p < .001$, one-tailed test). There was a significant sex interaction, with the differences among the males much larger than the differences among the females (Interaction $X^2 = 6.01, 2 \text{ df}, p < .01$).

**Extent of education and training.** (Item A-17) Hypothesis 5(b): Psychotic depressives have more schooling than schizophrenics.

There were significant differences among the four groups in total years of education ($X^2 = 13.08, 6 \text{ df}, p < .05$). The
neurotics and depressives had the least schooling. Contrary to the hypothesis the schizophrenics had significantly more years of school than the depressives ($X^2 = 6.00, 2 \text{ df}, p < .05$). Stratification of data by age of admission to the hospital showed that this result was not contaminated by differential age sampling. This may however be due to the fact that schizophrenics in this sample had a slightly higher socio-economic status than the depressives as measured by the trend of higher occupational levels of their fathers ($X^2 = 3.82, 1 \text{ df}, p < .10$).

The groups also differed significantly ($X^2 = 10.71, 3 \text{ df}, p < .025$) in frequency of school failure, with the neurotics and schizophrenics failing most often. However the two psychotic groups did not differ significantly. Finally, the four groups had varying frequencies of vocational apprenticeship ($X^2 = 15.64, 3 \text{ df}, p < .005$), though the schizophrenics and depressives did not differ.

**Relation to father.** (Item C-16) Hypothesis 4(c): During childhood schizophrenics have more conflict with their fathers than do psychotically depressed patients.

There was no large overall difference among groups ($X^2 = 10.55, 6 \text{ df}, p < .20$). As predicted, schizophrenics reported more conflict with father than psychotic depressives ($X^2 = 10.41, 2 \text{ df}, p < .005$, one-tailed test).

**Distance from father.** (Item C-17) Hypothesis 4(b): Schizophrenics are more distant from their fathers before
hospitalization than are psychotically depressed patients.

There were no overall differences among the four groups; however, schizophrenics' relationships with their fathers were more distant than were those of the psychotic depressives ($X^2 = 4.96, 2 \text{ df}, p < .05$, one-tailed test).

**Relation to mother.** (Item C-20) Hypothesis 4(d): During childhood schizophrenics have more conflict with their mothers than do psychotically depressed patients.

The groups did not differ overall, and specifically the two psychotic groups did not differ. Hence the results did not support this hypothesis.

**Relation to mother.** (Items C-19 and C-20) Hypothesis 4(e): Given conflict, mothers of schizophrenics are more often extremely close or extremely distant from their children than are mothers of psychotically depressed patients.

The results did not confirm the hypothesis. However, when extreme conflict with mother was reported, the schizophrenics simultaneously reported greater distance from mother than did the depressives ($X^2 = 9.39, 2 \text{ df}, p < .01$). Hence, conflicted symbiotic relations with mother were not more common among schizophrenics than among depressives, but distant conflictual relations were.

**Preferred parent.** (Item C-16) Hypothesis 4(a): During childhood schizophrenics are more likely to have preferred their mothers than are psychotic depressives.

Results showed no significant difference between patients
in any of the groups.

**Characteristics of parents.** (Item E) Hypothesis 3(a): Parents of schizophrenics show greater variance than parents of psychotic depressives on the following continua: gregarious-reserved, excitable-even-tempered, conciliatory-domineering and cool-warm-hearted.

Comparisons of variances of scores for all four groups showed, contrary to the hypothesis, no appreciable difference in variability among the groups. It is interesting that the only two results that even approached significance were the gregarious-reserved variable for both mother and father. In both cases the parents of schizophrenics were more variable.

**Strict upbringing.** (Item E) Hypothesis 3(b): More psychotic depressives experience strict upbringing than schizophrenics.

Chi-square tests of differences run on the patients' ratings of their parents showed no significant differences between the four groups or between the schizophrenics and psychotic depressives.

**Self ratings.** (Item D) Hypothesis 1(g): Schizophrenics rate themselves higher than do depressives on the following traits: quiet, oppositional, shy, delicate, dependent, unassertive and sensitive.

The results showed that schizophrenics viewed themselves as significantly more shy, dependent and unassertive, but not as more quiet, oppositional, delicate, dependent or sensitive.
<table>
<thead>
<tr>
<th>Item</th>
<th>Chi-square</th>
<th>df</th>
<th>Significance (one-tailed test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>shy</td>
<td>8.99</td>
<td>3</td>
<td>.025</td>
</tr>
<tr>
<td>dependent</td>
<td>10.74</td>
<td>2</td>
<td>.005</td>
</tr>
<tr>
<td>unassertive</td>
<td>11.25</td>
<td>2</td>
<td>.005</td>
</tr>
</tbody>
</table>

Summary of Results

Hypothesis 1: In childhood, schizophrenics exhibit a pattern of avoiding or turning away from others; psychotic depressives of turning against themselves. Premorbidly, schizophrenics are characterized by isolation from the outside world and by alienation from peers and family, while depressives are characterized by appropriate social engagement but self-punitive behavior.

a. More schizophrenics than psychotic depressives developed late.
b. Liveliness was a premorbid antecedent to depression.
c. Contrary to expectation, schizophrenics are not significantly more sensitive than psychotic depressives.
d. The schizophrenics were more oppositional in childhood than the depressives.
e. The schizophrenics were more isolated socially than the depressed patients.
f. The schizophrenics were less active socially than the depressed patients.
g. The schizophrenics rated themselves significantly more often as shy, dependent and unassertive.
Hypothesis 2: Psychotic depressive patients show premorbid behaviors that reflect higher overall social competence than schizophrenics.

a. Psychotic depressives were more orderly than the schizophrenics.
b. Psychotic depressives showed more persistence during childhood than schizophrenics.
c. Psychotic depressives were more competent than schizophrenics.
d. Psychotic depressives showed a higher incidence of marriage than schizophrenics.

