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AN EGO PSYCHOLOGICAL VIEW OF EARLY CHILDHOOD
DEVELOPMENT AND ITS APPLICATION TO CHILDHOOD PSYCHOSIS

City University of New York

PH.D.

1980

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DEVELOPMENT AND ITS APPLICATION TO
CHILDHOOD PSYCHOSIS

by

Adena Greenberg

A dissertation submitted to the Graduate Faculty
in Clinical Psychology in partial fulfillment of
the requirements for the degree of Doctor of
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1980

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ADENA GREENBERG

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This manuscript has been read and accepted for the Graduate Faculty in Clinical Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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PREFACE

The purpose of the following paper is to demonstrate the usefulness of an integrated ego psychological view of normal development for the conceptualization, diagnosis and treatment of childhood psychosis. To achieve this aim, ego psychological conceptions of early development and their application to childhood psychosis will be presented in the context of other theoretical approaches to psychotic disturbances in children.

Chapter I consists of a review of the literature on childhood psychosis based upon the major models of the disturbance which have been proposed. The "descriptive" approach is examined in terms of the delineation of symptomatic criteria for diagnostic purposes, the use of single descriptive dimensions for classification, and the general gathering of descriptive data. An alternate "etiological" approach is discussed by way of studies concerning organic, environmental, dualistic and interactional factors. Major controversies in the literature are also set forth.

In Chapter II, a critique of the literature focuses on the conceptual and clinical shortcomings of the models presented. A proposed ego psychological model of childhood psychosis is then highlighted to demonstrate its theoretical and clinical advantages. Theories of childhood psychosis which are consistent with an ego psychological approach have been contributed to the literature but have not been synthesized or recognized as such. These are therefore brought together and reviewed in Chapter III. Their views on the

diagnosis, characteristic ego functioning, and etiology of childhood psychosis are summarized.

The central proposition of the paper is that childhood psychosis represents the outcome of developmental processes which have severely deviated from a normal course of development. The author thus maintains that a firm grasp of normal development is a critical prerequisite for understanding, diagnosing and treating childhood psychosis. The comprehensive and holistic ego psychological concepts of normal personality development are seen as providing the necessary tools for assessing the particular psychopathological distortions in individual cases of the disturbance and for formulating corresponding treatment approaches. Based upon the works of Heinz Hartmann, Anna Freud, René Spitz and Margaret Mahler, an ego psychological view of general developmental principles and of normal ego and object relations development is explicated in Chapter IV. This view centers on the progressive differentiation and integration of the ego within the matrix of early object relations development up to and including the separation-individuation phase. Further, it stresses 1) that development is shaped by the continuous interplay of internal and environmental variables, 2) that a normal unfolding of object relations is the sine qua non of normal ego development, and 3) that the processes of personality development are defined by the ongoing and intricate interactions between ego and object relations development.

In Chapter V, an ego psychological model of childhood psychosis is proposed. Stressing the integration of diagnosis and treatment, a

proposed ego psychological model of childhood psychosis outlines diagnostic and psychotherapeutic principles and methodology. It is suggested that the diagnostic assessment of childhood psychosis continue throughout treatment, utilize descriptive, behavioral data for analyzing underlying developmental processes, and investigate past and present ego and object relations development. The proposed model contends that the major goal of psychotherapy with the psychotic child is to improve adaptation through the corrective resumption of developmental processes. Given that normal developmental progress is viewed as dependent upon the facilitative context of healthy object relations, a psychotherapeutic approach is formulated wherein the therapist, as maternal substitute, relives early stages of object relations development with the child in order to promote a more optimal unfolding than originally occurred. In addition, the need for and nature of environmental adjuncts to the psychotherapy are elucidated.

In the final chapter of the paper, the proposed ego psychological model is applied to case material from the extended diagnosis and treatment of a psychotic child. A case history and two treatment summaries are presented and examined in light of the major theoretical and clinical propositions of the model.

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CHAPTER I: A REVIEW OF THE LITERATURE
ON CHILDHOOD PSYCHOSIS

THE DESCRIPTIVE APPROACH

Delineation of Symptomatic Criteria-Syndrome Clusters

The first clinical, behavioral descriptions of schizophrenic children were obtained through direct observation or review of clinical records and are found in the writings of Brill, Kasanin, Kaufman, and Potter (Ekstein et al., 1958). The limitation of the early reports, as noted by Ekstein, was their application of adult descriptive criteria to children and their implicit failure to understand the symptoms of schizophrenic children with respect to given developmental and maturational levels. It was Bradley in the mid-to-late 40's who stressed the inappropriateness of uniformly applying adult criteria in light of the developmental immaturities found in children (Ekstein et al., 1958).

Kanner's description of "infantile autism" (Kanner, 1943, 1949) was among the first attempts to delineate the behavioral characteristics of a syndrome unique to children. Taking into account his later revisions (Eisenberg & Kanner, 1956), he viewed the two pathognomonic features of early infantile autism as the extreme detachment from people from the time of early infancy and the anxious need to preserve sameness. The secondary descriptive features he delineated included skillful, even affectionate relations with inanimate objects, pensive, intelligent physiognomy, severe disturbances of language (including

mutism, delayed acquisition, speech peculiarities, and lack of communicative intent), and good cognitive potential with isolated areas of exceptional skill such as excellent rote memory.

Following in Kanner's tradition, numerous investigators continued to search for descriptive parameters such as the nine criteria proposed by Creak (1961, 1963) to diagnose early childhood psychosis or childhood schizophrenia. Although Creak did not stipulate that all nine or any one particular criterion be met, she found grossly impaired object relations in 67 of 68 children studied. In addition, overall retardation with islets of higher functioning was seen by some of her co-workers as a sine qua non of the syndrome. To three of Kanner's criteria, namely, the need for sameness, impaired social relations and abnormal language development, Creak added the presence of retardation, excessive anxiety, abnormalities of perceptual and motor patterning, preoccupation with objects without regard to their functional use, and lack of age-appropriate self-awareness. Ornitz and Ritvo (1968) considered Creak's approach as most similar to their own in that her nine criteria overlapped the five symptom clusters they themselves proposed.

Ruttenberg (1971), who added seven criteria to Kanner's original syndrome cluster, as well as Rutter (1969; Bartak & Rutter, 1976) both utilized a descriptive approach. Rutter (1971) saw delayed language as a third pathognomonic feature of autism and differed from Kanner (as did Creak), in regarding manifest retardation as actual retardation, despite the presence of higher intellec-

tual potential in circumscribed areas. Despite basic agreement with Creak, Rutter, like Kanner, differed in requiring onset in infancy. Also, Rutter excluded items such as excessive anxiety which he felt did not distinguish infantile autism from other psychiatric disturbances. Wolff and Chess (1964) studied the behavior of 14 children whom they diagnosed as having early infantile autism and disputed Kanner's primary criterion of sustained resistance to change.

Diagnostic use of extensive descriptive criteria is exemplified in Polan and Spencer's (1959) 30-item checklist of symptoms of early infantile autism. Based on Polan and Spencer's list, Rimland (1971) devised an even more extensive checklist method of diagnosing early infantile autism and differentiating other childhood psychosis. DeMeyer et al. (1971) compared the five diagnostic systems of Rimland, Polan and Spencer, Lotter, Creak, and DeMeyer and Churchill in order to evaluate the degree of correspondence between them. He concluded that the diagnostic systems achieved "reasonably good agreement" in differentiating the group of early schizophrenic and autistic children from nonpsychotic children but did not achieve reliability in establishing more refined definitions of the subcategories within the larger group of psychotic children.

Single Descriptive Dimensions as Bases for Classification

AGE OF ONSET

There exist in the literature on childhood psychosis systems of diagnostic classification which are based on one single descriptive

dimension alone rather than on the presence of symptom clusters. Age of onset of symptoms has been used for such classification purposes. Bender (1947) found that schizophrenic children fell into three groups distinguished by onset either before age 2, between 3 and $4\frac{1}{2}$, or between 10 and $11\frac{1}{2}$. According to Bender, a single disease entity named "childhood schizophrenia" makes its appearance in different pathological manifestations at different ages. Unlike Bender, other investigators who used age of onset as a basis for classification believed there are different pathological entities with onset at different ages that are not merely differing manifestations of a single disease entity. Eisenberg's (1967) first group is characterized by a syndrome similar to Kanner's with onset usually in early infancy but sometimes as late as the second or third year. His second group sustained a period of normal development until onset of the illness at ages 3, 4 or 5 with a common precipitant being a vague illness characterized by regressive behavior such as incontinence or loss of speech. His third group showed onset in adolescence or immediately before puberty with a clinical presentation which most closely approximates adult schizophrenia.

Despert and Sherwin (1958) and Rutter et al. (1967) presented parallel classifications of childhood psychosis according to age of onset. According to Despert and Sherwin, the "autistic psychosis" has its onset in the first year, shows strikingly little communication from early on, and meets the criteria set forth by Kanner. The "schizophrenic illness" has a later onset and a wider variety of symptoms, possibly because it appears later in development. And the "psychosis in mentally

defective children" presents an overall depression of intellectual functioning or generally retarded motor development, without the serious disturbance in affective contact found in the other two groups. Rutter's parallel classification included "infantile autism" with onset before 2, "childhood schizophrenia" with onset after 8, and a heterogeneous group of organic psychoses with onset and regression between ages 3 and 8. Examining the findings of Kanner, Bender, Despert, Rutter, and others, Miller (1975) found that a uniform pattern emerged comprised of three basic age groups corresponding to ages birth to 3, 3 to 5, and beyond 5. Yet despite their agreement about age ranges, the investigators who used age of onset as a primary basis for classification varied widely concerning the etiology and the significance of the symptomatology of each age group.

TYPE OF ONSET

Type of onset has also been used to distinguish subgroups of childhood psychoses. Reporting on 29 children followed from ages 1½ to 6, Despert (1938) found childhood psychoses with acute onset, with insidious onset, and with insidious onset followed by an environmentally precipitated acute episode. Hingtgen and Bryson (1973) summarized the findings of four studies on the proportion of childhood psychosis with gradual onset from birth and cited estimates ranging from 50 to 69%. In addition, they reported studies which pointed to a maturational factor on the grounds that behavioral symptoms are most pronounced at approximately age 3 and tend to decrease in severity be-

tween ages 5 and 6.

CHOICE OF DEFENSE MECHANISM

Utilizing another single, descriptive dimension, Bender (1956) classified childhood schizophrenia according to the nature of the defense mechanisms employed against anxiety. The "pseudo-defective" child presents as autistic, retarded, inhibited and withdrawn, and is likely to have been maturationally retarded from the beginning or to have regressed after an early period of normal or even precocious development. The "pseudo-neurotic" child presents a variety of neurotic manifestations such as anxiety, phobias, obsessions, compulsions, hypochondriasis, and psychosomatic symptoms. And the "pseudo-psychopathic" child manifests tendencies towards aggressive, antisocial, and acting-out behavior which are not accompanied by insight, anxiety or guilt and are often characterized by negativism toward authority, difficulty with peers, and paranoid features.

Descriptive Studies

EPIDEMIOLOGICAL FACTORS

Early infantile autism has been studied epidemiologically, yet Wing (1963) pointed to the inherent difficulties arising from the lack of objective diagnostic criteria. Noteworthy among epidemiological investigations is Treffert's (1970) study of 280 autistic or schizophrenic children, 12 or under, identified in a five-year period in all of Wisconsin's mental health facilities. Subdividing his sample into

three groups of classical infantile autism, childhood psychosis with later onset, and psychosis complicated by demonstrable organicity, he found 25%, 57%, and 18% in the three groups respectively. He found the prevalence rate of childhood schizophrenia and infantile autism to be 3.1 in 10,000 children, a rate 1/100 that of mental deficiency and 1/10 that of adult schizophrenia. Reviewing studies of prevalence rates in the United States and England, Hingtgen and Bryson (1973) cited similar estimates ranging from 2 to 4.5 per 10,000. While Hingtgen and Bryson found no reports of a clear relation between autism and birth order, Treffert found the lowest frequency of first born males in his autistic group and an overall low incidence of first born males in the sample as a whole. Hingtgen and Bryson, as well as Treffert, found a higher frequency of childhood psychosis in males than in females, with Treffert proposing a 3.4:1 ratio and Hingtgen and Bryson citing estimates ranging from 2:1 to 4.25:1. Investigating possible physiological factors associated with childhood psychosis, Treffert found a low incidence of abnormal EEG's and of pre- and perinatal complications but found histories of organic insult in 1/3 of the autistic cases, 1/4 of the psychoses with later onset, and 1/2 of the psychoses with demonstrable organicity. The main precipitants of the psychoses, reported in 43% of the cases studied, were an organic illness in the child or the birth of a sibling.

FAMILY CHARACTERISTICS

In his earliest writings, Kanner (1943, 1949) described a char-

acteristic type of family constellation as part of the syndrome and basic cause of infantile autism. He saw the parents of autistic children as obsessive, emotionally undemonstrative, and impersonal and mechanical in their relationships. He noted their high intelligence and high level of intellectual and socioeconomic attainment. Similarly, Rutter (1965) found high intellectual and educational status in the parents of autistic children and Treffert (1970) found that his autistic group differed from the other two groups in terms of the high educational and occupational attainment of the parents. Despite the agreement among Kanner, Rutter and Treffert, higher intelligence, education and socioeconomic status in parents of psychotic children compared with parents of other clinical groups is not uniformly reported. Neither has there been consistent data to support Kanner's suggestion that parents of psychotic children are cold, mechanical, aloof and introverted as compared with parents of other clinical groups or parents in the general population (Hingtgen & Bryson, 1973).

In considering the question of family history of mental illness, Kanner and Lesser (1958) and Rutter (1965) concurred on the absence of autism in families of autistic children. Hingtgen and Bryson (1973) similarly found a lower incidence of psychosis in families of psychotic children than in families of other emotionally disturbed groups but found a higher incidence of nonpsychotic affective disorders. Treffert (1970) found a relatively low incidence of major mental illness in all three of his psychotic groups, with an incidence rate of 12.4 in fathers and 24.6 in mothers.

Exploring the dimension of parental age in childhood psychosis, Hingtgen and Bryson (1973) found no evidence for increased paternal age and mixed evidence for increased maternal age. Treffert (1970) found that mothers of autistic children were significantly older than mothers of the other two psychotic groups.

BEHAVIORAL CHARACTERISTICS

The findings of studies on the self-mutilative, toy-play, looking, social, and repetitive behavior in psychotic children discussed below have been summarized by Hingtgen and Bryson (1973). The proportion of schizophrenic children who demonstrate self-mutilation has been found to be relatively high. Its occurrence is reported to correlate positively with infantile headbanging, parental physical abuse, and non-verbalness but not to correlate with I.Q. or cerebral dysfunction. Findings regarding sex differences and self-mutilation have been inconclusive. The suggestion has been made that self-mutilative behavior may initially represent a form of rhythmic activity which later becomes a means of adaptation in children lacking alternate ways of responding to their surrounds (Hingtgen & Bryson, 1973).

Using direct observation or maternal interviews, numerous studies reviewed compared the toy play of psychotic children with that of normal, retarded, brain-damaged and emotionally disturbed children (Hingtgen & Bryson, 1973). Various findings suggested that psychotic children show less appropriate gross motor activity and less combinational, constructive, functional and appropriate usage of toys. More

restricted repertoires of toy play and more repetitive manipulation of toys and of their own bodies were also found in psychotic children. Lastly, it was reported that the play of autistic children is less related to the presence of an adult than that of normal and emotionally disturbed children who often use toy play as a means of interacting with adults.

The limited number of controlled observational studies done on the social behavior of psychotic children confirmed the generally accepted observation that psychotic children exhibit little spontaneous social behavior toward adults and children. Findings on visual fixation, in particular, suggested that autistic children look less at all environmental objects, including adults, than normal children, and that their avoidance responses may be a function of their inability to perform required tasks. The evidence on whether autistic children selectively avoid eye-to-eye or eye-to-face contact is, however, inconclusive (Hingtgen & Bryson, 1973).

Despite difficulties encountered in attempting to distinguish between behaviors that are self-generated and those that are responsive to external stimuli, a large amount of ritualistic and repetitive behavior has been found in psychotic children, including their nonfunctional manipulation of objects and of their own bodies, as well as perceptual behavior. Individual differences have been observed among psychotic children in quantities and patterns of stereotypic behavior yet these differences in types of activity displayed and time spent on them remained stable over time (Hingtgen & Bryson, 1973).

PROGNOSIS, FOLLOW-UP, AND OUTCOME

The extensive effort invested in the search for prognostic signs in childhood psychosis has resulted in the delineation of both positive and negative indicators. Language has been widely recognized as a critical and reliable prognostic factor (Despert & Sherwin, 1958; Eisenberg, 1956; Eisenberg & Kanner, 1956; Fish et al., 1968; Kanner & Lesser, 1958; Rutter, 1969). Eisenberg and Kanner (1956) found that children who developed language by the age of 5 had a better prognosis for future adjustment than children who did not. Eisenberg (1956) followed 63 subjects between the ages of 9 and 25 who as children had been diagnosed as having early infantile autism. He found that 50% of the "speaking" children, i.e., having useful speech by the age of 5, had improved while only 3% of the "nonspeaking" children showed significant improvement. Because Eisenberg assumed that the child with language must be sufficiently related to the human environment to learn to talk, he likewise saw the extent of autistic isolation as a significant determining factor. Based on the view that communicable speech is a critical determinant of outcome, Fish et al. (1968) considered speech a primary measure of severity of schizophrenia in young children. In a group of children 2 to 6 years of age, she found that responses to drug and to nonpharmacological aspects of treatment were both related to the presence or absence of speech. Further, she established a positive correlation between late onset of speech and severity of later schizophrenic disturbance.

To investigate the prognostic implications of intelligence level, Bartak and Rutter (1976) compared mentally retarded autistic children with autistic children of normal intelligence. They found that I.Q. level was a critically important prognostic indicator of good scholastic progress and social adjustment. Rutter (1965) disputed the existing views that I.Q. scores in psychotic children are unreliable and that "untestable children" are often manifesting psychopathology rather than intellectual impairment. In agreement with Rutter, Pollack (1966) found that low intelligence correlates with poor outcome and that circumscribed areas of higher intellectual functioning do not lead to a higher I.Q. later on.

In summarizing follow-up studies of "atypical children," Brown (1963) found that poor outcome (measured in terms of type of school, level of formal learning, and psychological adjustment) was related to the presence of abnormal EEG's, of additional "internal handicaps" (such as a neurological abnormality, impaired vision or hearing), or additional "external handicaps" (such as a psychotic parent). Other internal factors found by Reiser and Brown (1964) to correlate with poor outcome were widespread withdrawal, mutism after 3 years of age, inability to use play materials appropriately, and inability to direct aggression outward. Szurek (1956) studied environmental factors and found that poor prognostic indicators were neglect of a serious illness in early life until late preadolescence, older parents, institutionalization or absence of the home for several years, and multiple changes such as a succession of inexperienced therapists.

Prior to reviewing the findings of further follow-up research on psychotic children, it is important to note the characteristic difficulties, limitations and errors of such studies. Among the obstacles cited by several authors whose views Laufer and Gair (1969) summarized were the inadequacy of diagnostic criteria, the lack of relationship between follow-up and diagnostic criteria, the inconsistency and limited validity of parental reports of improvement, and the difficulty of quantifying improvement. Similarly, Eisenberg (1957a) pointed to the lack of uniform diagnostic criteria for schizophrenic children, the lack of specificity about diagnostic criteria used, and the lack of clarity regarding the definitions of "improvement" and "nonimprovement." These limiting factors must, therefore, be considered when directly evaluating follow-up research.

Several authors (Hingtgen & Bryson, 1973; Laufer & Gair, 1969; Miller, 1975) reviewed the follow-up research and concurred that while the results indicated a poor prognosis for the majority of childhood psychoses, they forecasted a more optimistic outlook regarding individual cases. Eisenberg (1956) followed 63 children with infantile autism for an average of nine years (follow-up ranged from 4 to 20 years), at an average age of 15 years old (age ranged from 9 to 25 years). Of the total subject population, 34 of whom had lived in residential settings and the remaining 29 at home with parents or foster parents, 27% were found to be functioning at a "fair to good" level. Bender (1953) found a 25% positive outcome rate among 120 subjects who had been diagnosed as childhood schizophrenics 5 to 15 years earlier.