Hypothesis 3: Parents of schizophrenics exhibit lack of engagement or extreme closeness to the child while parents of psychotic depressives relate more moderately. Parents of psychotic depressives are more strict with their children than are parents of schizophrenics.

a. There was no difference between ratings of the parents of schizophrenics and of psychotic depressives on the following continua: gregarious-reserved, excitable-even-tempered, conciliatory-domineering, cool-warm-hearted.
b. Patients' ratings of their parents showed no difference between the schizophrenics and depressives on strict parenting.

Hypothesis 4: The parenting relationships is more distant and more conflictual in families of schizophrenics than
in families of psychotic depressives. In addition, the pre-
schizophrenic is more oriented to the mother, experiencing a
close and conflictual or distant and conflictual relation-
ship.

a. Schizophrenics did not prefer their mothers more of-
ten than did psychotic depressives.
b. Schizophrenics' relationships with their fathers
were more distant than were those of psychotic de-
pressives.
c. Schizophrenics reported more conflict with father
than did psychotic depressives.
d. Schizophrenics did not report more conflict with
their mothers than did psychotically depressed pa-
tients.
e. When conflict with mother was reported the schizo-
phrenics simultaneously reported greater distance
but not greater closeness.

Hypothesis 5: Schizophrenics show lower intellectual
attainment than do psychotic depressives.
a. Schizophrenics and psychotic depressives did not
differ in the proportions who earned college de-
grees.
b. Schizophrenics had significantly more years of
schooling than did the psychotic depressives.
c. The depressives were judged to have higher intelli-
gence than the schizophrenics.
Two peripheral hypotheses concerned characteristics that might be expected to distinguish the two psychotic groups from the non-psychotics but not one psychotic group from another. Both proved wrong.

a. Slightly more childhood neurotic symptoms were reported for schizophrenics than for depressives.

Secondly,

b. Contrary to expectation, the depressives differed from the schizophrenics in that the depressives were described as having greater capacity for relationship.
CHAPTER IV
DISCUSSION

Results show that indeed the antecedent childhood behavior of schizophrenic and depressive psychotics differs markedly (see diagram 1 in Appendix). Those patients later diagnosed as schizophrenic showed characteristics of late development, oppositionalism, and isolation. They were socially passive, sensitive, had a high incidence of childhood neurotic symptoms, and remembered themselves as shy, dependent and unassertive. They reported their relationships with their fathers as distant and conflictual. And their relationships with their mothers, though not more often conflictual than those of the depressive patients, were more often simultaneously conflictual and distant. In strong contrast, the depressive patients were characterized as lively, orderly, persistent and competent as children. They showed a higher capacity for relationship, the younger depressive patients had a higher incidence of marriage and all were rated slightly higher in intelligence than the schizophrenic patients. Results showed no significant differences on a variety of parenting variables, including degree of permissiveness.

There are some methodological problems with those parenting variables mentioned above that did not differentiate the two psychotic groups. This group of variables was coded by the patients and by a group of "other referents." A large
proportion of "other referents" were parents of the patients and, in addition, the referents were predominantly women. This probably reflects the large number of absent fathers in this post-war population. Due to the large number of mothers filling out this questionnaire the patients' ratings of their parents were used rather than both ratings or solely the ratings of the other referents. In many cases the patients' memories of parenting behavior differed markedly from the report of the other referent. This underlines the potential importance of discrepancy between retrospective views of parenting. For example, though both a psychotic depressive patient and a schizophrenic patient may remember their parents as strict, this perception might in one case be the perception of a lively, persistent, competent child with parents who strove to instill discipline through strict upbringing. In the other case, an isolated, withdrawn child might, when met with far less strict parenting (as viewed by the parents) still view any rules as an invasion of this isolation.

Results then support the conclusion that schizophrenics and psychotic depressives are descriptively very different in their premorbid behavior. However the causal hypotheses implicating differential parenting in the two psychotic groups were for the most part not supported by the data.

Though never entirely explicit in the rationale offered for the study, it was generally presumed that behavioral deviations that distinguished one psychotic group from another
would distinguish it likewise from the non-psychotic groups, but the results included several striking exceptions, mostly involving the group broadly labelled here as "neurotic."

There were clusters of antecedent traits that linked the neurotics closely with the schizophrenics, and other clusters that linked the neurotics closely with the psychotic depressives. Diagram 2 in Appendix shows graphically the relationship of premorbid traits among these three groups. Psychotic depressives and neurotic depressives were both more orderly and less oppositional than the schizophrenics (or drug abusers). This confirms the view expressed by Phillips (1968) that, under stress, a characterological inclination to conscientiousness and conformity lends itself to depressive and neurotic symptoms. On the other hand, schizophrenics and "other" neurotics were alike in showing characteristics of social passivity, sensitivity, late development, interpersonal isolation, school failure and childhood neurotic symptoms. This cluster of findings might be summarized as showing that schizophrenics and non-depressive neurotics share in common a generalized insufficiency or retardation in social development.

Following the lead of Phillips and Zigler (1964) we might argue that schizophrenics and psychotic depressives generally manifest different premorbid behavior style patterns; further that these patterns can be construed plausibly to lend themselves to distinctive constellations of psychia-
tric symptoms at breakdown and to differential outcomes. Generally speaking, neurotic patients with primary depressive psychiatric symptoms can be grouped with the psychotic depressives in this model, whereas "other neurotics" (mainly character disorders and pattern disturbances of various kinds) fall closer to the schizophrenics in a group that might be considered, loosely, schizoid character types.

In childhood the depressives are lively, orderly, competent, persistent, socially active, intelligent, conforming (rather than oppositional), and exhibit a large capacity for human relationship. They describe themselves retrospectively as gregarious, independent, and assertive. Clearly they are highly socialized and engaged socially. One can easily imagine that their childhood experience with friends and family, in school and later at work would be quite positive and ego-enhancing. Their behavior as children could be differentiated from that of normals in the more conforming attitudes of the pre-depressives thus suggesting that they "over conformed". Extending the longitudinal perspective to the adult years, Phillips and Zigler (1964) argue that, because depressives achieve a high level of social competence and incorporate society's values to a great extent, they experience much guilt and anxiety about not meeting those values under stress. Hence they manifest psychiatric symptoms that signify "self-deprivation and turning against self", e.g., suicidal ideas, anorexia, self-deprecation, bodily complaints, depressed
mood, obsessions, and fear of their own hostile impulses. Pathological solutions to life's problems, such as being crazy or indolent or dependent on society, are unacceptable to depressives. This, in combination with the high level of social competence achieved prior to breakdown, accounts for the well-established fact that, among psychotics, the prognosis for recovery is best for depressives (Vaillant, 1962).

The data on therapy success, a measure of psychiatrists' ratings of patients, supports the Phillips and Zigler studies on outcome. On a scale from 1 (cured) to 3 (no improvement) the depressives responded best to treatment ($\bar{X} = 1.80$) with the schizophrenics ($\bar{X} = 2.11$) and neurotics ($\bar{X} = 2.32$) more treatment resistant. The chi-square test among the four groups was highly significant ($X^2 = 38.49$, 6 df, $p = .001$). One cannot be sure however that the improvement for the psychotic depressives was not reflecting primarily the relief from psychotic distress noted by the psychiatrists' rating these patients. Perhaps the neurotics were hospitalized for problems that were not amenable to the treatment used.

The developmental contrast with the schizoid character types is striking. They are socially passive, isolated, oppositional, sensitive, inclined to childhood neurotic symptoms and failure at school, though they ultimately attended school longer than average. They describe themselves retrospectively as shy, dependent and unassertive, and report distant and conflictual relations with their fathers. In short,
the schizoid types (and the schizophrenics especially) achieve a distinctly lower level of social competence than depressives prior to breakdown. Society's values are internalized relatively less and they are socially withdrawn. Hence they manifest psychiatric symptoms in adulthood that signify "avoidance of others", such as withdrawal, suspiciousness, hallucinations, apathy, perplexity, and depersonalization, and perhaps, to a less extent, aggressive symptoms ("self-indulgence and turning against others") e.g., emotional outbursts, threats of assault, destructive and irresponsible behavior, over-eating and excessive drinking, arson and sexual perversions. Because of the deficiencies in their childhood socialization, these patients acquiesce more readily to pathological life solutions, which contributes to their distinctly poorer prognosis for recovery and general rehabilitation.

It should be noted that the results linking the schizophrenics and neurotic other groups may run counter to clinical experience. In particular the results showing some neurotics as similar to schizophrenics on variables such as late development and social development may be explained by an artifact of the data.

Before discussing implications for further research there are several methodological problems that deserve consideration. Of foremost concern is the lack of a non-psychiatric control group. While parsimonious, the data lacks a
comparison group of functioning adults for whom there was no judgment that hospitalization was necessary. The obvious problem is that there is no "backdrop" against which to look at the behavioral antecedents of the patients in the study. However the data for this study were fortuitously available for psychiatric patients only, and the cost of collecting comparable evidence for a normal control sample would have been prohibitive.

A second methodological problem concerns the study of German psychiatric patients within an American conceptual framework. This bears on three separate issues. First, the subjects were drawn from a post-war German psychiatric population and the developmental evidence was originally collected in the German language by psychiatrists trained and theoretically oriented in the tradition of German academic psychiatry. Hence, the retrospective accounts of childhood behavior and parental relations may have been subtly influenced by the (German) preconceptions of the interviewers. Such preconceptions obviously cannot be entirely circumvented in any interview study but represent a potential source of bias.