And summarizing the world literature on childhood schizophrenia, Eisenberg (1957a) found that most researchers forecasted a similar outlook of a 20 to 30% chance of social recovery. A higher recovery rate was reported by Reiser and Brown (1964) who found that over one-half of 125 children diagnosed with "atypical development" and evaluated between the ages of 9 to 22 were able to function at least moderately well.

Controversy exists as to whether type or duration of treatment affects outcome. Hingtgen and Bryson (1973) reported studies which suggested that treatment is not a relevant factor. Miller (1975), however, maintained that psychoanalytically-oriented therapies may be effective in some cases and that reported behavior modification techniques may alter undesirable behavior, though their effect on ultimate progress is not yet known. In contrast with outpatient treatment, Miller found that institutionalization impairs prognosis. In general, he viewed the prognosis for early onset psychosis as guarded with any of the therapeutic modalities. Both Eisenberg (1957a, 1962) and Rutter (1965) found no incontrovertible evidence for the benefit of various treatment modalities. Hingtgen and Bryson (1973) cited studies reporting high rates of continued institutionalization for psychotic children.

Clinical pictures of "recovered" psychotic children reflect the persistence of abnormalities despite general improvement. A quality of "social unawareness" was found in "recovered" autistic children studied in their late teens (Eisenberg, 1956, 1957a; Eisenberg & Kan-

ner, 1956). Persisting social inappropriateness in maturing schizophrenic children despite satisfactory adjustments to school and work situations was also noted by Weiland (1964). Rutter (1965) followed 63 children with early infantile autism from 9 to 16 years. He found that some lost their autistic features but retained their initially low I.Q. scores. Further, a close correspondence existed between their initial and follow-up I.Q.'s. Rutter concluded, therefore, that low I.Q. in autistic children is not a function of withdrawal and that several phenomena which coexist in children with early infantile autism, namely, autism, retardation and aphasia, are independent phenomena. Reiser (1963; Reiser & Brown, 1964) found that most of the "atypical children" who had not achieved moderate functioning remained more retarded than disturbed.

THE ETIOLOGICAL APPROACH

The search for causal factors occupies a central place in the literature on childhood psychosis, yet identification of etiological variables has been hampered by the lack of clarity that exists regarding the diagnosis of childhood psychoses (Laufer & Gair, 1969). Caplan's (1961) summary of the problem, as cited by Laufer and Gair, is as follows:

Schizophrenia, for instance, however indefinite a diagnosis it may be in adults, is clearly a vague concept indeed as applied to childhood psychoses. In the absence of clearly definable consequent vari-

ables it is hardly surprising that our knowledge of specific antecedent etiologic variables is hazy (Laufer & Gair, 1969, p. 401).

Laufer and Gair (1969) expanded upon this problem:

Furthermore, if one defines "childhood schizophrenia" as a functional disorder without organic precipitants, then one would use organic findings only to "rule out" the diagnosis rather than to add to its explanation. Conversely, if one defines it as organically based, then the clear demonstration of psychological causation would rule out the disorder rather than explain it (p. 401).

Indeed, the diagnostic confusion that exists has lead to the proliferation of abundant etiological theories of childhood psychoses.

These will be reviewed here according to a schematization proposed by Miller (1975) which includes organic, environmental, dualistic, and interaction models.

Theories Concerning Organic Factors

GENETIC FACTORS

Numerous authors have investigated the possibility of genetic contributions to infantile autism and childhood schizophrenia. Based on the fact that an unusual number of monozygotic twins had been reported with autism, Rimland (1964) postulated a genetic factor in infantile autism. Ornitz and Ritvo (1976) cited evidence suggesting that while monozygotic pairs are likely to be concordant for autism, dizygotic pairs are likely to be discordant. Substantive evidence for increased incidence of schizophrenia or histories of autism in the parents or nontwin sibs has not been found (Hanson & Gottesman, 1976;

Miller, 1975; Ornitz & Ritvo, 1976). Hanson and Gottesman, therefore, argued against the theory of genetic transmission in childhood psychosis with onset before age 5. Also arguing against genetic causation, Rutter (1965) extended Eisenberg and Kanner's (1956) finding of low familial incidence with early infantile autism to include all psychoses of early onset. Spence (1976) considered the evidence from twin studies weak but supportive, nonetheless, of a genetic theory. He examined possible chromosomal abnormalities and single gene variations in infantile autism but failed to detect any. He concluded that no evidence exists as yet for a specific genetic mechanism for autism but retained for future exploration the "hypothesis of a polygenic or multifactorial inheritance" wherein many genes could combine to produce the disorder. Several mechanisms might then be responsible for some or all of the cases or it might be that only certain features of the disorder are inherited. Other studies of genetic factors in infantile autism have been reviewed by Miller (1975) and Ornitz and Ritvo (1976) who also regarded the question of a genetic influence unanswered.

A genetic predisposition to childhood schizophrenia has been proposed by Bender (1953, 1956, 1968) and Fish (1976), yet Fish has argued that the genetic, biological vulnerability can be intensified or compensated for depending on the constructive or destructive input of the environment. Rutter (1965) found general agreement that schizophrenia of later childhood has the same familial incidence as adult schizophrenia, and Hanson and Gottesman (1976) found an overlap

of genetic factors in psychoses beginning in puberty and in adult schizophrenia. Though Kallmann and Roth (1956) found that "preadolescence" schizophrenia was genetically related to adult schizophrenia, they did not distinguish between cases with early and late onset of childhood psychosis. An expanded review of genetic studies applicable to childhood schizophrenia as well as a discussion of general principles involved in genetic research can be found in Shields and Slater (1961).

PRE- AND PERINATAL COMPLICATIONS

Studies on pre- and perinatal complications associated with infantile autism in childhood schizophrenia have been reviewed by Miller (1975) and Ornitz and Ritvo (1976). While some authors reported that the incidence of complications is the same in autism and childhood schizophrenia as in nonpsychotic children (Bomberg et al., 1973; Reiser, 1963; Treffert, 1970), others found increased incidence in the psychotic groups (Bender & Faretra, 1973; Gittelman & Birch, 1967; Hingtgen & Bryson, 1973; Pasamanick & Knobloch, 1961; Ruttenberg, 1971). Pollack and Woerner (1966) reviewed five controlled studies and found a significant agreement for increased prenatal and pregnancy complications in psychotic children as compared with controls. Yet, Ornitz and Ritvo (1976) advised that such findings be viewed with caution because of the variability in criteria for the psychiatric diagnosis, in the selection of pre- and perinatal complications, in the inclusion or exclusion of gross neurological disorders, and in

the extent to which parental reports are relied upon. Regarding prematurity, several studies cited by Ornitz and Ritvo (1976) suggested that premature birth was not found to be significantly higher in autistic children, yet Hingtgen and Bryson (1973) found contradictory data.

NEUROPHYSIOLOGICAL FACTORS

Neurophysiological abnormalities have been investigated in the search for evidence of organic etiology in childhood schizophrenia. The areas of inquiry have included pre- and perinatal complications, neurological disorders, abnormal developmental patterns, perceptual disorders, motoric disturbances, intellectual impairment, and speech and language disorders. As reported below, a high incidence of various neurophysiological dysfunctions has been found in psychotic children, but no agreement exists regarding their relative etiological significance.

Neurological Disorders

The existence of a variety of hard and soft neurological signs in psychotic children has been widely recognized. In an early paper on childhood schizophrenia, Bender (1947) carefully described the disturbances of motor activity, spatial orientation, perceptual functioning, visual-motor patterning, and thought and language processes in schizophrenic children from which she inferred a neurological dysmaturation.

Fish (1976; et al., 1966) extended Bender's work and found that she could identify preschizophrenic children as early as one month of age on the basis of neurological abnormalities. Randomly selecting 16 newborns, Fish used standard tests and measurements to assess development, repeating them ten times from birth to 2 years of age, and then obtained independent psychiatric and psychological assessments of the children at ages 8 and 10. She found that those children diagnosed as schizophrenic on follow-up had early on evidenced a disorganized pattern of neurological maturation.

Comparing autistic with schizophrenic children, Fish stated that neurological abnormalities are present only in some cases of autism. Though Ornitz and Ritvo (1976) found that neurological examinations of most autistic children are unremarkable, they cited several studies which reported that 40 to 75% of autistic subjects showed soft signs including clumsiness, poor coordination and muscle tone, hyper- or hypokinesia, short attention span, and others.

While not all investigators agree, many studies reported by Laufer and Gair (1969), Miller (1975), and Hingtgen and Bryson (1973) found a high percentage of EEG abnormalities in psychotic children, though no single type of abnormality has been suggested. Sleep and dream patterns of normal and psychotic children have been compared for differences with both positive and negative findings reported. Ornitz and Ritvo (1976) found that autistic children have a normal sleep cycle with normal amounts of rapid eye movement (REM) sleep but that the REM activity in REM sleep is reduced. The fact that

normal infants also manifest a lower amount of REM activity suggests a possible maturational lag in autistic children. Evoked responses in autistic children during wakeful and sleep states both have been investigated and discussed by Ornitz and Ritvo (1976) and Hingtgen and Bryson (1973).

Laufer and Gair (1969) reported studies which provide evidence for the existence of convulsive disorders in psychotic children. Temporal lobe foci and cortical or subcortical thalamic foci were found, while some authors suggested the limbic system as the likely locus of seizure disorders in autistic children. Ornitz and Ritvo (1976) noted that grand mal and psychomotor seizures have been observed in autistic children and suggested that seizure disorders are likely to become clinically manifest as autistic children get older.

Abnormal Developmental Patterns

A theory of abnormal central nervous system development in childhood schizophrenia has been proposed by Bender (1942, 1947, 1949, 1953, 1956). In contrast with more specific hypotheses of underlying pathogenic mechanisms, Bender postulated a genetically determined, diffuse encephalopathy which interferes with the integration and patterning of behavior in every area of CNS functioning. A maturational lag at the embryonic level results in disruptions of the vasovegetative, homeostatic, and growth patterns thereby impairing the development of motility, perception, thought, language, and symbol formation. The stability of ego boundaries, body image, and identity formation is likewise compromised (Bender, 1947). By introducing the concept of

embryonic "plasticity" to her earlier formulations, Bender (1949) provided an aid to understanding the specific patterns of disturbance in different areas of function and the endless variations in clinical pictures of schizophrenic children. According to Bender, the neurotic defense mechanisms discussed above reflect the organism's attempts to counter the disorganizing effect of anxiety which is a secondary reaction to the experience of an internal, physiological disequilibrium.

As already noted, Fish et al. (1966) defined vulnerability to schizophrenia in terms of "uneven neurological development, characterized by unusual combinations of retardation and precocity." The "vulnerable" infants showed "pandepvelopmental retardation" in physical growth, gross motor-development and visual-motor development. Before age 2, they evidenced gross scatter in visual-motor tasks, failure in bi-manual integration, and delays in visual attention, reaching, manipulation and imitation of movement. These infants were abnormally quiet and lethargic, evidencing flacid muscle tone, little or no crying, and a lack of energy, drive, attentiveness, and emotional responsiveness. Fish (1976) also drew attention to marked fluctuations in rate of development with successive acceleration and retardation, to the temporary loss of an ability, and to the reversal of particular developmental sequences. Regarding accelerated development, Cain (1969) described the special "isolated" abilities found in psychotic children.

Perceptual Disorders

Evidence of perceptual disturbances. Impaired perceptual functioning in psychotic children has been widely reported, though much controversy exists as to the specific nature of the perceptual impairment. Goldfarb (1956) found an altered hierarchy of receptor preferences in schizophrenic children that suggests a preference for the proximal or contact receptors of touch, smell and taste over the distal receptors of hearing and seeing. Significantly, however, it has been found that schizophrenic children exclude auditory input in the form of speech but have unimpaired auditory processing for pure tones (Hoberman & Goldfarb, 1963). Offering an explanation for the higher speech threshold, deHirsch (1967) suggested that because of the fragmented nature of the schizophrenic child's experience, he lacks the pre-existing framework needed for meaningfully integrating incoming information. Hingtgen and Bryson (1973) cited research which disputes Goldfarb's theory of visual and auditory avoidance or inattention. Studies comparing just the distal modalities themselves have suggested a preference for the visual over the auditory modality and have been reported by Ornitz (1974). Investigating other areas of sensory functioning, Goldfarb (1958) found a diminished range of pleasure and deviant reactions to pain in schizophrenic children.

Investigations of various perceptual skills in psychotic children summarized by Hingtgen and Bryson (1973) found auditory and visual discrimination to be poor but visual acuity within normal limits. Studies of cross-modal information processing revealed deficits in visual-to-

tactile and auditory-to-visual transfer. Regarding auditory-to-vocal intermodal processing, it has been found that autistic children can repeat words as accurately as normals but cannot utilize the words meaningfully. While psychotic children were found to have higher performance than verbal I.Q. scores, Hingtgen and Bryson suggested that their visual-motor skills are not better than average and proposed that specific functions employed in visual-motor tasks be evaluated separately. Following that line of investigation Frith and Hermelin (1969) found that normal children make most efficient use of visual input while autistic children make most efficient use of kinesthetic and motoric cues.

Pathogenic mechanisms. Varying hypotheses of the pathogenic mechanism underlying sensory and sensori-motor integration deficits in psychotic children have been proposed. Ornitz and Ritvo (1968) suggested that a breakdown in the homeostatic regulation of sensory input leads to a condition of "perceptual inconstancy" in autistic children. This failure of regulation accounts for their difficulty modulating sensory input, distinguishing self from other, and imitating behavior. Variable responsiveness to stimulation can lead to insufficient or excessive inhibition of sensory input which then produces alternating states of hyper- and hyporesponsivity (Ornitz & Ritvo, 1968). A closely related theory has been put forth by Bergman and Escalona (1949) who found that very deviant children manifest unusual sensitivities attributable to a defective stimulus barrier which offers either insufficient or excessive protection. The universality of the

need for tactile stimulation has been recognized by several authors who suggested that a deficit in tactile processing could derive from a constitutional factor or from inadequate or excessive stimulation of the infant by the mother (Laufer & Gair, 1969).

Several authors cited by Rutter (1969) have recognized deficits in the integration of sensory stimuli including sights, sounds, and smells. Rutter (1969) noted that the deficit most emphasized in the literature is the lack of responsivity to sounds though disagreement exists between functional and organic explanations of the deficit. Rutter maintained that all symptomatic manifestations of autism are explainable in terms of organically-based cognitive and perceptual deficits. He postulated that the primary causal defect in autism is a deficit in the comprehension of sounds. This language or coding problem is similar to other developmental disorders of language with comprehension deficits, such as developmental receptive aphasia and congenital auditory imperception.

Birch and Hertzog (1967) hypothesize that the fundamental pathogenic mechanism in childhood schizophrenia may be an impairment in the processing of intermodal perceptual information. DeMeyer et al. (1972) also offered evidence for cross-modal deficiencies but stressed that the specific deficiency may vary from child to child.

Innate defects in arousal mechanisms have been thought to interfere with information processing in psychotic children. Rimland (1964) hypothesized that, in infantile autism, oxygen damage to the reticular activating system (RAS) leads to inadequate arousal to incoming stim-

uli. As a result, the association of sensory input to previous brain content is inhibited. Because the autistic child cannot relate new stimuli to remembered experience, he cannot integrate diverse sensations, comprehend relationships, nor derive meaning from experience. In contrast to Rimland's theory of an underactive RAS, C. Hutt et al. (1964) and S. J. Hutt et al. (1965) proposed that an overactive RAS creates a state of maximal arousal. In this context, gaze avoidance and inattention to sensory stimuli are seen as reactive efforts intended to reduce sensory overloading. The endogenous stimulation of repetitive, stereotypic behavior is also intended to block out exogenous sensory input.

Motoric Disturbances

Disturbances of motility as well as superior motor abilities both have been found in schizophrenic and autistic children. Abnormal motility was included by Creak (1961, 1963) as one of the nine diagnostic criteria of childhood psychosis or schizophrenia. Bender (1947) regarded motility as one of many functions affected by CNS pathology in childhood schizophrenia. In her study, parental reports indicated unevenness in the child's motor development and anxiety about acquiring new motor patterns which would allow him greater independence from the mother. Direct observation revealed that early, primitive reflex patterns sometimes persisted beyond their appropriate developmental stage and were utilized in play or in the expression of anxiety. Among the disturbances observed were motoric awkwardness, poor limb control, rotating and whirling motor play, and postural reflexes which were

specific to childhood schizophrenia. Preoccupying fears of losing limbs and uncertainty about physical and psychological identity seemed to derive from the schizophrenic child's inability to locate his body boundaries, his center of gravity and his relation to time and space. Bender noticed he would mold into the lap or arms of an adult or lean on him and fall to the ground if the adult withdrew his support. She hypothesized that the schizophrenic child depended on someone else's body in order to find a center of gravity to use in controlling his disorganized impulses and ego boundaries. Paradoxically, he appeared motorically awkward and disorganized when required to conform with learned, habitual patterns for events going on around him. Independently, however, he could perform graceful, rhythmic, dance-like movements, in varied tempos, for lengthy stretches of time.

Studying autistic children, Rimland (1964) noted outstanding motor ability reflected in good finger dexterity, in good gross coordination, and in graceful, agile movements. He viewed disturbances of coordination, locomotion and balance as characteristic of schizophrenic rather than autistic children. In disagreement, however, Ornitz (1969) identified disturbed motoric patterns including hypo- and hypermotility as one of five symptom clusters diagnostic of early infantile autism. He found that peculiar or bizarre mannerisms, appearance and motoric patterns were intermittently or continuously present. Among the deviations he observed were headbanging, headrolling, body rocking and swaying, sudden lunging and darting, spinning and flicking objects, and episodes of immobility and posturing which might

interrupt these behavioral patterns (Ornitz, 1974; & Ritvo, 1976). They discovered that the most typical disturbance, flapping and oscillating of hands and arms, was unresponsive to environmental factors and was similar in rate and frequency across groups of patients. They therefore considered it a manifestation of a CNS dysfunction. In keeping with their theory of faulty modulation of sensory input, Ornitz (1974) suggested that the motoric deviations may derive from their dependence on the child's response to kinesthetic feedback and sensory perceptions.

Intellectual Impairment

As alluded to above, differing points of view exist regarding the nature of intellectual functioning in psychotic children. Two of the major controversies concern the characteristic I.Q. level of psychotic children and the validity and reliability of I.Q. testing as an assessment technique when used with psychotic children.

Numerous authors have argued that the affective disturbance of autistic children masks their normal or superior I.Q. potential and prevents them from utilizing it (Bettelheim, 1967; Eisenberg & Kanner, 1956; Kanner & Lesser, 1958; Rimland, 1964; Rutter, 1971). In support of such a position, Menolascino (1966) stressed the effects of psychological factors on intellectual functioning and demonstrated the cognitive impairment which can result from pathological emotional, social or physical factors.

Some researchers have argued that the relatively normal physical condition and perceptual and gross motor skills of psychotic children

indicate normal or above normal intelligence. Yet studies reviewed by Hingtgen and Bryson (1973) suggested that evidence of severe deficits in social, intellectual and perceptual functioning is accumulating as more psychotic children are being tested. Further they suggested that, despite the higher levels of intellectual functioning included within wide ranges of I.Q. scores reported, the majority of psychotic children score at low levels. When the proportions of psychotic children within small intervals of I.Q. levels were investigated by Gittelman and Birch (1967), few children were found to score above 90.

Rutter (1969) also disputed the position that all autistic children are of normal intelligence. Rutter et al. (1967) and Rutter and Lockyer (1967) found that over one-half of the 63 autistic children they tested scored in the mentally subnormal range. Further, I.Q. did not vary with features such as disturbed behavior and social withdrawal and therefore could not be attributed to clinical factors. On the other hand, subnormal intelligence could not account for autism because one-third to one-quarter of autistic children have normal I.Q.'s and autistic children with low and high I.Q.'s are behaviorally similar. Significantly, Rutter discovered that I.Q. findings depended on which functions were examined, i.e., that autistic children did above average on tests of visual-motor skill and below average on verbal tasks including those requiring abstract and logical thinking. Thus, he concluded that low level intellectual attainment in autistic children was related to specific deficits in language

rather than to global deficits of intellect.

In a review of 13 studies on childhood psychosis, Pollack (1966) concluded that the low I.Q. scores obtained by the majority of psychotic children reflects brain dysfunction. Ornitz and Ritvo (1976) also viewed the intellectual deficits of autistic children as comparable to the deficits of primary retardation rather than as secondary by-products of a psychological disturbance.

Regarding the validity of intelligence testing with psychotic children, one point of view is that their obtained I.Q. scores do not reflect their actual abilities because psychotic children are untestable. Yet, Hingtgen and Bryson (1973) did not find support for this position. They suggested that the performance of young psychotic children remains low even with assessment techniques which do not require their direct cooperation and that psychotic children become more responsive and testable when low level items are used. Recognizing the extreme scatter between the verbal and visual-motor subtest scores of autistic children, Hingtgen and Bryson agreed with Rutter and Lockyer that the intratest scatter reflects language impairment and does not invalidate the overall I.Q. score.

Investigations of the stability of I.Q. scores in psychotic children have been summarized by Miller (1975) and Hingtgen and Bryson (1973). Lockyer and Rutter (1969) maintained that I.Q. testing is feasible, valid, stable over time, and predictive of final I.Q. and future functioning. They found that stability of I.Q. scores was not affected by variables such as age, sex, presence or absence of organ-

icity, or presence or absence of a period of normal development. In contrast, Goldfarb et al. (1969) found I.Q. stable only in schizophrenic children with organic impairment and I.Q.'s below 60. In addition, over a 3-year period, children with I.Q.'s above 60 (particularly if not organically impaired) did show significant increases in I.Q. which were related to clinical improvement.

Disturbances of Speech and Language

Deviations in speech and language development have been widely recognized as a common feature of childhood psychosis (Bartak & Rutter, 1976; Bender, 1947; Creak, 1961, 1963; deHirsch, 1967; Fish et al., 1968; Goldfarb, 1956; Kanner, 1943, 1949; Kanner & Lesser, 1958; Ornitz, 1969; Rutter, 1969; Shapiro, 1975; Weiland & Legg, 1964). Several authors have reviewed the studies which describe, assess and attempt to account for these speech and language disorders (Hingtgen & Bryson, 1973; Laufer & Gair, 1969; Miller, 1975; Ornitz & Ritvo, 1976).

Impaired language has been included in many classifications of diagnostic criteria (Bartak & Rutter, 1976; Creak, 1963; Kanner & Lesser, 1958; Ornitz, 1969; Rutter, 1971), and has been considered an important prognostic factor (Despert & Sherwin, 1958; Eisenberg, 1956; Eisenberg & Kanner, 1956; Fish et al., 1968; Kanner & Lesser, 1958; Rutter, 1969). Numerous descriptions of various types of speech and language disturbances can be found. Firstly, estimates of the incidence of mutism, the most profound language disturbance in psychotic children, have ranged from 28 to 61% as compared with

estimates of normal speech which range only from 5 to 43% (Hingtgen & Bryson, 1973). Secondly, delayed or arrested language development and even loss of language functions have been commonly reported (Creak, 1963; Kanner, 1943; Ornitz, 1969). Thirdly, the characteristic lack of spontaneity, variation, affectivity and communicative purpose in the speech of autistic children have been noted and seen as consistent with the avoidance of human contact (Creak, 1963; Goldfarb, 1956; Kanner, 1943; Ornitz, 1969). The verbal output of psychotic children is limited, their questions and informative statements infrequent (Hingtgen & Bryson, 1973), and gestural reinforcement lacking (Ornitz, 1969). The most common finding has been immediate or delayed echolalia. Rutter (1965) reported that 75% of the speaking children he studied (approximately one-half of his 63 subjects had some form of speech) exhibited echolalia. Thus, even in the child who does not communicate, language may be stored and reproduced later "in parrot-like repetitions of previously heard word combinations" (Kanner & Lesser, 1958). The rote incorporation, storage and reproduction of whole "chunks" of language then results in peculiar grammar such as the misuse of personal pronouns which Rutter (1965) found in 25% of his speaking subjects. Further, neologisms and deviations in articulation, pitch, stress, rhythms, inflection, modulation, tonality, and coordination of speaking and breathing contribute to the unmistakable peculiarity of speech in psychotic children (Hingtgen & Bryson, 1973; Kanner, 1949; Ornitz, 1969).

While Rutter (1969, 1971) related language deficits to a primary

biological dysfunction in childhood psychosis, others have considered them a secondary byproduct of environmental or psychological factors (deHirsch, 1967; Goldfarb et al., 1956, 1959). Rutter's evidence for his hypothesis of a language coding and comprehension deficit was, first, that language deficits are almost invariably present and are often the earliest symptom noted. Second, the deficits and scatter of cognitive abilities in autism are similar to those in developmental disorders of language. And, third, verbal recall is often excellent while comprehension remains grossly lacking. According to Rutter, therefore, the disturbance in affective contact in autism may be explained in terms of the basic impairment in language.

DeHirsch (1967) likewise recognized similarities between the language of aphasoid and psychotic children but also recognized that psychogenically-based language disorders exist in schizophrenic children. Acknowledging the complexity of etiological considerations, she proposed a continuum of language disorders in which organic and nonorganic factors both play a role. In addition to physiological variables and psychodynamic factors deriving from pathological mother-child relationships, Goldfarb et al. (1956, 1959) cited a third possible factor, namely, the presence of an actual speech impairment in the mother who then provides the child with a poor model for imitation.

Regardless of etiology, impairments in language affect the development of other ego functions such as mastery, impulse control and the capacity for delay (deHirsch, 1967; Shapiro, 1975). Shapiro

(1975) and Weiland and Legg (1964) therefore proposed that deviations in linguistic development be used as a measure of overall ego integrity and devised a system for rating language development and grammatical usage.

Theories Concerning Environmental Factors

PSYCHODYNAMIC CAUSATION

The second major group of etiological theories rejects the assumption of an inherited, constitutional deficit, proposing instead that childhood psychoses derive from the pathogenic influence of postnatal, environmental factors on personality development. The majority of these theories present a psychodynamic point of view, stressing the pathological dynamics of the parent-child relationship as it has been influenced by parental psychopathology.

Boatman and Szurek (1960; Szurek, 1956) proposed an entirely psychogenic theory without, however, delineating the exact nature of the parental pathology. Their basic hypothesis is that "the psychotic disorder is the result in the form of conflict and its compromise solution of the postnatal experience of each particular child early in life in interaction with significant adults who were themselves in conflict" (Boatman & Szurek, 1960, p. 390). To examine this hypothesis, the investigators simultaneously treated psychotic children and their parents psychotherapeutically and found that the children seemed to identify with and incorporate the conflicts and attitudes of their parents who manifested longstanding neurotic disorders. They also found that the

onset and exacerbations of the children's disorders coincided with stressful events in the lives of the parents. The dynamic process suggested is that the parents react to the child's early impulses in a conflictual way, leading to the repression and distortion of those impulses by fusion with anxiety and rage. Through an escalating process, increased pressure for impulse discharge leads to increased parental tension and intensified anxiety and repressive efforts. The likelihood of revengeful and self-destructive behavior is thereby enhanced and there ensues "a severe restriction and distortion of 'ego' development or executive capacity. That is, there is not merely failure but also negativistically anxious refusal to learn many skills--refusal which perpetuates the helplessness, the so-called 'dependent' or tenuous 'ego strength'" (Boatman & Szurek, 1960, p. 432).

Other investigators have ascribed more specific pathology to the parents and the parent-child relationship. As discussed by Rutter (1971), Fraknoi (1967) suggested that the causal factor in autism is the mother's overidentification with the child which is based on a disturbed relationship with her own mother. Lordi and Silverberg (1964) postulated a failure in the mother-child relationship which appears to be an extension of and a reaction to early narcissistic injury in the mother. They characterized the typical father as a dependent personality. Kaufman et al. (1960) classified both the schizophrenic children they studied and their parents as pseudoneurotic, pseudosomatic, pseudodelinquent and overtly psychotic. The schizophrenic child's illness was found to be essential to the emotional life and psychic balance of the parent with the fear of annihilation as the core anxiety of the schizophrenic illness.

Bettelheim (1956, 1967) proposed that autism is a response to the parent(s)' malevolent conscious or unconscious reaction to the child. Arguing against organic theories, Bettelheim maintained that close examination of parental reports reveals that autism is not present at birth but can be triggered in the first days or weeks of life by maternal behavior which does not adequately meet the needs of the infant. Autism is the child's response to events which cause him to feel that he lives in an "extreme situation" which could jeopardize his life forever. He feels totally helpless in the face of insensitive, incomprehensible and whimsical forces and has no personal relationships to offer him relief. Whereas Bender conceptualized autism as the child's defense against anxiety which is secondary to an organic impairment, Bettelheim believed the anxiety derives from the child's viewing his situation as potentially destructive. Motivated to maximize feelings of safety, the child fears that any action could prove fatal and so he remains impassive. He uses or misuses his sensory functioning defensively to block out frightening, internal and external stimuli. Other interpretations of autism as a withdrawal from a hostile and threatening world, similar to Bettelheim's, have been offered and cited by Hingtgen and Bryson (1973).

Among the specific psychopathogenic mechanisms proposed is psychopathology which is not directly aimed at the child but which, nonetheless, prevents the mother or mothering person from responding adequately to him. Miller (1975) cited numerous authors who implicate overt or covert maternal depression in their formulations of childhood

psychosis. While he supported the validity of clinical observations of maternal depression, Miller questioned its etiological significance in view of the fact that "mothers of infants with other impairments... also manifest depression" (Miller, 1975, p. 372).

The etiological significance of stimulus deprivation and noxious overstimulation has been recognized. As cited by Rutter (1971), Zaslav (1967) viewed disorders in perception as causal in autism but attributed them to inadequate sensori-motor, tactile and kinesthetic handling in infancy. He argued that this stimulation deprivation prevents adequate mobilization and externalization of affect and the establishment of basic trust. The mother's active avoidance of eye contact with the infant has also been suggested as a possible psychopathogenic factor (Fraknoi & Rutter, 1971). Miller (1975) drew attention to studies of anticipatory behavior and of infant sleep-wake patterns in the first days and weeks of life, and commented that "such work suggests very early and very subtle organization of newborn behavior around environmental events and raises the possibility that defects that are detected in later months and held to be evidence of 'constitutional defects' or 'organicity' may in fact be the result of early mothering experiences" (Miller, 1975, p. 372).

BEHAVIORAL THEORIES

Contrasting with psychodynamic views of environmental etiology, Ferster (1961, 1966) presents a purely behavioral explanation of childhood psychosis. Using the terminology of operant conditioning, he suggests that the failure of parental reinforcement results in the absence

of social behavior in the child. Atavisms are often reinforced by parents because of their aversive effects. Repetitive, self-stimulating behaviors are continually reinforced through their immediate effects on both the environment and the child's body.

Dualistic Theories

Recognizing the significance and infinite variations of both constitutional endowment and psychosocial experience, some investigators have developed a multifactorial approach which more adequately accounts for such complexity and heterogeneity than theories of pure biological or environmental causation. The "dualistic" models propose that organic or environmental factors or some combination of both can result in a psychotic disorder. Goldfarb (1964; et al., 1959) assessed cerebral dysfunction in schizophrenic children and psychosocial confidence in their parents and found he could distinguish between an "organic" and a "nonorganic" group of children. A higher prevalence of "soft" neurological signs was found in the "organic" group while a higher prevalence of environmental inadequacy and "parental perplexity" was found in the "nonorganic" group. In the latter group, parenting was characterized by extreme uncertainty and passivity, and the absence of spontaneity and empathy confused rather than enhanced the child's attempts to make sense of his environment. Goldfarb concluded that neurological impairment and/or adverse environmental influences could lead to the cognitive and emotional deficits of schizophrenic children. With his theory of "multiple causation," he posited an

etiological continuum with disturbances caused by primarily intrinsic factors on one end, disturbances caused by primarily extrinsic factors on the other end, and a wide spectrum of admixtures in between.

Studying children with histories and clinical indices of autistic behavior, Menolascino (1965) also found a spectrum of etiological variables reflecting the operation of "multifactorial processes." Maintaining that only infrequently could a unitary etiological diagnosis amply represent the clinical picture, Menolascino proposed an etiological spectrum for autistic children, similar to Goldfarb's for schizophrenic children, allowing for "pure" organic, "pure" environmental, and mixed etiologies. Quoting Sarvis and Garcia (1961), Menolascino proposed that "autistic behavioral patterns and reactions--occurring at particularly vulnerable developmental stages--may seemingly be set in process during this vulnerable period by any or all of a series of etiological gradients or vectors in any combination" (Menolascino, 1965, p. 210).

Theories of Interaction

Sharing the dualists' respect for multiple etiological variables, numerous authors have viewed childhood psychoses as the endproduct of complex interactions between innate and environmental factors. Even Kanner (1943, 1949), who initially viewed autism as an "inborn disturbance of affective contact," later attributed a strong pathogenic influence to the constellation of parental characteristics that he had earlier found, namely, a mechanized, impersonal, and detached style of relating to the child and a lack of genuine emotional warmth and

demonstrativeness (Kanner, 1943, 1949). Disavowing a rigid "organic-functional" distinction, he concluded that the autistic child has an innate disability in relating to people which is adversely influenced by the parents' rearing of the child (Eisenberg & Kanner, 1956; Kanner, 1965).

Acknowledging the difficulty of making an "either-or" decision regarding the etiology of autism, Rutter (1971) posited a continuum with an almost infinite number of possible permutations and combinations of intrinsic and extrinsic factors. The presence and severity of the pathology is determined by the interaction between the degree of constitutional deficit and of environmental stress. Classifying two types of predisposing factors, Rutter first acknowledged a rare, specific inherent defect of "primary autism" which renders the infant unable to utilize adequate mothering. Second, he noted a more general, varied congenital vulnerability, due to intrauterine insult or birth trauma, which produces brain dysfunction. Classifying two types of environmental stresses central in "secondary autism," he first cited pressures, unpredictability and incompatibility in the symbiotic relationship which are handled with autistic withdrawal and, second, recognized the pathogenicity of stimulus deprivation or noxious overstimulation. Regardless of the relative degree of constitutional versus environmental contributions, he viewed autism as an arrest at or regression to a preoral level of relationship, ego and psychosexual functioning wherein the self is taken as the object. The autistic mechanisms--withdrawal and avoidance of contact--constitute

a defense against and an adaptation to maternal behavior perceived as noxious, inadequate or overwhelming.

The majority of interactional theories of childhood psychosis, including those of Mahler, Rank, Reiser, and Weiland, acknowledge an unspecified vulnerability in the child but focus closer attention on the pathological mother-child relationship. Among these investigators, only Rank (1949, 1955; & Macnaughton, 1950) delineated a specific environmental constellation. The sine qua non of her clinical description of children with "atypical development" was a "lack of integration and uniformity in ego development" (Rank, 1955). Arrested development together with emerging single, autonomous functions make for the coexistence of disparate levels of achievement in cognitive and emotional functioning. While Rank maintained that predisposing hereditary and biological factors and postnatal psychological experiences both play a part in the emergence of the disturbance, her main hypothesis was that the child has suffered "gross emotional deprivation" and has isolated himself from an unsatisfactory environment in self-defense (Rank, 1955). The lack of a proper emotional climate prevents the introjection of a stable maternal image which then fragments ego development, rendering a fragile ego incapable of modulating drives, differentiating self from nonself, and developing object relations. Emphasizing the profound disturbance in the parent-child relationship, Rank (1949, 1955) reported specific findings of both maternal and paternal psychopathology. She divided the mothers into two groups--those with diagnosed psychotic (manic-depressive or schizophrenic)

disorders and those with immature, narcissistic personalities, incapable of mature relationships. Though many of the mothers outwardly appeared well-adjusted, in contact with the outside world, and self-assured, inwardly they tended toward detachment and isolation. Rank characterized the fathers of "atypical" children as passive, ineffectual, and emotionally impoverished. In addition to appreciating the effects of parental relationships on the child, Rank attributed pathogenic influence to traumatic life events, such as a physical illness, the birth of a sibling, and losses and separations, all of which could upset the precarious balance of a weak ego.

Reiser (1963) adopted and further investigated Rank's notions of "ego fragmentation" and parental pathogenicity in "atypical development." Through his own work, Reiser (1966) became less impressed with maternal hostility and rejection and attributed greater significance to prolonged, subclinical postpartum depression which rendered the mother unable to provide adequate mothering. In addition, he addressed the predisposing, biological matrices which Rank briefly noted, namely, the innate potentials from which the ego develops and the physiological precursors of the ego found in reflex activity, autonomic reactivity, and respiratory, cardiovascular and gastrointestinal functioning.

Mahler's contributions to theories of early object relations and ego development, in general, and to theories of infantile psy-

chosis, in particular, have been of paramount significance.¹ She defined the core problem of infantile psychosis as the distortion or absence of the symbiotic relationship. This deviation derives from the child's inability to utilize the mother and results in his failure to achieve a sense of individual identity. In her own words, the critical feature of infantile psychosis is

A deficiency or defect in the child's utilization of the mothering partner during the symbiotic phase, and his subsequent inability to internalize the representation of the mothering object for polarization (of self and object). Without this, differentiation of the self from symbiotic fusion and confusion with the part object does not occur. In short, faulty or absent individuation lies at the core of infantile psychosis (Mahler, 1968a, p. 32).

This failure in individuation results in "gross impairment of the integrating, synthesizing and organizing functions of the ego" (Mahler & Furer, 1972) and in the incapacity to attain a solid sense of reality (Mahler, 1968a).

In Mahler's view, identity formation presupposes both the structuralization of the ego and the neutralization of drives. These processes, in turn, rest on two prerequisites. First, the enteroceptive and proprioceptive stimuli impinging on the infant must not be so overwhelming as to prevent structuralization, and, second, the symbiotic partner (mother) must act as a buffer against internal and external stimuli, organize them for the infant, and orient him to his

¹ Mahler's theory of early development, resting on the concepts of "symbiosis" and "separation-individuation," will be discussed in Chapter III. While her theory of infantile psychosis derives directly from these concepts, discussing them at this point would entail a lengthy digression.

inner versus outer world.

Mahler's etiological view of a predisposing deficiency follows from these two prerequisites. She stressed that an inborn and probably hereditary--or else acquired in the first days or weeks of life --"defective tension-regulating apparatus" (Mahler, 1952) heightens oversensitivity and the potential for anxiety and that experiences of pain and displeasure thereby leave the infant unable to use the mother (Mahler & Elkisch, 1953). Disputing the theory of the "schizophrenogenic mother," she proposed instead a "complementary series" of causal factors (Mahler, 1968a). Psychosis can develop in a constitutionally sturdy infant if excessive trauma occurs in the vulnerable autistic and symbiotic phases and the mother then loses her catalyzing, buffering, and polarizing capacity. Alternately, in constitutionally predisposed, oversensitive and vulnerable infants, even "the most quantitatively or qualitatively efficient mothering" is insufficient to counteract the innate defect (Mahler, 1952). Maternal invasiveness and overprotection can interact with either set of variables and increase the psychotic potential.

Subsequent to the development of distorted relationships vis-a-vis the self and object, additional problems are created as the maturational thrusts of toddlerhood and the phallic phase proceed while earlier development lags (Mahler, 1958). Further, the infant who, for either of the reasons mentioned above, cannot use the mother in the normal way substitutes psychotic defensive and restitutive "maintenance mechanisms," mainly those of the "autistic" and "symbiotic"

syndromes, to survive (Mahler, 1968a). Both types of psychoses in children "can be understood as pathological distortions of normal phases of development of the ego and its functions within the early mother-child relationship" (Mahler, 1968a, p. 66).