A second, and more serious, concern is that the developmental evidence was available to the diagnostic team and probably influenced their ultimate psychiatric classifications to some extent. On the one hand, therefore, a German conceptual orientation was applied consistently in collecting the developmental and adult psychiatric data, but on the other hand, the
clinicians' implicit theories of etiology may have prejudiced their diagnoses in undetermined ways. This latter source of contamination could be held in check to some extent by the American coders by referring to the symptom checklist that was derived from the simple descriptions of the patients' behavior and complaints at admission to the hospital. Such description is much less susceptible to distortion in the psychiatrist's rendering of the case, and in the few instances where the formal diagnosis recorded in the folder seemed at odds with our (American) precepts, preference was given to the latter. Nevertheless the possible confounding of development with adult diagnosis remains the principle threat to the validity of this study. The subclassifications, types of schizophrenia, depression, etc. were based on American models, but that presents no serious problem since these do not in any major way clash with German diagnostic models.

Finally the level of constructs used in explaining hypothesized relationships between childhood and adult behavior grows predominantly out of American thinking. However the conflict between German and American approaches need not be problematic for two reasons. First, data on childhood characteristics is generally validated cross-culturally (Astrup and Noreik, 1966; Phillips, 1968). Secondly, even if there are broad cultural differences in the social significance of the behaviors studied here, this would not threaten the validity of the positive findings regarding social development.
Indeed this would seem to strengthen the case for the validity of those hypotheses. If cultural differences should have distorted the results of this study it would have relevance only for that portion of the study dealing with childrearing and parenting behavior; here the potential distortion would have the effect of creating type II errors in our reasoning, for example, to conclude that the theory about parental relations was wrong when it was in fact correct. Hence, the "conflict between cultures" would exert only a conservative influence on the interpretation of these data.

A related issue is the problem of the population used for the study. Patients were post-war Germans most of whom were born in the thirties, spent their childhoods during the Nazi and post-war period and their adult lives during the economic boom of the 1950's. It is difficult to measure the additional effects of personal trauma and loss for these patients nor the effects of a national depression following World War II. In particular this population had a high rate of fathers absent during childhood. Consequently, we cannot be sure how representative the patients in this study are of German psychiatric patients from other historical periods or of psychiatric patients in other cultures and historical contexts. The longitudinal patterns found here may be generally valid, but one cannot be certain.

A final word about the social implications of diagnosis and about the retrospective approach used here. With regard
to formal diagnosis, one must differentiate between labeling and the use of labels. There are, to be sure, strong social implications of diagnosis. To take one example, psychotic patients can be thought of as having poor prognosis and treated with this bias in mind. Unfortunately, patients can lose their individuality by "becoming" the diagnosis. In these cases there is a disturbing self-fulfilling and reifying aspect to the use of labels. The use of diagnosis in this study is as a hypothetical construct. And as with all hypothetical constructs, it is helpful for understanding. In this case it is used to identify under a certain rubric, symptoms to be related to childhood traits. The findings here indicate that, from the viewpoint of social development, the diagnostic labels still in use today may mislead us in our pursuit of etiology: antecedent behaviors need not neatly distinguish psychotic from non-psychotic patients, as our preconceptions had led us to expect. Empirical pursuit of the data led us to a social-historical perspective that cut across the boundaries imposed by our original diagnostic categories.

Garmezy's recent survey of work in schizophrenia points to the outdated nature of retrospective work (1964). His argument is based primarily on the fact that there is less problem with data insufficiency or variability in prospective work than there is with hospital records used in retrospective research. Also, Garmezy points out, schizophrenics have
not yet been labelled as "schizophrenic" if studied prior to onset, and therefore researchers are less biased in describing the populations under study. But it is important to consider the advantages and disadvantages to both approaches. Retrospective studies use previously recorded data, insuring that records were written by people unbiased to the hypotheses under study. Also, there are few problems with loss of personnel and these studies are easier to complete. Retrospective studies, in that they are more economical, provide theoretical leads for prospective research to pursue.

The results and subsequent discussion above suggest several avenues for further research. Most striking is the notion of a predisposition to depression representing a continuum of severity and that of the schizoid character type representing an alternate dimension with poorer prognosis for recovery. Within either dimension one can think of a functional psychiatric disorder as a gradation of impairment, during the period of acute breakdown, with some depressives and some schizoid types showing extreme impairment and others showing mild impairment. In addition the social-historical continuum cuts across the boundaries of psychotic and non-psychotic patients. It would be instructive to determine the prognosis of the "other neurotic" types relative to the schizophrenics and relative to the "depressive neurotics." One might conjecture that their prognosis would be poorer than that of the depressive neurotics and conceivably better than
that of the psychotic depressives.

In addition, if the theoretical framework presented here is correct, then a major problem for the schizoid character types is a serious insufficiency in characterological development along with a long history of withdrawal. From this one might infer that a major emphasis in treating these patients early should include the development of vocational and social skills within a matrix of exploring the mechanism of withdrawal. Perhaps our treatment formulations should in general take into consideration the schizoid versus pre-depressive dimensions rather than the traditional psychotic non-psychotic dichotomy.