According to Mahler (1952, 1968a), the autistic syndrome develops from the child's inability to perceive and use the mother for inner or outer orientation and from a pervasive inability to discriminate animate from inanimate objects. Because the mother as a "living beacon of orientation in the world of reality" is nonexistent as such, the child's undifferentiated and rudimentary ego cannot cope with the complexities of internal and external stimulation. He experiences outer reality as an intolerable source of irritation. Intrapsychically, therefore, he attempts to deanimate and dedifferentiate inner and outer reality, fixating at or regressing to the complete nondifferentiation of the earliest period of extrauterine life, the "normal autistic phase." He attempts to shut out and hallucinate away sensory impingements, particularly those of the living world which demand emotional response. Behaviorally, Mahler's autistic child, like Kanner's, encloses himself in a "small, utterly restricted world of his own," shutting out the human object world and showing none of the landmarks of social development. If he is not mute, he uses language not for functional communication but rather to serve as a "quasi-signal" as in infancy. He is exclusively attached to and preoccupied with inanimate objects and insists on the preservation of sameness. His predominantly pathological autoaggressive rather than

autoerotic habits serve to strengthen his deficient awareness of body-boundaries and his sense of being alive and whole.

In contrast with the autistic child, the symbiotic psychotic child has developed beyond the phase of "normal autism" to the symbiotic phase and often shows the relatively normal beginnings of differentiation necessary for the subsequent separation-individuation process (Mahler, 1968a). In the first year, he rarely manifests conspicuously disturbed behavior, aside from the typical heightened sensitivities of a low stimulus barrier which make for a precarious psychobiological balance and prevent the mother from effectively buffering against overstimulation. However, at the point of development where maturational growth of the ego apparatus (for example, locomotion) would effect beginning separation from the mother, the illusion of symbiotic omnipotence is threatened and separation anxiety overwhelms the brittle ego of such vulnerable children. "Abysmal affective panic" reactions occur of the intensity and diffuseness reminiscent of the organismic distress of infancy. During the later psychosexual maturation of the phallic phase, additional emotional demands precipitate further ego fragmentation. Unevenness of ego development results in ego functions becoming vulnerable to trauma and even to minor frustrations. Intrapsychically, the symbiotic child defensively fixates or regresses to the symbiotic stage of the need-satisfying part object. The boundaries of the self and nonself are blurred and self-differentiation fails. The mental representation of the mother is fused with the self and participates in the child's

delusions of oneness and omnipotence, distorting reality testing. While maintaining delusional fusion against the fear of separation, the symbiotic child simultaneously fears reengulfment and dreads dissolution of the self in the dual mother-child unit which he cannot magically control. With defensive deanimation and dedifferentiation, he loses the faculty for discriminating animate from inanimate and withdraws emotional investment from the outer world. His own bodily feelings gain ascendancy and replace the living object world.

Unlike the withdrawal of autism, the symbiotic behavior reflects a complex and intensely ambivalent tie to the mother. Catastrophic panic reactions and temper tantrums are displayed in all cases. Manifestations of love and aggression are confused so that the child may crave body contact but also shrink back from opportunities for affection. Aggressive biting, kicking and squeezing may paradoxically express his desires to incorporate, possess, devour and unite with the mother (Mahler, 1952). He attempts to externalize his delusional omnipotent dual unit by expecting that his mother will respond to any signal that he gestures, vocalizes or merely thinks of. He uses "the maternal hand as a mechanical unindividuated extension of his own body" (Mahler, 1968a), assuming that his mother automatically and simultaneously thinks what he thinks.

In her later diagnostic thinking, Mahler (1952, 1968a) modified her original sharp distinction between the autistic and sym-

biotic syndromes. She concluded instead that "infantile psychosis be categorized in terms of the predominance of one or the other primitive psychotic defense organizations" (Mahler, 1968a, p. 76). In her clinical experience, she had found that many cases of infantile psychosis, clearly differentiated at early stages, later tended to overlap and present both autistic and symbiotic patterns, with progressions and regressions to both early stages of preobject relations. In autistic cases, mental representations of the mother were established later in "quasi-spontaneous development" but often remained concealed by predominantly autistic mechanisms. In symbiotic cases, secondary autistic mechanisms were superimposed on the symbiotic structures to ward off threatened regression into symbiosis and preserve the aspects of individual identity already attained.

The work of Weiland (1964, 1966) followed Mahler's description of the autistic and symbiotic syndromes. Consonant with her thinking, he viewed autism as deriving from a basic failure to associate the mother as external object with need-gratification. He considered symbiotic psychosis as a defense against excessive separation anxiety and panic wherein the child perpetuates clinging and finds no other sources of relief. Similar to Mahler, he attributed both disturbances to the failure to undergo--with appropriate timing, intensity and duration--those specific experiences which are prerequisites for forming object relations (Weiland, 1964; Weiland & Rudnik, 1961). Distortion of all ego development ensues. The processes involved in forming adequate object relations depend on complex interactions be-

tween the infant and the mother at each stage, with all subsequent stages dependent on the interactions of antecedent ones (Weiland, 1964). Thus, either CNS pathology in the child or inadequacies in the parental behavior could adversely affect those critical interactions (Weiland & Rudnik, 1961).

In contrast with the interactional theories discussed thus far are those which stress and elaborate on constitutional deviance rather than environmental influence. Kirk (1968) discussed unrecognized perceptual deficits in the child and the circular relationship between his learning handicaps and the parents' difficulties responding appropriately. Salk (1968) discussed children who are unusually sensitive to insufficient sensory stimuli, noting that a lack of compensation in the early days of life can result in irreversible damage.

Bergman and Escalona (1949), in detailed observational studies of these constitutional deficits, grouped children according to the modality of their special sensitivity, the intensity of their reactivity (abnormal thresholds), and the particular qualities of sensory experiences which elicited responsivity. The authors hypothesized a relationship between unusual sensory sensitivities and childhood psychosis, speculating that the infant who is insufficiently protected from stimuli--either because of a constitutionally defective (too thin) "stimulus-barrier" or because of maternal failure to provide protection--may resort to the premature development of an ego to provide protection. This vulnerable ego is likely to break down

under the impact of trauma and psychotic manifestations will then set in, precluding the formation of a mature, stable ego organization. Alternately, too thick a stimulus barrier or maternal overprotectiveness can lead to delayed ego functioning. Because there is an optimal time for the development of particular ego functions, either the precocious or delayed ego formation can adversely effect development.

In a later work, Escalona (1963) studied how basic organismic characteristics interact with environmental factors to produce behavioral trends. Comparing six-month old infants having high or low activity levels, she examined behavioral trends as they reflected the combined effects of particular innate predispositions and particular environmental input. She demonstrated that the "patterning of life experience" (i.e., what babies do, how, when, under what circumstances and in what form and intensity) reflects the interaction between intrinsic characteristics and built-in maturational sequences with environmental forces which together determine the course of development. More specifically, the "patterning of life experience" affects the central developmental transitions of the first year which include the evolving separation of self and nonself, the awareness of differential characteristics of the environment, the development of a strong tie to the mother, and the emerging capacity to behave adaptively.

Using abundant behavioral evidence, Escalona reconciled contradictory organic and environmental theories of infantile psychosis by stating that all psychotic children share "the lack or distortion of

a mutual relationship with a mothering person" (Escalona, 1963, p. 243). While some may lack a normally responsive mother, others with inborn deficits may not utilize the responsive mother they have.

Thus,

The controversy as to whether infantile autism is "due to" inadequate mothering or "due to" inborn deficit loses its significance. It is a result of a lack of experiences which may come about through extreme variations in either intrinsic or extrinsic determinants or both. But autistic psychosis in childhood is not directly caused by a maternal deficit or by a deficit in the child. It is caused by the absence of those vital experiences in early childhood which we regard as the necessary condition for ego synthesis (Escalona, 1963, p. 243).

Weill's unique contribution to the interactional point of view was her examination of the interplay between maturational variables and experience and their combined effects on ego development (Weill, 1978). Though Escalona (1963) mentioned maturational sequences, it was Weill who elaborated on their profound influence. Her thinking derived from Hartmann's (1939a, 1952) concept of the "autonomous ego functions" which are based on neurophysiological apparatuses and follow a "programmed, constitutionally predetermined time table...a blueprint of maturation" (Weill, 1978). While, at the outset, these autonomous functions are nonconflictual, they almost immediately interact with and influence ego functions proper (i.e., nonautonomous ego functions) and the environment. In continuous, cyclic interactions with experience, maturation stimulates experience and visa versa. Especially in toddlerhood "one can see in statu nascendi how neurophysiological givens, at first preverbal and then verbal, jell into psycho-

logical formations. More specifically, one can see how the child gradually and increasingly experience and enacts primitively engrammed patterns" (Weil, 1978, p. 464).

In illustrating her theory, Weil delineated the specific contributions of the autonomous functions of perception, motility and language to ego development (Weil, 1978), while pointing first to the "rudimentary integrating ability" already operative as an underlying, organizing principle in the neonate's physiological functioning. This integrative function influences the infant's capacity to organize his experience in all areas from birth onward. His perceptual functioning affects his experience of his body, his mother's ministrations and his assimilation of the environment, laying the foundation for processing and integrating abilities (or difficulties). Motility contributes to autonomy forecasting styles of adaptation. It serves important roles in the separation-individuation process, in the channelling of aggressive drive needs, and in neutralization. The significance of language functions for development is "momentous." It enriches fantasy, fosters causal thinking, abstraction and categorization, gives names to percepts, and expands consciousness, awareness and self-awareness. It allows for trial action, distance from immediate situations, delay and anticipation while strengthening drive control and modulation of affect. In numerous ways, it augments reality testing. Lastly, it furthers object relations and the attainment of object constancy. Most importantly, the development of all autonomous and related ego functions depends heavily on the

mother's emotional investment in the child.

While Weil's interactional theory pertains to both the normality and pathology, she also presented her conception of the infant or young child who may later be called "deviational," "ego-disturbed," "atypical" or schizophrenic. She maintained that "severe disturbances of ego development" evolve from a "complimental series of hereditary constitutional factors and environmentally damaging influences," with extreme constellations of parental handling "possible but rare" (Weil, 1953b). Like Mahler, she traced ego arrest back to an unsatisfactory symbiotic phase and the failure to establish object constancy (Weil, 1973). The resulting failure in ego integration and consolidation leads to defective reality testing, faulty defense, poor drive control, and impaired synthetic functioning (Weil, 1953b). Regarding hereditary factors, Weil found overt psychoses and "odd, immature, bizarre persons" in the children's backgrounds, often in the parents' siblings rather than in the parents themselves. As evidence of biological components, she described findings of deviant physiology, erratic patterning, deviant drive endowment, impulse disorders, unusual maturational sequencing (for example, in language and neuromuscular development), and overloads of tension from hypersensitivity, hypertonicity, or extremes of autoerotic and autoaggressive behavior (Weil, 1956). Further, she recognized that children with innate, neurological imbalances can give unusual and distorted feedback to parents thereby increasing the difficulty of parental tasks. Because such children require

more and steadier support than the average environment supplies, the parents may or may not be able to compensate for the existing vulnerability (Weil, 1973). The biological deviations in children with "severe ego disturbances" exceed the range of usual variations just as their behavioral traits exceed the number, intensity, and duration of similar transitory phenomena in early childhood (Weil, 1953a).

A MULTI-LEVEL APPROACH

Rutter (1970, 1971) has proposed a "Tri-Axial" classification for childhood psychiatric disorders which integrates clinical assessments along three separate diagnostic dimensions or "axes." The first and main axis is used to represent the clinical and descriptive aspects of the psychiatric disorder under consideration; the second axis indicates the level of intellectual functioning along a scale ranging from severely subnormal to normal; and the third designates etiological or associated factors of biological or environmental origin.

Applying the model to infantile autism, Rutter delineated four major descriptive criteria on the first axis, namely, onset before 30 months, autistic behaviors, delays in speech and language development and ritualistic or "compulsive" phenomena. Regarding the second axis, he ascribed a higher incidence of subnormal I.Q. to infantile autism than to any other condition aside from mental subnormality. And considering etiological variables for the third axis, he disputed the genetic, psychogenic and behavioral theories, as well

as the views of infantile autism as a function of defective arousal mechanisms and as a brain damage syndrome. He proposed, instead, that infantile autism is a response to language and perceptual deficits.

The "Tri-Axial" system of classification brings together the descriptive and etiological points of view. Its noteworthy contribution lies in its attempt to integrate these separate lines of investigation in order to synthesize a richer, more sophisticated approach to the problem of diagnosis.

CONTROVERSIES IN THE LITERATURE

Implicit in the literature reviewed thus far are several fundamental and disputed questions which highlight the problems of diagnosis in childhood psychosis. These controversial issues concern the relation of autism to childhood schizophrenia, of childhood psychosis to adult schizophrenia, of childhood psychosis to mental retardation, and of the "syndrome" to the "disease" model.

The Relationship Between Infantile Autism and Childhood

Schizophrenia

Many authors have concerned themselves with the general issue of the relationship between earlier and later pathological manifestations. Some have addressed themselves to the more specific question of whether infantile autism is a distinct entity or is related to later types of childhood psychosis. Kanner (1949, 1965), the first to describe the

syndrome of early infantile autism, believed it has an identity of its own with its own unique features. Rimland (1964) then gathered evidence to support the specificity of the syndrome Kanner defined and similarly distinguished it from childhood schizophrenia.

Rutter (1969, 1971) has been a strong proponent of the view that infantile autism constitutes a diagnostic category of its own and should not be classified with other childhood psychoses or developmental disorders. His arguments for distinguishing infantile autism from childhood schizophrenia, in particular, will be reviewed because each of his points is disputed by other reports in the literature.

First, Rutter maintained that the two peaks of onset of childhood psychosis, at ages 3 and 11, suggest a discontinuity between autism and childhood schizophrenia. He stated that onset between ages 3 and 6 is rare, is usually associated with organic processes, and is not related to childhood schizophrenia. Second, he argued that the courses of autism and childhood schizophrenia are different --that autism is not characterized by the remissions and relapses that occur in childhood schizophrenia or by its characteristic delusions and hallucinations which bear close resemblance to the symptoms of adult schizophrenia. Third, he stated that perinatal complications and epilepsy are more common in autism than in childhood schizophrenia wherein the associated epilepsy, unlike that of autism, is usually of the temporal lobe type. Fourth, he cited the genetic finding that autism is rare in the siblings and parents of autistic

children while schizophrenia is common in the immediate families of schizophrenic children. Fifth, he maintained that the parents of autistic children show above average intelligence and superior socioeconomic status in contrast with the parents of schizophrenic children who have the same background as the general population. Sixth, he found that subnormal I.Q. is more frequently associated with autism than with childhood schizophrenia and that the pattern typical of autism (low verbal and high visual-spatial performance) is not found in childhood schizophrenia. And lastly, he noted that the sex distribution in autism is a 4 to 1 preponderance of boys as compared with an equal sex ratio in schizophrenia.

Miller (1975) discussed Rutter's arguments at length. He noted Rutter's implication that only one syndrome of psychosis with onset under 3 exists, yet nonhomogeneous clinical descriptions of early onset in psychosis are prevalent in the literature. As already noted, Mahler (1968a) describes the autistic and symbiotic syndrome, both of which appear before age 3 (symbiotic psychosis can also become apparent at 4 or 5 years). Weiland (1964) and Tustin (1972) distinguished two categories that roughly correspond to Mahler's. DeMeyer et al. (1971) devised categories to distinguish between autism and childhood schizophrenia with onset before age 3. And Reiser (1963) found a large group of young psychotic children who appeared neither autistic nor symbiotic, suggesting even a third grouping of early onset psychosis.

According to Miller (1975), other claims made by Rutter which

argue for the discontinuity between infantile autism and childhood schizophrenia are similarly based on disputable findings. His statement about the infrequency of onset between 3 to 6 years, which would support discontinuity, is incompatible with Bomberg's statistical survey of 264 children of whom 10% had onset between 3 to 5 years and 23% had onset between 5 and 9 (Bomberg et al., 1973). Without, unfortunately, providing an age breakdown, Bender and Faretra (1973) described 50 children all with onset of autism before 5 years old and also reported on 9 children with onset of a symbiotic syndrome in the third and fourth year. Regarding Rutter's assertion that autistic children, unlike those with later onset, lack the symptoms resembling adult schizophrenia, follow-up studies have yielded significant evidence of children with infantile psychosis who later become adult schizophrenics. These studies will be cited below in the discussion of the relationship between childhood and adult schizophrenia. Research which casts doubt upon Rutter's finding of increased evidence of subnormal I.Q. in autism will also be addressed below in considering the relationship between mental retardation and childhood psychosis.

With the exception of the sex distribution he reports, the remainder of Rutter's points consist of highly controversial data on hereditary, predisposing and epidemiological factors. The debated issue of genetic factors in infantile autism and childhood schizophrenia has been explored above with an inconclusive outcome. To note just one additional relevant study, Bender and Faretra (1963)

found a relatively constant, "quite low" incidence of schizophrenia in families of psychotic children that was independent of age of onset. Considering the genetic variable, Miller (1975) noted a clinical difference between adult schizophrenics and grown autistic children, namely, that autistic children show little sex drive as adolescents and adults. Hence, a developmentally determined low rate of reproductivity, rather than a genetic factor, could account for Rutter's findings of low incidence of autism. The question of predisposing perinatal problems has also been discussed by this author and Rutter's finding of increased complications in autistic children is questionable in light of reports of equal incidence in nonschizophrenic children. Rutter's epidemiological argument of higher intelligence and socioeconomic status with autism has been upheld by Kanner (1943, 1949), Treffert (1970), and others noted by Miller (1975) but not confirmed by Bender and Faretra (1973) and others (also in Miller, 1975). Using parents of autistic children and matched controls, Ritvo et al. (1971) found no differences in occupation, education, family income or social class, and Allen et al. (1971) found no differences in "intellectuality" when controlling for socioeconomic factors. Bettelheim (1967) and Bomberg et al. (1973) both reasoned that parents of autistic children seem to be more intelligent and of a higher class because they are acquainted with the symptoms of autism and it is they who bring themselves to the attention of professionals.

Rutter's finding of a predominance of boys in childhood autism is universally noted (Miller, 1975). Nonetheless, Miller raised two

relevant considerations. First, he noted that

the incidence of psychosis in girls rises gradually with age and becomes roughly equal to that of boys by adolescence. The argument that early onset psychosis is discontinuous with "childhood schizophrenia" and adult schizophrenia and that "childhood" and adult schizophrenia are continuous with each other would predict a discontinuous, not a gradual shift in sex distribution (Miller, 1975, p. 365).

Second, Miller cited the well-known fact that "boys are more vulnerable to illness in general, show a higher incidence of learning disorders, and tend to be further from the mean intelligence than girls."

He argued that

Although constitutional factors may well account for this contrast, it seems possible that developmental and emotional issues revolving around sex difference or sex similarity between mother and infant may also play a role (Miller, 1975, pp. 365-366).

In the controversy over the relationship between autism and childhood schizophrenia, Eisenberg (1956) took a midway position. He used some arguments parallel to Rutter's to designate early infantile autism as a distinct clinical entity but then included it in the group of schizophrenias because it shares some of the general features of schizophrenic thought and language.

In contrast with Eisenberg, several authors more strongly disavowed the sharp distinction proposed by Kanner, Rimland, Rutter, and others. Based on his epidemiological data, Treffert (1970) found that the differences between infantile autism and later onset childhood psychosis were less compelling than the similarities and did not conclusively demonstrate that infantile autism is an entity distinctly

separate from childhood schizophrenia. Menolascino (1971) viewed all of childhood psychosis as one common syndrome, with clinical subgroups dependent on age and stage of development at onset, constitutional endowment, and interactions with parents. While Ornitz and Ritvo (1968) and Bender (1956) suggested differing organic etiologies, both proposed a "continuum" from early infantile autism to childhood schizophrenia that reflects one continuous disease process. Ornitz and Ritvo considered early infantile autism, "atypical development," symbiotic psychosis and certain cases of childhood schizophrenia as variant descriptive categories of a single pathological process. Bender applied the term "childhood schizophrenia" to a developmental progression from infancy to adulthood wherein each stage produces different manifestations of a unitary disease process.