With regard to the parenting variables, the results imply a greater conflict with parents for those children who later develop a schizophrenic adjustment. A more specific delineation of the nature of this conflict, and in addition of the similarities and differences between the schizoid and pre-depressive groups in general are required. The discrepancy between the patients' retrospective views of parenting and their parents' views suggest research examining the variables of parenting from an interactional viewpoint which emphasizes this discrepancy of perceptions of parenting.

Finally, there are large amounts of data available to us in hospital records that should not go to waste. The recorded histories of patients can afford insights into longitudinal relationships between childhood behavior and psychiatric disorder.
CHAPTER V
SUMMARY

The primary purpose of this study was to examine the childhood antecedent behaviors of two psychotic patient populations, "psychotic depressive" patients and "schizophrenics." In addition, two other groups of non-psychotic patients were analyzed for further comparison.

The patients used in this study were a group of 444 men and women hospitalized at a university hospital in Germany. Using information in hospital records, patients in the four major diagnostic groups were rated on a variety of historical-social variables and childhood personality traits by medical students serving as research assistants. In addition, patients and a friend or relative of each patient were asked to complete questionnaires on childhood variables and characteristics of the parents. The medical students also filled out a symptom check list on the basis of which two other raters later classified the patients in six diagnostic categories—schizophrenic, psychotic depressive, neurotic, drug abuser, anorexic and psychosomatic. Due to insufficient numbers of patients, these last two groups were later dropped from the analysis. The four major categories were then redivided into sub-categories making ten groups in all—schizoaffective schizophrenics, paranoid schizophrenics, simple schizophrenics, psychotic depressives, cyclothymic depres-
sives, manic, depressive neurotics, other neurotics, alcohol drug abusers and abusers of other drugs.

It was hypothesized that the two major psychotic groups would manifest differential premorbid behavior styles and that parenting styles of these two groups would differ as well. The dimensions of these differences were based on the integration of literature on the premorbid behavior of the two psychotic groups with the work of Phillips and Zigler on the relationship between different psychiatric symptoms evident at breakdown and corresponding outcomes.

The literature on schizophrenia suggested that during childhood these patients were shy, isolated and socially inactive. Furthermore, they had a distant and conflictual or close and conflictual relationship with their mothers concurrent with a distant relationship with their fathers. The scant literature on premorbid behavioral antecedents to depression suggested a strong internalization of social values and the development of a high degree of competence, orderliness and conforming behavior. These patients' parents, the literature suggested, emphasized strict adherence to social rules. The work of Phillips and Zigler organized symptoms of psychiatric patients at breakdown into three clusters, those characterizing a style of "turning against others," those of "turning way from others" and those of "turning against the self." Their work showed that those patients with symptoms of "turning away from others" had poorest prognosis for recov-
very, while those showing symptoms of self deprivation or "turning against the self" had the best prognosis. By a temporal reversal of the Phillips and Zigler notion of continuity, I hypothesized that those patients showing symptoms of "self deprivation and turning against the self", would likely have shown the high achieving, competent, socially active behaviors described in the literature on behavioral antecedents to depression. Their symptoms would then reflect guilt and anxiety about not meeting internalized needs for high social achievement. Those patients showing symptoms of "avoiding others"—withdrawal, suspiciousness, apathy and depersonalization—would have been shy, withdrawn, possibly oppositional and socially passive as children, precisely those behaviors described in the literature on antecedent behaviors to schizophrenia. These patients, having achieved little social competence would react quickly to outside stresses and possess little ability to adequately relate with others. I hypothesized that the parents of these children would not foster strong adherence to social values; the parents of children who later developed a depressive adjustment would stress high social achievement; these parents would be more strict. Fathers of schizophrenics would be more distant and mothers would be distant and conflictual or close and conflictual. The depressives would show personality traits congruent with the development of high social competence while the schizophrenics would show, as children, behaviors congruent with
patterns of withdrawal and avoidance of others.

Generally, results showed striking differences in the childhood antecedent behaviors of the two psychotic groups in line with the hypotheses. The schizophrenics were characterized as late developers, oppositional, isolated, socially passive, shy, dependent and unassertive. The depressives were lively, orderly, persistent and competent as children. They were rated as having a higher capacity for relationship, and slightly higher intelligence. Results showed few significant differences on a variety of parenting variables however.

In addition to the differential premorbid behavioral patterns between the two psychotic groups, neurotic patients with primary depressive symptoms showed premorbid behaviors similar to those of the depressives and the behavioral antecedents for the "other neurotics" were in many cases the same as those of the schizophrenics. Taking these results into consideration, a more useful distinction with regard to psychiatric disorders would be between a schizoid dimension and a pre-depressive dimension rather than between psychotics and non-psychotics. The schizoid character type would vary from severe dysfunction (schizophrenic adjustment) at breakdown to less severe dysfunction (neuroses consisting mainly of character disorders and pattern disturbances). The pre-depressive continuum in a like manner would vary from psychotic depression to less severe depressive neuroses.