The Relationship Between Childhood Psychosis and Adult Schizophrenia

The relationships between adult schizophrenia and autism, childhood schizophrenia and childhood psychosis in general have all been examined in the literature. The genetic studies discussed earlier shed light on these relationships. Rutter (1965) found equal familial incidence of schizophrenia in childhood and adult schizophrenics. Hanson and Gottesman (1976) found overlapping genetic factors in prepuberty psychosis and adult schizophrenia but did not, however, find sufficient evidence for implicating genetic factors in infantile autism.

Proponents of both the organic and interactional points of view have supported the above-mentioned model of a "continuum" between infantile, childhood and adult psychosis. Follow-up studies discussed by Miller (1975) have produced significant evidence to substantiate this conceptualization. From the organic point of view, Bender and Faretra (1973) hypothesized a maturational lag at the embryonic level and maintained that childhood schizophrenia always leads to adult schizophrenia despite the wide range of clinical pictures. Ornitz and Ritvo linked childhood and adult schizophrenia by demonstrating the same constitutional perceptual deficit in both (Ornitz, 1969) and by describing psychotic children who later developed thought disorder characteristic of adult schizophrenia (Ornitz & Ritvo, 1968).

From within an interactional framework, Reiser (1963) studied psychosis in infancy, concluding that when "it is unrecognized, untreated or otherwise unimproved (it) usually continues to manifest the symptoms of personality fragmentation in later years, which will elicit the diagnosis of childhood schizophrenia and, ultimately, one of the forms of adult schizophrenic reaction" (Reiser, 1963, p. 846). Weil (1953b) related anxiety manifestations and varied neurotic symptoms in childhood schizophrenia to Hoch's findings in adult schizophrenia and to his view that "the clinical picture of a panneurosis actually belongs in the realm of early schizophrenia" (p. 528). She concluded that her descriptions of severe nonneurotic ego development might be considered "early or subclinical schizophrenia." Both the organic and interactional conceptions of the continuum model rest on develop-

mental principles which were highlighted by Ekstein et al. (1958). He viewed psychosis in adults as a regression to primitive, archaic functioning that is due to acute panic and to a disintegration of achieved levels of development. He attributed psychosis in children to the developmental arrest or failure of ego processes and differentiation.

The Relationship Between Childhood Psychosis and Mental Retardation

Mental retardation is singled out for discussion from among the vast number of childhood disorders because it is the condition most readily confused with childhood psychosis in clinical examination (Creak, 1963).² Creak noted the descriptive similarities between autism and mental deficiency which lead to the difficulties in differential diagnosis. It is not unknown for children diagnosed as psychotic by one examiner to be later diagnosed mentally retarded by subsequent examiners of different orientations. Adding to the confusion is the fact that the two conditions can coexist and that both can be created or simulated by brain dysfunction (Laufer & Gair, 1969).

A range of different views on the relationship between childhood psychosis and mental retardation have been expressed. One view, not widely shared, classifies autism as a variety of mental subnor-

²See a relevant discussion in earlier section ("Intellectual Functioning") on the meaning and level of I.Q. findings.

mality (Van Krevelen, 1952). Creak (1961, 1963), who included mental retardation as one of nine diagnostic criteria for childhood psychosis, also adopted an unpopular position, namely, that the manifest retardation in childhood psychosis represents actual retardation despite the presence of high functioning in circumscribed areas. A more commonly upheld hypothesis is that the low intellectual functioning frequently found in psychotic children represents specific impairments rather than global deficits. Rutter (1969), for example, found low intellectual achievement in autistic children but argued on the basis of earlier findings³ that autism is not merely another variety of mental subnormality. Based on the patterning of I.Q. scores, he proposed, instead, that poor intellectual functioning reflected particular deficits in language. A final and widely held view (Bettelheim, 1967; Eisenberg & Kanner, 1956; Kanner & Lesser, 1958; Rimland, 1964) following from Kanner's early differentiation of autism from mental retardation (Kanner, 1943) is that autistic children have normal or even superior intellectual potential (as well as areas of exceptional skill) which is masked by their affective disturbance. Based on a similar line of reasoning, Rutter (1971) underscored the distinction between their retarded functional level and their high potential.

³See arguments in section on "Intellectual Functioning" (Rutter & Lockyer, 1967).

The Relationship Between the "Syndrome"
and "Disease" Models

The voluminous literature on the various types of psychoses in children implicitly suggests a conceptual distinction between child psychosis as a "syndrome" and child psychosis as a "disease." While some theories derive primarily from one or the other model, others rest on both to varying degrees.

The concept of a "syndrome" applied to childhood psychoses implies that such disturbances can be identified and diagnosed on the basis of a finite number of descriptive criteria. These, by definition, derive from a "topographical" view of the child, i.e., from the observation of surface level, behavioral functioning. Thus, behavioral characteristics manifested in the diagnostic examination and, hopefully, the home and school settings, too, are taken to constitute the necessary and sufficient diagnostic criteria of the psychotic disorder. Related to the "syndrome" model are purely descriptive approaches which similarly utilize observable, descriptive data but do not, however, define a specific syndrome based on a fixed number of behavioral criteria.

The various lists of descriptive features, definitions of syndromes, and classifications of syndrome clusters into separate diagnostic categories have already been discussed at length. Briefly, Kanner (1943) originally defined infantile autism as a syndrome with the two pathognomonic features of social isolation and need for sameness. He later proposed several additional secondary characteristics

(Eisenberg & Kanner, 1956). Rutter (1969) added "impaired language" as a third pathognomonic feature. Rutter (1971), who added seven criteria to Kanner's, specifically termed infantile autism a "clinical syndrome" characterized by "certain basic symptoms and an infinite variety of secondary variations" (p. 166). Creak (1961, 1963) delineated nine characteristics for diagnosing the "schizophrenic syndrome in children," without requiring that all nine or any one particular feature be present. Other authors classified groupings of characteristic syndromes into separate categories. Ornitz (1969; & Ritvo, 1968) considered infantile autism a "specific syndrome" but divided the observed behavioral patterns into five syndrome clusters. Examining various types of psychotic pictures, Despert (1938, 1952; Despert & Sherwin, 1958) distinguished three syndromes of childhood psychosis according to age of onset and pathological features, ascribing only "impaired communication" to all three. The purely descriptive approach is exemplified by Rimland's (1964) extensive checklist of 78 behavioral items.

While utilizing the "syndrome" or descriptive approach, most of its proponents also considered the question of etiology but did so to widely varying degrees. Although they agreed on the underlying premises of the "syndrome" and descriptive model, they differed in their views of underlying causation. Kanner (1943) attributed infantile autism to an inborn disturbance of affective contact and later stressed the parental characteristics which interacted with the child's pathology. He did not, however, elaborate on the nature of the predis-

posing factor. In contrast, Rutter (1969; Bartak & Rutter, 1976) proposed that a specific deficit in the comprehension of sounds is the primary causal defect. Underlying all five of their syndrome clusters, Ornitz (1969; & Ritvo, 1968) hypothesized a faulty regulation of sensory input in infantile autism. Rimland (1964) also suggested a specific biological deficit in infantile autism, namely, an impaired reticular formation in the brain stem. Without closely investigating etiological factors, Creak (1961, 1963) allowed for the existence of an organic factor as one of multiple, unspecified possible causes. Among the "syndrome" theorists, Rutter (1971) presented the interactional view of etiology, elaborating it more fully than Kanner and integrating it with developmental and psychoanalytic principles.

A "disease" model, as such, has not been defined in the literature on childhood psychosis, though it is implied and sometimes alluded to by authors expounding theories of organic etiology. Bender's hypothesis of a genetically determined, diffuse encephalopathy and maturational lag at the embryonic level might be viewed as the theory most consistent with a "disease" model (Bender, 1942, 1947, 1949, 1953, 1956). Indeed, she considered schizophrenia a distinct "entity," "a total biological disorder running a lifetime course from conception to death" (Bender, 1953, p. 217). The resulting abnormal CNS development is manifested, from birth on, by a disorganized pattern of neurological maturation in every sphere of functioning. Other theories of constitutional deficiency are less explicit than Bender's in

demonstrating the unfolding of the disease process throughout development. Yet specific neurological deviations (EEG abnormalities and convulsive disorders), perceptual disturbances (heightened or lowered arousal and deficient sensory responsivity, integration and cross-model processing), motility disorders (retarded and uneven development, with or without particular atypicalities), language and speech difficulties (mutism, specific peculiarities, and arrested, delayed or deviant development), and intellectual impairments might all be thought to reflect underlying disease processes.

Among the authors who utilized the descriptive approach and/or the "syndrome" model, differing positions regarding the concept of a "disease" have been adopted. Kanner (1965) was unequivocal in stating that childhood schizophrenia does not constitute a "disease entity." Others, like Rutter and Rimland, who proposed biological dysfunction in infantile autism might be more inclined to consider it a disease. Further, three writers from within the group of "syndrome" theorists explicitly conceptualized childhood psychosis as a "disease." Despert (1952) defined childhood schizophrenia as a "disease process" and acknowledged that his three syndromes of "autistic psychosis," "schizophrenic illness," and "psychosis in mentally defective children" may include groupings of "several different types of illness processes" (Despert & Sherwin, 1958). More specific in their conceptualization of the illness, Ornitz (1969; & Ritvo, 1968) viewed all types of psychoses in childhood as variants of the same "disease" (Ornitz & Ritvo, 1968), namely, the breakdown in the homeo-

static regulation of sensory input and the resulting condition of "perceptual inconstancy." They considered their five symptom clusters within the autistic "syndrome" as representing descriptive categories of a "single pathological process." Yet, in addition, they suggested that the symptoms themselves may be determined by "multiple etiological factors" in combination with the defective perceptual mechanism operative at birth.

To sum up, the "syndrome" and "disease" models imply different conceptualizations of psychotic disturbances in childhood. Used alone, the "syndrome" approach relies only on observational, descriptive data, assuming that behavioral characteristics, independent of information from other levels of investigation, are sufficient to identify and diagnose the psychosis. Fortunately, the "syndrome" is infrequently defined without simultaneous examination of etiological factors. Unfortunately, however, these factors are sometimes given only superficial and perfunctory consideration. Furthermore, even when the question of etiology is addressed, only descriptive characteristics, by themselves, are still relied upon for identification and diagnosis of the psychotic disturbance.

The "disease" model cannot exist, even theoretically, without incorporating descriptive methodology because the process of identifying a disease process begins with accumulating descriptive data. But again, evaluating its independent, inherent assumptions, the "disease" model also relies on only one source of data for diagnosis, namely, the biological.

While the majority of theories of childhood psychosis derive primarily from either the "syndrome" or the "disease" model, nowhere in the literature are the adequacy and usefulness of these approaches evaluated. Labelling childhood psychosis a "disease" designates an organic process as the single diagnostic criterion, just as considering it a "syndrome" designates descriptive features as the single diagnostic criterion. Both models attribute primary value to the investigation of diagnosis, while neither strives for a more holistic understanding of the child. This author maintains that both models lack a fundamental concern with understanding the total complexity of the disturbance they set out to investigate. The premises and reasoning underlying this opinion will be further explored and developed in the following critique of the literature.

CHAPTER II: CRITIQUE OF THE LITERATURE
ON CHILDHOOD PSYCHOSIS

CRITIQUE OF THE MAJOR THEORETICAL MODELS

The Descriptive Approach

The descriptive methods of diagnosing childhood psychosis foster the erroneous impression that each category defined consists of a homogeneous grouping of psychotic children. The concept of a "syndrome" of childhood psychosis suggests that children thus diagnosed manifest all of a finite number of descriptive characteristics which sometimes include one or more pathognomonic features. It therefore follows that all that is necessary to identify and label a child psychotic is to determine that he exhibits that specific cluster of traits.

In clinical practice, however, the homogeneity implied by this approach is not found. Any child is likely to meet only one or some of the designated descriptive criteria. And even if he meets them all, he inevitably manifests an added array of psychotic and nonpsychotic behavioral characteristics that is uniquely his own. This truth was demonstrated by Kaufman et al. (1963) who found in schizophrenic children a broad range of behavioral patterns which included schizophrenic symptoms and neurotic-like symptoms, such as phobias, tics, somatic features, antisocial acts and others. Clearly, it is nosologically unsatisfactory to assign an identical diagnosis to a diverse group of children who present varying numbers of the defined criteria, in addition to highly individualized constellations of symptoms and behav-

iors. One diagnosis cannot adequately account for the broad range of similarities and differences in both psychotic and nonpsychotic features. Furthermore, the possibilities for quantitative and qualitative variations of the specified and nonspecified behavioral traits are limitless. Thus, the "syndrome" model ignores the unequivocal fact of heterogeneity and the diagnostic problems which derive from it. Further, it contributes little to actual clinical understanding of the individual child or group of children it presumes to diagnose.

Similarly, systems of classification based on several descriptive features fail to account for individual difference. Classifications based on one single descriptive dimension are even less adequate in this regard. In light of wide diversity, it seems unreasonable to assume that one or even several shared traits are sufficient to define a diagnostic category and to differentiate it from other groupings. Moreover, just as heterogeneity necessitates variability within groups, so it necessitates overlap between groups. Additional diagnostic problems, therefore, arise which are again neglected by the descriptive approach.

It might be argued that longer lists of descriptive variables, such as Rimland's (1971) 78-Item Check List, allow for a greater degree of clinical diversity among psychotic children. While it is true that such lists recognize many more possible characteristics, it is by no means apparent that they clarify the problems of classification and diagnosis associated with the heterogeneity of symptoms.

Several authors have emphasized the variability of individual cases, even within similar groups of children (Rank, 1955; Reiser &

Brown, 1964; Szurek, 1956). In testing genetic hypotheses, Spence (1976) observed that the diagnosis of autism reflects a complicated structure of multiple variables and that different children present different aggregations of symptoms. He believed that such heterogeneity poses obstacles for genetic research. Menolascino (1965) echoed this view, pointing out that "autism" as a symptom can occur in diagnostic categories other than psychosis. Many autistic reactions represent symptomatic behavior rather than specific syndromes.

As demonstrated by Mack and Gair (1965), considerable clinical variation leads to difficulties in determining both the necessary and sufficient symptoms for diagnosis. Using 52 signs culled from studies reported in the literature on childhood psychosis between 1937 and 1961, the authors assessed a group of psychotic children and two control groups of borderline and neurotic or behavior disordered children. They found they could distinguish psychosis on the basis of either or both of two symptoms--aimless, persistent rocking and the inability to discriminate between animate and inanimate objects. The two symptoms, however, were not present in all psychotic children. Further, only three symptoms occurred in all the psychotic children and these occurred in neurotic and borderline children as well. Thus, the behavioral features characteristic of psychotic children were not found to be distinctive of their diagnosis. Rutter (1971) attempted to assess the validity of Creak's (1964) nine criteria and found that some of the nine points failed to differentiate among groups of children to any significant extent.

In Kaufman's et al. (1963) investigation of childhood schizophrenia, the nonschizophrenic, neurotic-like symptoms sometimes coexisted with obvious psychotic patterns but sometimes masked the underlying schizophrenia. Based on this observation, Kaufman distinguished between manifest and latent pathology. Because different diagnostic meanings can inhere in symptoms that appear similar, Kaufman's crucial distinction presents considerable complications for the task of descriptive diagnosis. Yet it has gone unrecognized by the proponents of descriptive methods.

Aside from its assumption of clinical homogeneity and its inattention to the problem of manifest versus latent pathology, numerous additional obstacles have prevented the descriptive approach from accomplishing its presumed diagnostic aims. To date, clear-cut, objective criteria for childhood psychosis have not been defined. Metcalf (1973) has emphasized the difficulty of standardizing behavioral descriptions. He employed Rimland's Check List in an effort to determine whether descriptive check list methods can discriminate among children with severe disorders. First, he discovered that staff and parents who evaluated the children offered different ratings on the behavioral items, probably due to varying interpretations of the items and of the children's behavior. In his study of Creak's criteria, Rutter (1971) also found that some proved to be ambiguously stated and open to misinterpretation. Second, Metcalf noted that children with the same summed score according to the check list rating system could look quite different clinically. Third, he underscored the pitfalls inherent in relying on retrospective assessments of parents, namely,

that their evaluations change during treatment as their guilt and self-blame diminish. Based on clinical experience, this author would emphasize the general unreliability and limited validity of parental reports as a function not only of change during treatment but on innumerable, interacting situational and personality variables.

Metcalf (1973) and Goldfarb (1964) made the crucial point that descriptive diagnosis is impeded not only by the great diversity among psychotic children but by the wide fluctuations of the symptoms within individual children. Beres (1956) and Bomberg et al. (1973) also observed that psychological behavior varies over time. This truth is confirmed by experimental evidence. In Metcalf's study, the children's scores on the Rimland Check List rating system changed dramatically enough with a 17-month period (all ratings done by same or different raters) to warrant possible shifts in diagnosis. In addition, follow-up studies, discussed above, suggested that "recovered" psychotic children continued to manifest abnormalities, such as "social unawareness" and inappropriateness, despite general improvement and satisfactory work and school adjustment (Eisenberg, 1956, 1957a; Weiland, 1964). Other studies indicated that "even when bizarre behaviors diminish and social relatedness increases, gross deficits in other areas of functioning remain" (Hingtgen & Bryson, 1973, p. 553). The results of such studies raise additional questions regarding the appropriateness and usefulness of descriptive diagnoses based on behavioral characteristics that do not remain constant. Even Creak (1963), a proponent of the descriptive model, recognized the limitations in employing her nine criteria. After reviewing her experiences

with a follow-up study of 100 psychotic children (Creak, 1963), she admitted that "even with reasonable care and long term oversight, it is still possible to be in the dark as to the real diagnosis" (p. 88).

Descriptive studies on epidemiological factors, family constellation, behavioral characteristics, and prognostic variables are of minimal value in actual clinical diagnosis and treatment; for regardless of statistical data they provide, each case presents its own unique and intricate set of descriptive variables which must be carefully studied in relation to one another. Some of these characteristics may have a referent in the research findings; others may not. Regarding those that do, the clinician is then merely informed that those particular epidemiological, familial, behavioral, or prognostic factors are either typical or atypical of psychotic children. This information is minimally useful for the practicing clinician.

Consideration of etiological issues in connection with the descriptive model highlights some of its other inherent limitations. By examining only the surface behavioral manifestations of childhood psychosis, the descriptive model reduces an infinitely complex disorder to an oversimplified set of unidimensional factors. The model's surface scanning ignores the critical question of underlying causation. Thus, the descriptive approach may be likened to monocular vision in that it precludes depth perception. Metcalf (1973) contended that rendering "behavioral descriptions of psychotic children without implying etiology has interfered with scientific quantification" (p. 464). This author would add that ignoring etiology forecloses, a priori, the pos-

sibility of developing adequate diagnostic formulations.

Among the descriptive theorists, those who offer etiological explanations generally do so perfunctorily, failing to integrate causal factors with behavioral findings. In addition, they have collectively offered a confusing conglomeration of organic, interactional, and nonspecific hypotheses. Chess (1968) criticized purely descriptive methods of investigation from the perspective of her interactional view of etiology. Maintaining that behavior results from interactions between the organism and the environment, she noted that, in the process of development, various types of behavior are affected by distorting organic processes and that particular behaviors always bear the imprint of personal life experiences. Behavior patterns, therefore, cannot be understood unless both organismic and environmental factors are examined in depth. Chess also suggested that the interactional view leads to a more thorough and detailed consideration of specific behavioral characteristics than the descriptive approach.