Several avenues for further research are suggested by
the results of this study. The notion of two differing predispositions, that of a schizoid character type versus a pre-depressive character type should be explored further with regard to prognosis. In particular, the results suggest a determination of the prognosis of neurotics with character disorders versus depressive neurotics. Also needed is further work on relating treatment formulations to antecedent behavior. And finally far more work identifying parenting variables, with a possible focus on discrepant views of parenting is suggested. In general it appears that much more information can be gleaned from already existant hospital records as they can afford insight into the descriptive and behavioral antecedents of psychiatric disorders.
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APPENDICES
APPENDIX A

A. Demographic Data

Case Record #
Name

1. Number of admissions  2. Occupation
3. Sex (1=male, 2=female)  4. Date of birth (day-mth-yr)
5. Marital status (1=single, 2=married, 3=widowed, 4=separated, 9=unknown)
6. Religion (1=Prot., 2=Cath., 3=Jewish, 4=other, 9=unknown)
7. Date of admission (day-mth-yr)
8. Date of release (day-mth-yr)
9. Final diagnosis
10. Suicide attempt (1=yes, 2=no, 3=suspected, 9=unknown)
11. College degree (0=no, 1=student, 2=yes, 9=unknown)
12. Social Class (1=high to 9=low, 0=unclassifiable)
13. Treatment (62=shock, 63=drugs, 64=other medicine; 65=psychoanalysis, 66=covering therapy, 67=other psychotherapy, 68=group therapy)
14. Therapy success at release (0=irrelevant, 1=cured or improved substantially, 2=good improvement, 3=little improvement, 4=unchanged, 5=worse, 6=died, not autopsied, 7=died and autopsied, 8=no unequivocal rating possible, 9=unknown)
15. Sibling rank: ______ of ______
16. Occupation of father or head of family
17. Schooling: Public ___; Middle ___; Higher ___;
   Univ. ___; Years ___; Failed ___; Apprenticeship ___;
   Completed: Grammar school certificate ___ Abitur ___.
   College certificate ___
18. Nervous disorders in the family
Comments:
### APPENDIX B

#### Case Record

<table>
<thead>
<tr>
<th>Name</th>
<th>Marked</th>
<th>Absent</th>
<th>Present</th>
<th>Perversion</th>
<th>Phobia</th>
<th>Regressive Behavior</th>
<th>Sleep Disturbance</th>
<th>Sexual Problems</th>
<th>Somatic Complaints</th>
<th>Guilt Feeling (Neurotic)</th>
<th>Delusional Perception</th>
<th>Illusions</th>
<th>Criminal Behavior</th>
<th>Withdrawal</th>
<th>Compulsions</th>
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#### Comments

**Provisional Diagnosis:**

- Floridness of symptoms: __f__lorid; __moderate; __slight; __c__an't be judged

- Subjective anguish (=can't be judged)

- Delusional content: __grandeur; __persecution; __love or jealousy; __depressive guilt

- Hallucinations: __visual; __auditory; __haptic; __other

- Thought disorder: __paralogical; __confused (manic) __disorganized

- Motoric retardation

- Nervousness (agitation)

- Agitation

- Depression

- Loss of appetite

- Loss of energy

- Depersonalization

- Suicide

- Inappropriate behavior

- Ruminations

- Manic excitement

- Negativism

- Perversion

- Anxiety

- Aggression

- Guilt feeling (neurotic)

- Sleep disturbance

- Sexual problems

- Somatic complaints

- Guilt feeling

- Delusional perception

- Illusions

- Criminal behavior

- Withdrawal

- Compulsions

- Thought disorder

- Hallucinations

- Suicidal ideation
### APPENDIX C

Case Record #
Name

#### C. Personality Development

<table>
<thead>
<tr>
<th>Ratings (3=extreme; 1=normal; 9=can't be rated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ___ childhood illnesses</td>
</tr>
<tr>
<td>2. ___ childhood neurotic symptoms</td>
</tr>
<tr>
<td>3. ___ late development</td>
</tr>
<tr>
<td>4. ___ orderly</td>
</tr>
<tr>
<td>5. ___ aggressive</td>
</tr>
<tr>
<td>6. ___ lively</td>
</tr>
<tr>
<td>7. ___ sensitive</td>
</tr>
<tr>
<td>8. ___ oppositional</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ratings (5-1; 9=can't be rated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. ___ Social relations: sociable - isolated</td>
</tr>
<tr>
<td>10. ___ Persistence: strong - limited</td>
</tr>
<tr>
<td>11. ___ Social initiative: active - passive</td>
</tr>
<tr>
<td>12. ___ Capacity for relationship: high - low</td>
</tr>
<tr>
<td>13. ___ Intelligence: high - low</td>
</tr>
<tr>
<td>14. ___ competent - incompetent</td>
</tr>
</tbody>
</table>