The Etiological Approach

Implicit in any discussion of etiology is the fundamental controversy between organic and functional points of view. In attempting to apply this dichotomous conceptualization, the difficulty of making an "either-or" decision becomes immediately apparent. Bender (1968) maintained that "in truth, no one adheres to a strict etiological concept" (p. 16) and that most theorists acknowledge something inborn that produces a schizophrenic-like reaction to stress. She suggested that this rejection of a sharp organic-functional distinction grew out of clin-

ical experience. "All those who work with deeply disturbed children have had difficulty with the differential diagnosis between schizophrenia and the organic group on the one hand, and schizophrenia and the neurotic reaction pattern on the other" (Bender, 1968, p. 216).

While many investigators no longer advocate the organic-functional dichotomy, others still adhere to "either-or" points of view. It has been shown by this author that some etiological theories either fail to recognize multiple causal factors or acknowledge them only superficially, while leaving the critical interplay between them unexplored. By emphasizing one or another factor and minimizing the significance of others, purely organic and environmental theorists contradict the cornerstone principal of human development, namely, that development proceeds from the continuous interchanges between constitutional givens and environmental input. The interactional view of etiology in childhood psychosis, by definition, rests on this principal and progresses beyond the long ago dismissed mind-body dualism. It attributes equal etiological significance to organismic and environmental variables, paying full respect to both biological and psychological influences on development.

Theories Concerning Organic Factors

Like the descriptive approach, the notion that an organic dysfunction, by itself, can satisfactorily account for psychotic disturbances in children is highly reductionistic. From an exclusive interest in organic functioning, such thinking disregards the psyche and conceives of the human being as a purely biological organism. It defines child-

hood psychosis exclusively as a disease. In this author's opinion, however, simply postulating a disease does not sufficiently explain the complex psychopathology of the disorder. It does not account for the severely disturbed object relations, ego functioning and, hence, adaptation characteristic of psychotic children, which will be elaborated in Chapter IV.

Many organic theorists suggest that a unitary biological dysfunction causes childhood psychosis. Such hypotheses ignore the heterogeneity of physiological functioning within and between psychotic children. Each organic theory presumes to causally explain psychosis in a large sample of psychotic children. As Miller (1975) has pointed out, these "arguments for causality...have to be considered inconclusive since any...(organic finding) may be absent in a significant number of cases and, moreover, any may occur in nonschizophrenic patients as well" (p. 368). Even if attributing a single causal biological deficit to an entire category of psychotic children could be justified, and even if the occurrence of the same deficit in nonpsychotic children could be overlooked, it would still be necessary to take into account the additional and diverse organic manifestations that can confidently be expected to appear.

Postulating a disorder of the total organism, Bender (1968) criticized theories of single deficits for their failure to consider all the accumulated data on schizophrenic children. "They tend to interpret only specific areas of behavior in which the investigator happened to be interested" (pp. 217-218). Within the group of theories cited

by Bender, Benda's (1968) presented the most limited type of perspective possible. Concerned with differentiating schizophrenia from mental retardation, Benda criticized Bender's lack of specific criteria for diagnosis on the basis of her own unquestioned conviction that childhood schizophrenia is a "specifically metabolic disorder." It was toward this kind of narrow, single-minded focus that Bender directed her remarks.

The spectrum of specific organic deficits proposed in the literature convincingly demonstrates that a wide range of physiological dysfunctions are present and possible in psychotic children. Individual investigators, however, neglect to consider the existence and implications of other biological theories and findings. Viewed together, the findings reflect the existence of organic heterogeneity and thereby pose serious problems for any hypothesis of single causation. Rimland (1964), who offered his own organic explanation of autism, noted that the lack of consistent findings of physiological or neurological impairments is cited by psychogenic theorists as an argument against biological causation. He, unlike many other investigators of constitutional deficiency, admitted to the speculative nature of his hypothesis that a mechanism in the reticular formation links sensation to memory and causes the autistic child's "grossly impaired...ability to relate new stimuli to a remembered experience" (p. 79).

In addition to assuming a reductionistic outlook on the individual, a homogeneous view of psychotic children, and a short-sighted

focus on physiological functioning, organic theories are based on questionable reasoning. Genetic factors, pre- and perinatal complications, and neurophysiological disorders are thought to cause childhood psychosis. Their etiological significance is inferred from the presumably increased incidence of such factors in psychotic children and from the increased presence of presumably related neurological, developmental, perceptual, motoric, intellectual, and language disturbances. As already cited, the higher incidence of the various possible organic and functional deficits has been disputed in the literature. Yet even if this were not the case, it would still not be justified to take the increased incidence of either as proof of biological causation. The organic factors may predispose the child to functional disturbances or increase the likelihood of his becoming psychotic by interacting with environmental variables. But they do not necessarily, by themselves, cause psychosis.

Further, taking the functional impairments as evidence of organic etiology presumes that they are proof of constitutional deficiency, while, in fact, they may not be. Acknowledging mind-body interactions implies that psychological factors can also account for changes in physiological functioning. Kaufman et al. (1959) noted that primary manifestations of schizophrenia often involve the impairment or distortion of body functions associated with speech, motor activity, and the autonomic nervous system. Yet despite the expression of these symptoms through somatic channels, he maintained that one cannot assume that they arise from genetic factors; for "it is well-known that

experiential phenomena can produce structural change" (p. 461). Thus, biological abnormalities in childhood psychosis might represent the effect rather than the cause of the psychological disturbance. Indeed, there has been controversy over whether symptomatic behavior, such as minimal or deviant perceptual responsivity, minimal or deviant speech and language, and dull or variable intellectual functioning reflect primary organic deficits or secondary reactive manifestations.¹ Certainty regarding the initial starting point of these inevitably circular processes cannot, however, be reached.

Rather than specifying a single, isolated deficit, Bender and her followers proposed that a global lag in central nervous system development at the embryonic level causes childhood schizophrenia. Though Weiland (1964) did not consider Bender's findings of "soft" neurological signs convincing, Bender's theory does permit for a diversity of symptoms within and between schizophrenic children. Further, in a later summary article, Bender (1968) acknowledged that "there is no such thing as a child who has any one condition in pure form. No child has either a neurosis alone, or an organic condition alone, or schizophrenia alone...the disturbed schizophrenic child has some evidence of both organicity and neurotic defenses" (p. 216).

While Bender recognized both organic and functional factors, her theory, nonetheless, remains open to criticism. Mahler (1968b) credited Bender for "her consistent emphasis on the biological factor in

¹See relevant discussions of perceptual responsivity (p. 23), intellectual functioning (p. 28), speech and language deficits (p. 31), and autism and mental retardation (p. 63).

the etiology of childhood schizophrenia, particularly a hereditarily determined proclivity to disturbance of the orderly timetable of extra-uterine maturation of the brain and its functions" (p. 231). Mahler, however, faulted Bender with abandoning the study of the interaction between biological and environmental variables. She stated that Bender failed to consider the schizophrenic child's inability to utilize "sociobiological" mothering. Mahler also criticized Bender for neglecting the importance of psychological and emotional factors, in addition to physiological ones, as activators of crisis. Bender's original theoretical conception of defense mechanisms, which remained undeveloped, stressed only their compensatory coping function vis-a-vis catastrophic biological upheavals which secondarily assume psychological significance. She overlooked the psychoanalytic distinction between signal anxiety and organismic panic which Mahler herself underscored. "The most marked characteristic of anxiety in schizophrenic children is their inability to bring organismic distress under ego control and to utilize it as signal anxiety, indicating danger. Instead, it characteristically remains unmitigated annihilation panic or, at best, diffuse (even though marked) organismic distress" (Mahler, 1968b, p. 232).

In evaluating the overall contribution of organic theorists, Hingtgen and Bryson (1973) concluded that the experimental evidence seems to indicate neurobiological damage in a large number of psychotic children but does not support one organic theory over another. Weiland (1964) agreed that no neurological or neurochemical disorder in psy-

chotic children has been consistently demonstrated. Hingtgen and Bryson made the further point that none of the organic theories offer adequate explanation for the fact that most organically damaged children are not psychotic. The authors suggested that in order to test the organic hypotheses more data is needed on the normal functioning of the systems etiologically implicated in childhood psychosis.

Theories Concerning Environmental Factors: The Psychodynamic Viewpoint

Psychodynamic explanations of childhood psychosis argue that parental psychopathology promotes a pathogenic relationship to the child which, in turn, impedes his development and engenders psychosis. Stress from injurious parenting and often from other traumatic events as well generate psychopathology in the child, particularly if the stress occurs during periods of heightened developmental vulnerability.

Several major arguments against this point of view have been set forth in the literature. Psychogenic theories have been criticized for their failure to present conclusive evidence for parental pathogenicity and for trauma, for causal rather than reactive explanations of psychogenic factors, and for the existence of "critical periods."

Several authors have reviewed the research on personality variables in parents of psychotic children as well as the literature which argues against parental pathogenicity. In their review, Hingtgen and Bryson (1973) found little or no evidence for parental psychopathology. In their review of the literature, Laufer and Gair (1969) found the frequent conclusion that specific reported findings are not confirmed and that parents of psychotic children do not differ significantly

from parents of other groups of children, including normals. Frank (1965), for example, found that each characteristic considered typical of families of schizophrenics existed in families of controls as well. Similarly, Rimland (1964) noted that not all parents of autistic children fit the typically described patterns. Thus, distinguishing characteristics among parents of psychotic children have not been conclusively demonstrated and the evidence for theories of parental pathogenesis remains controversial.

In an article on the necessary and sufficient conditions for psychiatric explanation, Wender (1967) reviewed studies on the incidence of psychopathology in parents of psychotic adults and children. In his discussion, he first maintained that the findings presented to demonstrate psychogenic contributions to psychosis are rarely invariably present in every instance of the disorder. Second, he explained how the findings are limited as explanations without postulating a special sensitivity in the child. On the basis of these two arguments, he concluded that the psychogenic factors postulated in the research constitute neither the necessary nor the sufficient factors to account for psychosis. Wender, nonetheless, argued that it remains important to determine as many psychogenic factors as possible which are "improbably due to chance," even though it is not possible to assert that they are causally necessary or sufficient.

While severe trauma is often considered critical in psychodynamic theories, Weiland (1964) reported that history of trauma did not exist in even a majority of the clinical cases he studied. Discussing resi-

dents of institutions for "dependent children," he found that the children had suffered the same rejections and deprivations considered pathogenic in childhood psychosis without necessarily developing the disorder. He, therefore, concluded that traumatic experiences may be causally related to the appearance of psychotic conditions but, alone, do not suffice to explain them. While Weiland discussed children who developed nonpsychotic disturbances and personality disorders, Hingtgen and Bryson (1973) drew attention to children subjected to emotional stress who nonetheless develop into normal adults. The related argument that the siblings of psychotic children are often normal has also been raised to refute psychogenic theories. The failure to account for normal siblings is particularly striking in theories which postulate severe deficits in "mothering" capacities (Miller, 1975).

Returning briefly to Wender's contributions, his first argument is consistent with this author's emphasis on clinical heterogeneity. Just as interindividual variation will present exceptions to any descriptive criteria, so it will present evidence to contradict any etiological factor proposed. Obviously, parental psychopathology is no less varied than child psychopathology. Therefore, this author would support the notion that parental disturbances are etiologically significant but would not presume that a particular set of psychological traits could characterize all the parents of psychotic children. Similarly, traumatic events can have deleterious effects, depending on their nature, timing and duration and on the responses of the parents and child to them. Yet no particular group of traumatic factors can

be considered necessary and sufficient to produce all cases of childhood psychosis. Lastly, this author supports Wender's proposal that efforts to delineate psychogenic factors be continued, even if causal necessity and sufficiency cannot be asserted. Awareness of common pathogenic parental and parent-child interaction patterns will enhance one's ability to recognize those dynamic constellations. Yet familiarity with prototypical patterns should not limit the range of etiological hypotheses considered, but rather enhance diagnostic and psychodynamic understanding.

Some critics of psychogenic theories do support the findings of parental differences but view them as reactive to the difficulties of rearing psychotic children. As summarized by Laufer and Gair (1969), they see the parents of psychotic children as largely affected by the psychosis rather than as causing it. Theories of parental causation have not demonstrated that any particular family constellation or mother-child relationship is the cause rather than the effect of the psychotic disturbance in the child. Rimland (1964) and Rutter (1969) both rejected the idea, proposed by Bettelheim (1956, 1957) and others, that parental behavior causes autism. In view of the fact that unusual autistic behavior is manifested in earliest infancy, they reasoned that parental abnormalities would have to be extremely severe in order to effect such gross and immediate disturbances.

From this author's perspective, it does not seem that the parents "cause" the psychosis or that pathogenic parental behavior is merely reactive to the child's psychopathology. To this author, it appears

more reasonable to assume that, from birth on, constitutional vulnerability and parental psychopathology are probably both present and influence each other in ongoing, circular interactions. It is likely that constitutional deviation in the child evokes anxiety, confusion, guilt and anger in his parents. But it is also likely that their particular pathology renders them unable to cope with and respond to his deficits in ways that would promote compensatory adaptation.

The final major criticism of psychogenic theories concerns the assumed existence of "critical periods" during which children are especially vulnerable to stress and faulty parenting. Reviewing the relevant research, Hingtgen and Bryson (1973) found no evidence to confirm that critical periods actually exist or that stress and mishandling actually occur to psychotic children during such periods. Koupernick (1971) also noted inadequate proof for the existence of "critical periods" and argued against environmental etiology on that basis.

Discussing the etiology of infantile autism, Rimland (1971) summarized three additional arguments against the psychogenic point of view. He noted, first, that there is consistent sex ratio of three to four boys to one girl in infantile autism, second, that all cases of twins reported in the literature have been identical, with both afflicted, and third, that autism can occur or be simulated in children with brain damage.

Several authors have criticized the research methodology of the

psychogenic studies. Weiland (1964) argued that the psychological theories proposed are derived from small samples of subjects and that few attempts have been made to study these findings with larger samples. Rabkin (1965) reviewed various concepts used in family studies and concluded that the familial characteristics investigated were inconsistent and inadequately controlled and lacked predictive power.

Theories Concerning Environmental Factors: The Behavioral Viewpoint

Derived from principles of learning theory, behavioral theories of environmental causation define the processes of personality functioning in terms of stimulus-response connections. These are differentially reinforced primarily by their external effects which, in turn, engender new stimulus-response patterns. Rutter (1969) pointed to the absence of supporting evidence for the abnormal patterns of environmental reinforcement which are assumed to cause psychotic behavior. He also noted that the behavioral approach is based on the child's good response to the operant conditioning treatment methods it advocates. Yet, according to Rutter, behavioral treatment techniques have failed in many cases and the seeming positive responses have been short-lived and situation-specific. More importantly, Rutter criticized the circularity of inferring the nature of the causal process from the type of therapy which is effective.

While this author views environmental reinforcements as a critical determinant of personality development, she maintains that the behaviorists' disregard for other dimensions of experience distorts the essential nature of human development. Multiple external as well as

internal psychological and biological stimuli impinge on the child at every moment and interact in complex ways to shape his development. Thus, the behaviorists' "stimulus" is multifaceted in every situation. Moreover, the individual child experiences, assimilates and adapts to inner and outer events in his own unique way. Intricate personality processes combine physiological and psychological (affective and cognitive) factors, from both past and present, to determine each response. In turn, each behavioral "response" is also complex and comprised of multiple physiological and psychological aspects. The behaviorists, however, reduce the intricacies of personality functioning to simple equations, ignoring the individual who is receiving the "stimuli" and producing the "response." By conceiving of personality as a simple collection of parts, the integrity of the whole personality make-up is lost.

Dualistic and Interactional Theories

The interactional point of view is consistent with this author's belief in the mutual contributions of innate and environmental factors to the development of childhood psychosis. Interactional theories aim for a holistic understanding of the human being that is consonant with general principles of normal personality functioning and development. Dualistic theories are similar in that the continuum they propose--with the exclusion of its endpoints--is comprised of combinations of constitutional and environmental variables. One advantage of the dualistic model is that its concept of a continuum graphically illustrates the infinite number of possibilities for combinations of causal factors

and renders the relative etiological significance immediately recognizable. As with the interactional viewpoint, the notion of etiological dualism assumes heterogeneity and provides for it from the outset. A major purpose of the dualistic approach is, in fact, to account for diversity in etiology and clinical presentation. The approach falls short, however, of attaining a holistic view by allowing, even theoretically, for the possibility of pure organic or environmental causation at each end of the continuum. It does not place sufficient emphasis on the ongoing interaction of factors.

Despite their emphasis on multiple determination, the interactional theories also pose notable problems. Many give only cursory consideration to innate factors, without specifying the type of constitutional vulnerability or underlying organic deficits they presume exist. Because of their stronger interest in psychodynamics, they fail to articulate the nature of the innate characteristics of the child which contribute to the pathogenic parent-child relationship. Like the purely psychogenic theories, many pay almost exclusive attention to the influence of the environmental variables of trauma, stress, parental psychopathology and inadequate mothering. Several authors, however, bypass this pitfall. Kirk (1968) delineated perceptual deficits and described the circular relationship between the child's resulting learning problems and the parents' difficulties in rearing. As discussed above, Bergman and Escalona (1949) detailed the unusual perceptual sensitivities of infants who later become psychotic, and Mahler (1968a) postulated a defective tension-regulating

apparatus which precludes adequate utilization of maternal functions.

Hingtgen and Bryson (1973) criticized interactional theories for their lack of clarity with regard to the nature of external stress as well. As is the case with psychodynamic theories, interactional approaches have not consistently identified and defined specific psychogenic factors. Indeed, the language they employ--including phrases such as "gross emotional deprivation," "noxious," "overwhelming" and "inadequate mothering"--begs for further clarification. As argued above, it would be neither possible nor desirable to attempt to attribute identical pathogenic traits to all parents of psychotic children or identical constitutional deficits to all the children. Yet, as likewise argued above, it is nonetheless important to identify as many psychogenic variables as possible which are "improbably due to chance," even if certainty regarding etiological necessity and sufficiency cannot be reached.

Another criticism sometimes directed against interactional theories does not seem fully justified to this author, namely, that they do not specify the degree to which the component etiological factors contribute to pathology (Hingtgen & Bryson, 1973). As suggested by the dualistic continuum, the possible combinations of factors of varying relative etiological significance are infinite. No quantitative assessment can be applicable to all cases. The task of evaluating the relative contributions of etiological influences is important for understanding the individual child but should therefore be relegated to the clinician as he studies the child during diagnostic and treatment

procedures.

General Overview

Considered together, the descriptive and etiological models may be criticized on several diagnostic, clinical and theoretical grounds. As will be demonstrated, the model constructed in this paper will aim to address and, hopefully redress, some of their inherent limitations.

Diagnostic Considerations

The major diagnostic problems which derive from the descriptive and etiological models have already been discussed by this author. Additional difficulties stem from the fact that the specific diagnostic criteria proposed by various theories remain unclear (Hingtgen & Bryson, 1973). The inevitable consequence has been a widely recognized lack of interrater diagnostic reliability. Rimland (1971) demonstrated the existing diagnostic chaos in a study of 445 psychotic children each of whom was evaluated by two different examiners. A list of eight diagnostic categories, compiled from reports on 2218 psychotic children, was used for purposes of differential diagnosis.² Not surprisingly, the diagnoses of the two examiners agreed in only 55 out of the 445 cases evaluated.

Different proposals have been offered to remedy the current

²The diagnostic categories employed included autistic, infantile autism or early infantile autism, childhood schizophrenia, emotionally disturbed or mentally ill, brain damaged or neurologically damaged, retarded, psychotic or symbiotic psychotic, and deaf or partly deaf.

state of diagnostic confusion. Laufer and Gair (1969) suggested that "refinement of classification remains essential for the evaluation of etiologic and therapeutic work within this broad group of seriously sick--'psychotic,' 'schizophrenic'--children" (p. 382). Bomberg et al. (1973), however, opposed the classification of severe disturbances into discrete categories. To replace existing nosology, he endorsed the concept of a "spectrum" of psychopathological severity formulated by Szurek (1956).