#### Family relations

<table>
<thead>
<tr>
<th>___ Child rearing (5=strict; 1=permissive; 9=can't rate)</th>
</tr>
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<tbody>
<tr>
<td>15. ___ Preferred parent (5=father; 1=mother; 9=can't rate)</td>
</tr>
<tr>
<td>16. ___ Relation to father (5=distant; 1=close; 9=can't rate)</td>
</tr>
<tr>
<td>17. ___ Relation to father (3=conflictual; 1=harmonious; 9=can't rate)</td>
</tr>
<tr>
<td>18. ___ Relation to mother (5=distant; 1=close; 9=can't rate)</td>
</tr>
<tr>
<td>19. ___ Relation to mother (3=favorable; 1=averse; 9=can't rate)</td>
</tr>
</tbody>
</table>
20. ___ Relation to mother (3=conflictual; 1=harmonious; 9=can't rate)

Description of parents

Age at onset of symptoms (approximate) _____
Age at first intimate friendship (approximate) _____
Age at first sexual experience (approximate) _____
Pathogenetic factors in first illness: Manifest _____
                              Latent _____

Comments
APPENDIX D

Directions: We would like to ask you to judge your own personal style as a child under 16 years of age. Judge as you were at that time, according to your own opinion. (Similar instructions were given to other referees with appropriate changes made.)

Your name ________________ Referee: Patient himself or alternatively other person relation to patient patient's age when first known

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>quiet □</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>oppositional □</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>gregarious □</td>
<td>□</td>
<td>□</td>
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<tr>
<td>delicate □</td>
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<td>□</td>
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<tr>
<td>independent □</td>
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<td>□</td>
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<tr>
<td>excitable □</td>
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<tr>
<td>well-behaved □</td>
<td>□</td>
<td>□</td>
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<tr>
<td>unassertive □</td>
<td>□</td>
<td>□</td>
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<tr>
<td>thick-skinned □</td>
<td>□</td>
<td>□</td>
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<tr>
<td>able □</td>
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<td>□</td>
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</table>

1. Separated for more than a year from biological father or mother before 16th birthday? Yes □ No □

2. Years of your age when separated from:
   a. father 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 never (circled)
   b. mother 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 never (circled)

3. Substitute for lost parent?
   Yes □ No □ Lived in orphanage □

4. Years of your age spent with substitute parents:
   a. substitute father 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 none (circled)
   b. substitute mother 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 none (circled)

With reference to parents with whom you spent the longest time (biological or substitute parents) . . .
5. On which parent did you depend the most?
   Father □ both equally □ Mother □

6. Which parent played the leading role in the marriage?
   Father □ both equally □ Mother □
Rate as you did yourself above. (Rate parents of patient as you did patient above.)

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father</td>
<td>strict</td>
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<tr>
<td></td>
<td>gregarious</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>excitable</td>
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</tr>
<tr>
<td></td>
<td>conciliatory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>strict</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gregarious</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>excitable</td>
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</tr>
<tr>
<td></td>
<td>conciliatory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cool</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 1: strict, gregarious, excitable, conciliatory, cool
- 2: permissive, reserved, even-tempered, domineering, warm-hearted
- 3: permissive, reserved, even-tempered, domineering, warm-hearted
APPENDIX F

Manual for Personality Development Questionnaire

The ratings on personality development were made by medical students serving as research assistants. The criteria for each rating were agreed upon prior to the evaluation of the hospital records. All judgments were subjective judgments. In each case the child was referred to as having the traits outlined below or criteria were inferred from descriptions of the child's behavior. As these questionnaires were written in German and administered to a German population, several of the adjectives have a slightly different meaning or value in German than in English. When this is the case mention of this fact has been made in the description of the adjective. Criteria appear below:

1. childhood illness -- refers to the usual childhood diseases (mumps, chickenpox, etc.), frequent absence from school because of minor physical complaints, operations, frequent or extended hospitalizations.

2. childhood neurotic symptoms -- refers to usual neurotic symptoms such as nailbiting, thumbsucking, "finicky eating", night terrors.

3. late development -- refers to the usual childhood milestones such as sitting, walking, talking, physical growth, late social maturation, excessive dependency of parents, retarded psycho-motor development.

4. orderly -- this is a highly valued trait often used by Germans in describing children. "Orderly" indicates that a child is well brought up, not chaotic, responsive and responsible, shows respect toward adults. Such behavior manifests itself in social interactions as well as "proper" behavior in the home as evidenced by picking up one's room, helping with chores, etc.
5. **aggressive** — refers to being abrasive, "acting out" at school and at home, having run-ins with the law, getting into fights, bullying other siblings (does not refer to assertiveness).

6. **lively** — refers to being full of temperament, emotional, exhibiting high activity and spiritedness.

7. **sensitive** — refers to indicators of weakness including physical weakness, emotional brittleness, thin-skinnedness, vulnerability.

8. **oppositional** — indicates that child is defiant, independent-minded, negativistic, non-compliant, possibly disobedient.

9. **social relations** — a general measure of extroversion-introversion as measured by relationships with peers, orientation to new situations, quality of friendships, and adolescent experience with the opposite sex.

10. **persistence** — refers to assertiveness, persistence, goal-orientation, determination. This adjective refers to interpersonal style as measured by whether the child "carries his own weight" in social relations, academic and vocational work; it also includes his persistence in hobbies and his private life.