Szurek (1956) underscored the fact that "clear-cut criteria for a nosological entity are not easily defined" (p. 522). He maintained that two types of differential diagnoses are particularly difficult without "prolonged therapeutic study." One problematic differential is between childhood psychosis and mental deficiency or CNS and systemic diseases in children under age 5 or 6 (especially when speech is absent or minimal); the other is between childhood psychosis and very severe, chronic, psychoneurotic (obsessional or severely phobic) disorders. Szurek also recognized that mixed clinical pictures exist. Similarly, Menolascino (1965) pointed out that relatively few unitary etiological diagnoses amply represent the presented clinical phenomena and that etiological and diagnostic considerations often suggest two or more primary and/or secondary diagnoses. For these reasons, Szurek (1956) advocated the greater utility of a spectrum of psychopathological severity. He stated that it is "clinically (that is, prognostically) fruitless, and even unnecessary, to draw any sharp dividing lines between a condition one would call psycho-

sis, autism, atypical development, or schizophrenia. The concept of a gradient of severity of disorder, or that of a psychopathological spectrum...fits our experience most closely" (p. 522).

Treatment Implications

Descriptive and etiological theories of childhood psychosis generally neglect the critical task of articulating the clinical implications of their formulations. Ekstein and Friedman (1968) noted this lack of synthesis between diagnostic theories and treatment methodology. Stressing the "inseparability of diagnosis and treatment within both clinical practice and research," the authors argued that just as "treatment without diagnosis is blind, haphazard, and unsuccessful, conversely diagnosis without treatment is empty and meaningless....To divorce diagnosis from treatment is to arrive at a clinical depiction of the illness but not to reach or experience the illness itself" (p. 227). When treatment and diagnosis are separated, one is "left in the position of applying known and tried techniques of therapy to specific but isolated symptoms, behavior patterns, or physiological conditions but not to the illness itself" (p. 227). Just as the diagnostic process must take into account the multiple facets of behavior, and just as etiological speculations must pay consideration to multiple causal influences, so too must therapeutic interventions address the multiple manifestations of the psychopathology in the context of the total person. This goal can be best accomplished by utilizing the process of treatment itself as a source of valuable information about the pathology. As the therapist observes the effects of his

treatment methods on the child's emotional and behavioral functioning and learns the techniques which promote change, he simultaneously enriches his understanding of the psychotic disorder. Thus, a comprehensive understanding of childhood psychosis must encompass "the causes of cure as well as of the illness" (Ekstein & Friedman, 1968, p. 224).

Relating these arguments to the organic theories of etiology, Ekstein and Friedman (1968) suggested that physiological studies of the central nervous system, autonomic nervous system, endocrine system and metabolic states yield information about the endocrinology, metabolism and nervous system of schizophrenics but not about schizophrenia itself or its treatment. Criticizing Bender, in particular, the authors suggested that her investigation of etiology and diagnosis contributes little to a foundation for a "rational, reliable and appropriate method of treatment." While her etiological theory does embody prescriptions for treatment, the biological implications of her diagnostic conclusions lead to physiological and somatic therapies which have not convincingly demonstrated a reliable effect on the illness. The critics maintained that the failure of her diagnostic methods rests on her disregard of treatment as a source of data. Therefore, while her coherent and integrated theory intellectually accounts for the data, it may not actually explain schizophrenia itself.

Theoretical Formulations

It is relatively clear that biological theories contribute knowledge primarily about the physiological functioning of psychotic chil-

dren. By ignoring the unique, psychological experiences of the child, they may maintain intellectual integrity but, nonetheless, fail to capture the essential nature of his psychosis. Conversely, it may be said that psychogenic theories do not adequately conceptualize psychosis due to their disregard of innate vulnerabilities. The exclusive focus of the descriptive approach on behavioral, familial and epidemiological data is equally incapable of formulating a holistic theory which explains the day-to-day functioning and experience of the psychotic child.

Several criticisms of the theoretical underpinnings of descriptive and etiological studies have been raised. Hingtgen and Bryson (1973) criticized the relative independence of many studies from formal theoretical considerations. Because the studies lack adequate theoretical bases, they are largely unable to generate testable hypotheses. This author would add that the theories derived from the research are fragmentary in that they address only selected aspects of the psychological or physiological behavior of psychotic children. Rather than the absence of theory, Metcalf (1973) noted a diversified array of theoretical approaches and suggested that each investigator has followed his own ideas in evolving a more or less personal nosology for behavior, symptoms and syndromes. Thus, a lack of collaboration, mutual regard, and cross-validation has led to the proliferation of theories and associated labels and, inevitably, to confusion.

HIGHLIGHTS OF THE PROPOSED EGO PSYCHOLOGICAL MODEL

Diagnosis and Etiology

The theoretical model which will be proposed by this author utilizes the descriptive and etiological approaches as points of departure for a more comprehensive conceptualization of childhood psychosis. Within the framework proposed, clusters of descriptive characteristics are not relied upon for diagnosis. A discrete number of behavioral symptoms is not presumed to adequately explain complex psychopathology, nor is any one particular symptom deemed critical for the diagnosis of childhood psychosis. As Weil (1953b) has stated, "hardly any one symptom is specific. It is the entirety of the picture that makes for the diagnosis" (p. 518).

Alternately, descriptive characteristics are considered outward manifestations of underlying, structural disturbances. They provide only the starting point for deeper investigation of deviant developmental processes. They serve to direct the clinician's attention in his attempts to identify developmental lags and failures and locate their onset and to guide his exploration of their underlying causation, interrelations with other areas of personality, and prognostic significance. Areas of functional disturbance can be identified in the course of several diagnostic sessions. But the thorough diagnostic investigation required can only be accomplished over the extended course of treatment. As noted above, Ekstein and Friedman (1968) upheld the view, shared by this author, that prolonged therapeutic in-

volvement is critical to diagnostic assessment. They asserted that "diagnostic understanding of the nature of childhood schizophrenia can be achieved only by knowing and coming to grips with the illness itself, which can be effected only by understanding the psychic structure and functioning of the person with the illness. Yet this understanding is derived only by treatment of the person" (p. 227).

The interactional view of etiology constitutes a central principle of the proposed model. In addition, the basic principles for the development of pathology are considered identical to those of normal development. From this perspective, the interactions between constitutional and environmental variables take on added developmental significance. According to Escalona's (1963) view that development proceeds from the combined processes of maturation and learning, the infant's experience arises out of the interaction of his biological characteristics with the environment as he successively encounters it. Escalona argued that "the assumption of a reciprocal relation among influences...should facilitate the recognition that the laws of development...are the same for normal development as for pathology" (Escalona, 1963, p. 243). The essential correspondence between the laws of normal and pathological development will merit repeated reiteration below, for it represents this author's fundamental theoretical orientation. In the case material presented in Chapter VI, psychopathology will be examined in terms of the nature and consequences of its deviations from normal development. In the process, the understanding of normality and pathology will both be enhanced.

Regarding the etiology of childhood psychosis, the interactional view of development suggests, hypothetically, that if two children are reared in identical environments, constitutional differences could result in only one becoming psychotic. Similarly, only one of two children with identical constitutions could become psychotic as a function of differing environmental variables. This author maintains that while specific organic dysfunctions are often present in psychotic children, a general constitutional vulnerability interacting with particular environmental variables can also account for the development of psychosis. Thus specific deficits are common but not prerequisite. The distinction between general constitutional traits and specific disabilities emphasizes the fact that, in each case of childhood psychosis, biological and environmental variables have differing relative etiological significance.

Aside from the issue of their relative contributions, definitive knowledge of component causal factors is difficult to establish. In the course of an initial diagnostic evaluation, the thoughtful clinician most often arrives at etiological hypotheses which he entertains only tentatively. The reported history may or may not offer clear-cut evidence of deprivation, trauma, parental pathology, or other forms of stress. Organic deficits may be apparent, lacking, or suspected to varying degrees. Only in the course of the therapeutic process can the clinician strive to achieve increased confidence in earlier etiological speculations, and, in some cases, he may never reach certainty at all. Thus, etiological theorizing, in and

of itself, does not lead to a thorough grasp of causative influences. Like descriptive characteristics, etiological hypotheses can only point the clinician toward potentially fruitful avenues for further exploration of the nature and timing of the interactive processes that culminated in psychosis.

The most important consideration of all is, perhaps, that the behavioral and functional impairments of the psychotic child require treatment even in the face of etiological obscurity, though, undoubtedly, understanding of causation can enhance therapeutic efforts. As will be discussed below, the psychotherapy of the psychotic child must be designed to promote growth in the areas of ego functioning which have been distorted in the course of development. Therefore, it is the malfunctioning sectors of personality which largely determine the necessary therapeutic interventions. Laufer and Gair (1969) confirm this outlook as follows: "Considerations of diagnosis have suggested that these need to be twofold, taking into account both the ego maladaptation and the causative factors. The latter may remain obscure, but even when manifest, the management and treatment of the child is largely dictated by the former" (p. 439).

In sum, diagnosis in the proposed model does not derive directly from descriptive characteristics. It does not rest exclusively on speculative etiological hypotheses. In fact, it is not subsumed in a single label. Diagnosis evolves over time, in the course of the therapeutic process, through "the empathic instrument of the trained observer and therapist" (Ekstein & Friedman, 1968, p. 228). Diag-

nosis is broadly based and firmly grounded in a continuous assessment of developmental achievements and failures and of scattered levels of ego functioning as they interact and influence one another. In the course of extended diagnostic evaluation during treatment, manifest behavior is interpreted in terms of structural implications. Evidence of constitutional and environmental contributions to pathology accumulates and their past, present, and future developmental, diagnostic, and prognostic significance is evaluated.

Theoretical Propositions

The proposed model of childhood psychosis seeks to avoid the theoretical shortcomings of the models already discussed. The model and its approach to treatment are based on the major tenets of psychoanalytic ego psychology, and, in particular, on its developmental orientation. The fundamental propositions of the model are thus directly derived from this widely revered school of thought. The forthcoming application of ego psychological formulations to the extended treatment of a young psychotic child represents a further attempt to integrate clinical theory and practice. The value of such an attempt is that, in the process of integration, theory and practice illuminate one another. The validity of the underlying theoretical formulations will be demonstrated by the extent of their usefulness in synthesizing and clarifying a wealth of clinical data.

The primary theoretical formulations of the model concern the structuralization and development of ego functions in the context of

emerging object relations. According to one of its basic principles, smooth passage through the early stages of object relations in infancy is the sine qua non for normal development. Failures and deviations in the attainment of early social milestones can result in developmental disturbances of limited to psychotic proportions. Developmental abnormalities adversely effect the budding ego functions to varying degrees, thereby disrupting the orderly sequence of their emergence and the expected harmony between them. Disequilibrium between lines of development in one stage inevitably distorts the nature and handling of developmental tasks in subsequent stages.

By studying the mutual influences of intact and impaired ego functions in the setting of interpersonal relationships, a holistic view of development and pathology emerges. This comprehensive picture entails behavioral descriptions and provides a basis for investigating the underlying causative factors. Within given limits, it permits reconstruction of earlier ego functioning and object relations and offers prognostic indications for future adaptation. Most importantly, this examination of development over time and across spheres of personality functioning overcomes the limitations of theories which deal only with selected aspects of manifest behavior or biological functioning. Based on the ongoing observation of constitutional factors and psychological traits in their interactions with the environment, this approach can more confidently expect to comprehend the essence of childhood psychosis.

Treatment Approach

The existing descriptive and etiological theories (primarily, the organic ones) emphasize diagnosis and classification as a primary goal. By contrast, the proposed model conceives of diagnostic evaluation as a means to an end rather than an end in itself. The more important purposes of a theory of childhood psychosis should be to conceptualize the totality of the disturbance in its descriptive, etiological, developmental and structural aspects and to formulate a treatment approach that is consistent with the theory. Diagnostic labelling on the basis of description and/or etiology alone provides neither the comprehensive understanding nor the necessary treatment guidelines. This author maintains that a major criteria for the value of any theory of pathology must be its integration with a treatment approach. Thus, the descriptive and etiological diagnostic models which offer no prescriptions for treatment are of limited usefulness. Consideration of data from the therapeutic process itself could help fill this gap while simultaneously enriching the models and enhancing their clinical value.

Only when etiology, diagnosis, and treatment are inseparable functions of an integrated therapeutic purpose can etiology and diagnosis serve as inter-related, meaningful determinants for a rational and effective program of treatment....Through and within the process of treatment of the schizophrenic person, etiology and diagnosis emerge as living, meaningful data which simultaneously explain the illness and provide necessary clues and directives for the formulation of a rational, appropriate philosophy of treatment (Ekstein & Friedman, 1968, p. 25).

In the proposed model, attention to all areas of personality functioning provides clear directives for treatment. The arrested, lagging or deviant ego functions whose development needs to be resumed, supported or reshaped emerge in bold relief. Inherent ego strengths which can be valuably utilized to promote the treatment process also become apparent. The essential therapeutic instrument in this process is the observant, responsive and flexible person of the therapist. He adjusts his mode of relating to the level of interpersonal development the psychotic child presents, using it to facilitate the growth of ego capacities. In mutually stimulating interactions, object relations and ego functions begin to progress. As new levels of interpersonal and ego development are reached, temporarily lost, and regained, the therapist repeatedly meets the psychotic child on whatever level of functioning he presents at any given moment in time. Amidst corresponding shifts in focus and technique, the therapeutic process moves forward as does the child's development.

In the section that follows, the literature on childhood psychosis which is consistent with this author's proposed ego psychological model will be reviewed. The discussion will examine those works which focus on the diagnostic assessment and nature of ego functioning in psychotic children, on the interrelationships between their ego development and object relations, and on treatment approaches addressed to both aspects of their pathology.

CHAPTER III: FORERUNNERS OF THE PROPOSED MODEL:
AN EGO PSYCHOLOGICAL APPROACH TO CHILDHOOD PSYCHOSIS

DIAGNOSTIC VIEWPOINT

Principles of Diagnosis

Critical of earlier models of childhood psychosis, numerous investigators have abandoned the use of descriptive and etiological factors for purposes of diagnosis. Alternately, they have proposed that the diagnosis of psychopathology in psychotic children be based upon the assessment of levels of ego functioning and of growth along developmental lines. Their approach is consistent with the notion that psychosis in childhood is defined by failure, arrest, distortion or regression in the processes of ego development, i.e., in the progressive differentiation and integration of its component functions. This concept of psychosis leads to an appreciation of individual clinical pictures, each of which presents its own unique set of symptomatic and nonsymptomatic features in a particular context of developmental failures and achievements.

In evaluating the checklist method of diagnosis, Metcalf (1973) criticized its neglect of the degree of disturbance reflected in the breadth and severity of symptoms and in "all aspects of ego development." Amidst a confounding profusion of nosological terminology, Beres (1956) searched for unifying diagnostic factors in severely disturbed children. He then recommended a system of functional diagnosis

based on an inventory of impaired and intact ego functions. Esman (1960) found that prevailing diagnostic labels encompassed a wide range of diverse clinical pictures and hence proved useless. Consequently, he maintained that the concept of "ego disorganization" and maldevelopment reflects the pathology present in all cases of childhood psychosis and should therefore replace the existing diagnostic nomenclature. In agreement with Beres' proposal of delineating ego strengths and deficits, he conceived of borderline and psychotic pathology on a gradient of lesser to greater severity of disruption of ego functioning, with fewer to more functions impaired. Cain (1969) summarized and supported this diagnostic approach as follows: "Optimally it would be preferable to set aside the diagnostic label 'child psychotic' and instead speak of severe ego disturbances, proceeding carefully to assess and describe the nature, degree, and interrelatedness of the distortions of each specific ego structure" (p. 139). Further, regarding the treatment of "psychotic" children, this author contends that ongoing therapeutic interventions must be based on a comprehensive understanding of ego functioning including levels of growth and arrest along the various lines of development.

Methods of Diagnosis

Assessment of Ego Functions: A Comprehensive Survey

Beres' (1956) study of the relation between disturbances in ego development and the concept of schizophrenia is a classic work representing the "increasing trend away from sharp distinctions of nosological

nomenclature to the more precise definition of the vicissitudes of ego functions, ego defenses, and ego development in each case" (p. 230). By exploring external manifestations in terms of underlying psychic structure, Beres attempted to delineate the factors which determine developmental arrest and regression as well as the relation of those factors to normal development.

As a background for understanding ego functioning in schizophrenia, Beres (1956, 1971) outlined the general psychoanalytic use and meaning of the term "ego." Accepting Hartmann's formulations, he conceived of the ego as an abstract working concept which represents a substructure of the psychic apparatus that can be defined only by its functions.¹ He summarized Hartmann's theory of development as follows:

(Hartmann) postulated an early undifferentiated psychic state, a common matrix, out of which there later developed the differentiated structures of the id, ego, and superego....The ego develops partly out of conflict between instinctual drives and reality demands, and partly out of autonomous, conflict-free growth. There is a combination of maturational and learning processes; inherent factors and environmental, cultural factors exert their specific influences in varying proportions on the growing psyche (Beres, 1956, p. 171).

Briefly, the "primary autonomous functions" develop mainly through the maturation of inborn, hereditary psychic apparatus.² These functions constitute the "conflict-free sphere" of the ego and are characterized

¹Hartmann's theories of ego development will be explicated in detail in Chapter IV.

²Hartmann's (1939a) list of autonomous ego functions included perception, intention, object-comprehension, thought, language, recall phenomena, productivity and motor development. Beres (1956) added the functions of reality testing and thought to this group.

by stability and resistance to regression and instinctualization. They can, however, lose their autonomy by becoming involved in conflict. Other ego functions develop primarily through learning, experience and environmental factors. These functions derive either from identifications with parents or from drive-defense interactions in conflict situations, in which they mediate between the id, the superego demands of internal reality, and the proscriptions of external reality. If ego functions of the second group acquire stability and independence from conflict, they can achieve autonomy through a "change of function" and become "secondary autonomous functions."

Relating these concepts to schizophrenia in childhood, Beres (1971) suggested that schizophrenia is characterized by disturbed ego functioning which arises from faulty development or regression. Developmental deviations result from innate organic deficiencies and/or environmental factors, such as deprivation in early childhood, while regression results from conflict and can be witnessed within the treatment process. In either case, "What we see in schizophrenia... is that crucial ego functions...fail in their autonomous capacity and are dominated by drive impulses" (Beres, 1971, pp. 20-21).

To illustrate his concept of schizophrenia, Beres (1956) presented clinical cases which exemplify various disturbances of ego functioning. Gathering observations of children in psychoanalytically oriented psychotherapy at a residential cottage school, he used a sample of 18 subjects, most with onset of illness after 6 years

old. Prior to admission, some of the children had been diagnosed schizophrenic; some had been institutionalized at mental hospitals; and some had received electric shock. Despite a variety of reasons for placement, all had suffered traumatic separations, deprivations and other traumatic life experiences. Subsuming their differing disturbances under the diagnostic label of "ego deviation," Beres (1956) stressed "the need to investigate the relation of the disturbance to the stage of development of instinctual drives and ego status of the child, the conflict situation, and the other aspects of the total personality" (p. 173). While describing ego development in terms of seven separate ego functions, Beres noted that he did not intend to return to a type of factor analysis theory. He emphasized, rather, the interdependence and interrelationships of ego functions and recognized the impossibility of addressing any one aspect of ego activity without involving the total personality. Further, he regarded the psyche as a unit whose manifestations result from the interplay of many "genetic and dynamic, hereditary and environmental, inner and outer, conscious and unconscious" factors (Beres, 1956, p. 228).

To summarize the findings which provided the basis for his theory of "ego deviation," Beres (1956) discussed the seven ego functions of relation to reality, regulation and control of instinctual drives, object relations, thought processes, and the defense, autonomous and synthetic functions of the ego. He regarded the relation to reality as comprised of three component functions--adaptation to reality, testing of reality and sense of reality. The former task

is accomplished by several other major ego functions. The latter two involve the complex transitions from the pleasure to the reality principle, from primary to secondary process thinking, and from egocentric, concrete physiognomic attitudes to the differentiation of inner fantasy and outer reality. These processes are, in turn, interrelated with the functions of drive regulation, object relations, thinking and defense. While Beres' subjects did not demonstrate a disturbed sense of reality, they did evidence loss of contact with reality in transient hallucinatory experiences or delusional states and in blurring the distinction between reality and fantasy under the impact of conflict and stress. Thus, age inappropriate distortions in relation to reality were manifest, but, in the context of the children's total functioning, did not warrant the diagnosis of psychosis.