11. **social initiative** — refers to interpersonal leadership qualities, as measured by whether the child takes initiative in social experiences, is a leader or follower, has a strong desire to undertake an activity or relationship, and whether the child shows enterprisingness in the social realm.

12. **capacity for relationship** — related to capacity for attachment to others with special emphasis on long-term relationships.

13. **intelligence** — this refers to the psychiatrists' impressions about intellectual ability as inferred from comments about the child's school work, general level of sophistication and social awareness. This is a very crude measure as no testing was done. The inferences were based on the number of failures in school and reports about the child's cleverness.

14. **competent** — a common adjective used to describe children. This refers to resourcefulness, diligence, capability and versatility as applied to the child's work.

15. **childrearing** — references to childrearing practices as made by parents, descriptions of parents' characteristic discipline, or inferences made from comments on interpersonal re-
lations between parent and child. For example — issues about curfews, differences between child and parents on religious values or ethical issues.

16. **preferred parent** — determined by the fact that referee said explicitly or implied through a description of the child-parent relationship, a distance from or preference for one parent or another. Raters also considered demographic facts such as illness or absence of parent.

17.-20. Based on any description of the relationship between parents and child along dimensions of conflict and closeness. If no information was available and otherwise characteristics of the parent-child relationship were normal, then harmonious and non-conflictual relations were assumed. If the information was "sketchy" then no rating was made.
Table I
Summary of Means of the Four Patient Groups on Several Historical Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Diagnostic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Schizophrenics (n = 90)*</td>
</tr>
<tr>
<td>Childhood Neurotic Symptoms</td>
<td>C-2</td>
<td>1.30</td>
</tr>
<tr>
<td>Late Development</td>
<td>C-3</td>
<td>1.10</td>
</tr>
<tr>
<td>Orderliness</td>
<td>C-4</td>
<td>1.16</td>
</tr>
<tr>
<td>Liveliness</td>
<td>C-6</td>
<td>1.20</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>C-7</td>
<td>2.18</td>
</tr>
<tr>
<td>Oppositionalism</td>
<td>C-8</td>
<td>1.40</td>
</tr>
<tr>
<td>Social Relations</td>
<td>C-9</td>
<td>2.14</td>
</tr>
<tr>
<td>Persistence</td>
<td>C-10</td>
<td>2.50</td>
</tr>
<tr>
<td>Social Initiative</td>
<td>C-11</td>
<td>2.28</td>
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<tr>
<td>Capacity for relationship</td>
<td>C-12</td>
<td>2.86</td>
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<tr>
<td>Intelligence</td>
<td>C-13</td>
<td>2.87</td>
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<tr>
<td>Competence</td>
<td>C-14</td>
<td>2.94</td>
</tr>
<tr>
<td>Relation to Father</td>
<td>C-18</td>
<td>2.00</td>
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<tr>
<td>Marital Status</td>
<td>A-5</td>
<td>1.31</td>
</tr>
<tr>
<td>Extent of Education and Training</td>
<td>A-17</td>
<td>a) Years of Schooling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) School failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Vocational apprenticeship</td>
</tr>
</tbody>
</table>

*Frequencies vary slightly from one variable to another.
Table II
Means of Four Patient Groups on Significant Self Rating Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Schizophrenics (n = 49)*</th>
<th>Depressives (n = 90)*</th>
<th>Neurotics (n = 73)*</th>
<th>Drug Abusers (n = 21)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>gregarious-shy</td>
<td>2.00</td>
<td>1.69</td>
<td>2.00</td>
<td>1.76</td>
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<tr>
<td>independent-dependent</td>
<td>2.25</td>
<td>1.84</td>
<td>2.06</td>
<td>2.00</td>
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<tr>
<td>unassertive-assertive</td>
<td>1.79</td>
<td>2.17</td>
<td>1.84</td>
<td>2.32</td>
</tr>
</tbody>
</table>

*Frequencies vary slightly from one variable to another.*
Diagram 1. Antecedent Behaviors for Schizophrenic Patients and Psychotic Depressive Patients

**Schizophrenics**
- shy
- dependent
- unassertive
- relationship with father more distant and conflictual
- more years of school
- late development
- oppositional
- sensitive
- isolated
- socially passive
- childhood neurotic symptoms
- conflictual and distant with mother

**Psychotic Depressives**
- parents not different on:
  - gregarious
  - reserved
  - excitable-even-tempered
  - conciliatory-domineering
  - cool-warm-hearted
  - % earned college degree
  - conflictual with mother
- lively
- persistent
- competent
- high % married (if young)
- slightly more intelligent
- higher capacity for relationship
- not oppositional
Diagram 2. Antecedent Behaviors for Schizophrenic Patients, Psychotic Depressive Patients and Neurotic Patients

Schizophrenics
- shy
- dependent
- distant and conflictual with mother
- unassertive
- relationship with father distant and conflictual
- more years of school
- childhood neurotic symptoms
- school failure
- not oppositional (schizophrenic and neurotic others)
- late development

Psychotic Depressives
- conflict with mother
- parent variables
- competent
- persistent
- socially active
- capacity for relationship high
- lively
- slightly more intelligent

Neurotics