Drive regulation and control constituted a major aspect of reality adaptation and was in turn related to impulse control and delay. It also showed close interdependence on object relations and choice of defenses. Beres found that aggressive outbursts, present with immature ego and superego development, were diffuse, without goal-directedness, and minimally related to immediate frustration. Poor control of other instinctual drives, such as uncontrolled discharge of pre-genital and genital sexual impulses, was also evident. Exemplifying behavioral fluctuations, drive eruptions were often followed by increased control, and deviant drive control and regulation seemed to derive from disturbed early mother-child relationships.

The development of object relationships, primarily founded on

the separation of self and nonself, depended on the establishment of identifications, body image and self-representation. The growth of object relations also depended on the neutralization of drives (Hartmann, 1952) and the development of the reality principle (Mahler, 1952). The children studied were unable to establish sustained relationships. They engaged with others on the basis of pre-oedipal, oral, narcissistic needs expressed in clinging and demandingness. Some were able to progress from self-centered, narcissistic and autoerotic attitudes to transient identifications. They established more sustained relationships with apparent modification of ego structure through identification. Such changes, however, readily broke down and regressed in the face of stress or frustration. In general, the children were not dealing with issues of sexuality.

Beres noted the centrality of deviant thought processes in schizophrenia. Dimensions of thought processes--primary versus secondary process, concrete versus abstract, magical versus realistic, and egocentric versus nonautistic--and the use of language, speech and symbolism, as part of thought processes, were evaluated in terms of appropriate developmental levels. Disturbances in these areas were found in differing qualitative and quantitative degrees and in varying combinations in the sample of children.

Beres' understanding of defense functions rested on two developmental principles. The first is that immature ego functioning renders the defenses of both children and schizophrenics less stable and more primitive than those of individuals with more mature egos

(A. Freud, 1966b; Hartmann, 1952, 1953). Second, "sensitivity to stress and lability of response" (Beres, 1956, p. 211) is characteristic of both children and schizophrenics whose drive discharge is diffuse and nonspecific and utilizes organic channels (Bergman & Escalona, 1949; Mahler, 1952). While unstable defenses and regression is typical of all children, more dramatic fluctuations characterize the defense of functioning of borderline and psychotic children (Ekstein & Wallerstein, 1954). Beres found that rage reactions in his subjects involved the primitive defenses of regression, denial of reality and turning aggression against the self. Amidst the disorganizing throes of rage, they lost the capacity for control based on isolation, reaction formation and repression. The development of these more stable, advanced defenses was attendant upon the capacity for delay, the neutralization of instinctual energy, and the transition from primary to secondary process thinking. Beres suggested that alternating defense constellations derived from different structural conflicts. Thus, intrapsychic conflict in the child or schizophrenic would elicit obsessive compulsive defenses and the need for repetition and continuity. Alternately, conflicts between the ego and external forces would lead to the schizoid picture of regression to narcissistic object relations, primary process thinking and direct drive expression.

Beres found that the autonomous ego functions in "ego deviant" children often became involved in conflict and were subsequently manifested in arrested, limited or precocious development. Locomo-

tion, for example, was sometimes disturbed as reflected in awkward gait, muscular incoordination, limpness of body posture or hyperactivity. Beres recognized the striking scatter in levels of ego functions that emerged. "It is the uneven progression and regression of individual functions that lie behind the impressive variations of the specific individual who may show startling aptitudes in one area with malfunction in others" (Beres, 1956, p. 22). In light of developmental variability, Beres emphasized the importance of evaluating autonomous functions in relation to the functioning of the total personality.

The last ego function studied by Beres, the synthetic function, was defined by Nunberg (1930) as "'the ego's tendency to unite, to bind, and to create' which 'goes hand in hand with the tendency to simplify and to generalize'" (Beres, 1956, p. 220). It is the most important function for preventing ego dissolution and maintaining the organism. As discussed by Hartmann (1947), the development of the synthetic function parallels the overall development of the ego and, in its "organizing function," encompasses aspects of the processes of differentiation and integration. Beres pointed out that the synthetic function cannot be studied in isolation but only in relation to its constituent functions such as secondary process thinking, the binding of instinctual energy, drive control in accord with reality, and the process of compromise formation. Beres noted that failures of the synthetic function in his subjects led to states of confusion.

Regarding prognosis and outcome, Beres maintained that because the child is still in the process of developing, the eventual signifi-

cance of his behavior cannot be predicted. The ultimate nature of his ego functioning will be shaped by his responses to future conflicts and reality demands, by the cumulative effects of new experiences and opportunities for identification, and by the ways in which further development and maturation progresses.

In conclusion, Beres (1956) criticized the vague and the variable usage of the terms "ego strength," and "ego weakness." He argued that "a more precise instrument than the concept of ego strength is needed in the study of ego deviation in schizophrenia. Such an instrument is the detailed analysis of the separate ego functions" (p. 228).

Redl (1951) advocated a similar position and stressed the need for specifying both the concept of "ego weakness" and of "ego support." He noted that frequent synonymous use of the terms "ego weakness" and "ego disturbance" confuses qualitative and quantitative aspects, thereby creating diagnostic and prognostic confusion. The critical task becomes one of "teasing out the precise aspect of ego functioning requiring specific differential therapeutic attention in lieu of global support for a vaguely defined 'weak ego'" (Redl, 1951, p. 532). Redl recommended that a wider repertoire of therapeutic techniques be attempted in pursuit of this aim.

Use of Behavior Rating Scales

Several investigators devised quantified measure of ego functioning in an attempt to objectively assess levels and changes in ego functioning. Coddington and Offord (1967) used Beres' list of seven

ego functions in order to demonstrate its usefulness for clinical appraisal. By developing a 6-point scale for each function, they derived an "Ego Quotient," a diagnostic measure computed on the basis of a rating for each of seven scales. Twenty-one children were evaluated by each of four child psychiatrists in four separate 25-minute unstructured interviews. The examiners then diagnosed the children according to both the A.P.A. nomenclature and the "Ego Quotient." The standard taxonomy yielded an average of 3.3 diagnoses per child, while the "Ego Quotient" yielded an interrater reliability of .90. Thus, the authors concluded that diagnosis on the basis of levels of ego functioning is useful in that it permits a high degree of inter-observer concordance. In addition, it is applicable to all children and has prognostic value.

Wenar et al. (1967) studied the relative therapeutic effectiveness of three contrasting milieus in terms of behavioral changes over a year's time. His work is relevant to the assessment of ego functions in its use of the Behavior Rating Instrument for Autistic Children (BRIAC) (Ruttenberg et al., 1966) which is comprised of four core scales in the areas of relationship, communication, mastery, and psychosocial development. A fifth scale in vocalization and speech development was included in the present study.

Each scale begins with the most severe autistic behavior and progresses to behavior roughly comparable to that of a normal six-year-old. The items within the scales are called levels, and are arranged to reflect the successive changes in the child's behavior as he progresses toward a more adequate development.

The scoring is designed to reflect the complexity of the child's behavior. Instead of assigning a single, most typical level on each Scale, the entire range of observable behavior is scored (Ruttenberg et al., 1966, p. 456).

Ruttenberg maintained that a principle advantage of the instrument is that it can yield a precise picture of similarities and differences within a population in terms of the overall severity of the disturbance and the relative severity of disturbance within the core areas. Similarly, reports of therapeutic improvement can be more specific in terms of area and degree of change. Some of the confusion arising from global and subjective definitions of "autism" and of "improvement" may thus be eliminated. Further, the scales can aid in therapeutic planning by indicating the next developmental step appropriate for an individual child. Finally, Ruttenberg suggested that the revision and corroboration of the developmental lines presented in these scales will permit their comparison with the lines of normal development and of other pathological conditions. This comparison will highlight the essential developmental delays and distortions of autism.

In addition to Wenar's et al. (1967) findings concerning the relative therapeutic effectiveness of three milieus, he also found that therapeutic change was slow in autistic children because progress in each core area proceeded by exceedingly small steps and seemed not to generalize to other areas of functioning.

Diagnostic Use of Specific Ego Functions

Given the interrelation and interdependence of all ego func-

tions, various authors have used the assessment of one particular function to discover the general level and nature of overall ego functioning. Shapiro (1975) proposed that linguistic development provides a measure of overall ego integrity. In a series of studies that led to this conclusion, he examined the productive language of young psychotic children with a schema of morphological scales, comprised of pre-speech items, and functional scales, comprised of noncommunicative and communicative items. Shapiro scaled immature language performance, charting linguistic development as a reflection of ego integrity. Seeking a clinical description of psychotic versus normal children in linguistic terms, he hoped to discover the deficiencies and variations in the language of psychotic children as compared with the language structures inferred in normal development. Thus pathology would be used to illuminate processes of normal development.

Outlining the theoretical basis for his theory, Shapiro first demonstrated the integral relation between language development and the ego functions entailed in object relations and drive regulation.

One of the vehicles that aid children in their separation-individuation processes is the capacity for communicative language. Adequate language abilities at an appropriate maturational stage permit a child to delay his immediate needs and put them into word forms, which serve as maps of the territory to be traversed and as vehicles to communicate needs, while modulating drive derivatives that emerge with separation (Shapiro, 1975, pp. 306-307).

Shapiro underscored the fact that "speech is learned and used in a human matrix" (p. 307). The mother takes pleasure in a child's ver-

balization of phonemes she has transmitted and enjoys gratifying the wishes that he vocalizes with them. Second, Shapiro cited linguistic research supporting the conclusion that grammatical relations develop as an autonomous function of the maturing ego--that "maturational structures and time tables" are built into the child's biological endowment and emerge functionally if he is provided an "average expectable environment" as described by Hartmann (1939a).

Initial studies (Shapiro & Fish, 1969) utilizing the morphological and functional scales demonstrated their ability to discriminate between severe psychoses and developmental language lags. Psychotic speech was characterized by poor syntactical utterances, including echoing (imitation) and context disturbances (utterances with a poor or tangential relationship to the immediate situation). To further explore the role of imitation in the early development of normal and pathological language, Shapiro et al. (1970) examined the records of eight children with psychotic diagnoses and three with nonpsychotic diagnoses, all hospitalized when nearing 4 years of age. Their records were compared with the records of normal 4, 3, and 2 year olds according to a scale of imitative language "ranging from exactly congruent echoing to verbalizations made up of newly created sentences" (Shapiro, 1975, p. 312). The findings suggested that the schizophrenic children used predominantly congruent imitation without newly created forms. By contrast, the normal 4 year old children used newly created forms predominantly. The three children with nonpsychotic diagnoses were more retarded than deviant in their language

forms, approximating the normal 2 year olds with a substantial proportion of newly created utterances and fewer congruent echos than the 4 year old schizophrenics. Considering the ego structures necessary for echoing and creating new forms, Shapiro suggested that an integrative process of reshuffling would be required for the production of original verbalizations.

In a single case study of 18 examinations administered between ages 2 to 6 (Shapiro et al., 1972), intelligible speech and general communicativeness increased but remained, nonetheless, retarded. In the noncommunicative sector, the subject

echoed what he heard, then acquired a storage of phonemic and phrase forms, and then used them later in a rigid, formalistic manner and often without reference to external context. The reshuffling, word-integrating element...seemed to be inoperative (or an alternative mechanism akin to introjection, taking stimuli in whole, was at work), and no assimilative breakdown for future syntactic use could be demonstrated (Shapiro, 1975, p. 313).

In the communicative sector, stilted style with singular reference to the here and now likewise displayed the lack of linguistic ease. Utterances were primarily sentence fragments or sentences cast in the present tense. Future tense, passive voice and negative sentences were never used. Little evidence of the ability to perform grammatical transformation was revealed.

In sum, Shapiro's work suggested that schizophrenic children are able to learn and store phonemic forms largely through echoing. Non-contextual, rigid reproductions then replace echoing as the children

attempt to fit their ideas into these forms. While their capacity for storage provides an adequate or even rich lexicon of forms, their capacity for grammatical transformations is limited. Their basic difficulty coding ideas sharpens the distinction between their thoughts and their ability to use language to convey them. It seems that the flexibilities that are inherent in normal development and rest upon integrative mechanisms are seriously impaired in psychotic children. Their language disturbance is not on a peripheral level of reception but in the integrative aspects of cognitive development. Shapiro likens their difficulty structuring their world through language to their inability to utilize their "mothering principle" as postulated by Mahler (1968a).

These children...cannot pull their experiences with objects and the world together into the unified amalgamation...(of)an identification. The structures within seem to remain discreet, as though introjected ...their objects are "swallowed whole." Development never reaches the stage of full accommodation in which the external person is internalized.

Similarly, the individual words and individual phrases seem locked into rigid recording devices or ego systems that do not permit reshuffling in varied contexts. This rigidity leads to a nonadaptive psychological core of object representations, which shows externally not only in the rigidity of their clinical behavior but specifically and objectively as language behavior... (Shapiro, 1975, pp. 317-318).

In conclusion, Shapiro proposed that a complex, ego-integrated core unifying identification, object relations, and biosocial adaptive capacities can provide the basis for a clinical taxonomy.

Based on reports that the frequency of usage of various grammatic units is fairly stable in conversational speech, Weiland and Legg

(1964) hypothesized that idiosyncratic distributions might be found in specific disorders of ego functioning. Testing their hypothesis in relation to childhood psychosis, the authors compared the language of 34 psychotic children, ages 7 to 16, with that of 16 nonpsychotic and 11 brain damaged controls, ages 8 to 15. A major finding was that psychotic children used significantly more imperative verbs and significantly fewer conjunctions and first-person-plural pronouns than controls. By using the frequency of imperatives and the pronoun "we," the authors could reliably differentiate between psychotic and non-psychotic children.

From a psychoanalytic point of view, Weiland and Legg suggested, first, that the psychotic children's infrequent use of conjunctions might reflect the overall retardation of ego functioning. The reduced complexity of their speech and sentence structure would parallel the reduced complexity of their needs and social relationships. Second, their increased use of imperatives could be consonant with their limited involvement in social relationships. From this perspective, their speech would be less a medium for social context, and, in keeping with their low frustration tolerance, more a vehicle for conveying immediate wants. Given the immaturity of ego and superego functioning, imperatives might reflect the children's attempt to control impulsivity that they cannot otherwise contain. While this author would take issue with the notion that the needs of psychotic children lack complexity and would recommend more exploration of the relation between poor impulse control and command-language, the general proposition that language usage mirrors

aspects of deviant and normal ego functioning merits recognition and invites further validation.

Application of the "Diagnostic Profile"

In contrast to Beres' use of ego functions for diagnostic evaluation, Thomas (1966) utilized Anna Freud's Diagnostic Profile (1965) which presents a comprehensive metapsychological picture of the child along the various "lines of development." Employing the profile, Thomas studied aspects of self and object representations in psychotic children as they reflect arrested, primitive ego development. Her sample consisted of four hospitalized children, ages 7 to 10, at a facility devoted exclusively to the care and study of "atypical children." All four were in a modified form of analytic therapy from which Thomas collected her data.³ Noting the difficulty in evaluating the etiological contributions of organic and genetic versus dynamic and environmental factors, Thomas left the question of etiology unanswered. Accordingly, she ruled out mental defect in her sample on the basis of "extreme primitiveness of instinctual behavior and very uneven ego development" (p. 527). All four subjects had been diagnosed as having childhood psychosis, based on the frequency and intensity of "1) highly unusual or bizarre behavior; 2) speech disturbance indicative of confusion of thought or thought disorder; 3) grossly disorderly relationship to people" (p. 528). Looking at the children in terms of three subgroups of childhood psychosis, none

³For a discussion of the treatment approach employed, see S. Kut Rosenfeld and M. P. Sprince (1965).

had "early infantile autism," one had "childhood schizophrenia" with withdrawal, thought disorder, and periods of marked regression characteristic of later schizophrenia, and three had "traumatic psychoses" with excessive demandingness, a relative absence of pleasure, and histories of trauma sufficiently severe and frequent to be considered causally significant. Thomas (1966) found that despite their diverse adaptive potentials and learning achievements, the children were "identical in retaining archaic, grossly pathological ego attitudes which dominate their primitive capacity for object relations and preclude the maturation of feeling states which have meaning for the child and are recognizable by others....(They had in common) a level of primitivity which persists and remains largely intractable" (pp. 528-529).

The Diagnostic Profile presents a description of external factors including the child, referral symptoms, family background and history, and possibly significant environmental influences, as well as a view of psychic functioning based on personality structure and dynamics, economic factors, adaptation to reality, and genetic assumptions verifiable during and after treatment. Thomas found that use of the profile enabled her to highlight aspects of psychotic children's chaotic development and reaction to treatment but that more significant characteristics of childhood psychosis also appeared in a wide variety of diagnostic categories other than psychosis, namely, in disturbances which dated back to earliest infancy. These critical characteristics did not differentiate between gross psychotic disorders and other severe developmental disturbances which encompass greater adaptive ca-

pacities and lack psychotic features. Thomas, therefore, studied only the peculiar behavior and functioning that had overriding significance for the psychotic child and for which the profile did not make clear provision. In her report, she discussed only those areas of the profile which she attempted to modify given that they did not adequately differentiate between greater and lesser disturbances.

Regarding the family background and personal history of the children studied, all four had been exposed to early trauma. Though none of their parents were "normal," only two children had a grossly disturbed parent or parents. All four children had had early feeding disturbances that persisted in addition to delayed speech with some continued language disturbance. As infants, three had had sleep disturbances and excessive crying fits; two had manifested an abnormal degree of erratic, aimless activity in infancy, while the third had developed this pattern later, and the fourth had been a constant rocker. All four children were in the hospital because their families could not or would not cope with their unmanageable behavior. In contrast to more normal children, these children's histories did not show the expected dynamic interrelatedness in the succession of their symptoms, with one symptom giving way to another as age and maturity progressed.

In assessing their development, Thomas explored two major areas --the development of drives with regard to phase dominance and the distribution of libidinal and aggressive energies in self and object cathexes. The four subjects showed manifestations of overlapping oral, anal and phallic phases with no evidence of phallic dominance or latency achievements. They presented a general picture of arrested

libidinal development, with action and fantasy dominated by primitive, impulsive oral features. They lacked appropriate ego and object relations development, with the latter tied to the oral phase by fantasies of incorporation and primitive identificatory mechanisms.

Self-cathexis was examined in terms of body concept and psychic image of the self. The "atypical children" demonstrated archaic forms of body experience typical of the infant. They confused inner emotional states with physical sensations of body fullness or emptiness and with peripheral sensory experiences. They confused the state of well-being with the possession of a symbolic object, which they kept within visual range, or with possession of the object's symbolic body parts. Elements of their self-image varied from magical to more or less realistic and derived from fantasies, object relations, and ego activities. Their fantasies were primarily of a narcissistic nature as were their object relations. They constantly demanded gifts and tokens of affection which provided transitory satisfaction but ultimate disappointment. They borrowed words from their significant objects without, however, comprehending their meaning. In the realm of ego activities, changes in behavior were linked to the childrens' wishes to please and retain the object. Similarly, the exercise of skills was selectively confined to the presence of a particular object. Yet because object relations existed at many levels simultaneously, with some tendency to withdrawal always present, changes in behavior and investments of effort were always subject to the unpredictable vicissitudes of object relations. At the onset of treatment, the children held no

concept of an ideal self. As the wish to be something different emerged in treatment, magical means of attainment accompanied the fantasy. A time concept in relation to the self also evolved in treatment.

As already mentioned, varied states of object relatedness characterized the cathexis of objects. Normal advances were made but often without the total relinquishment of earlier satisfying forms of object relations. Unpredictable progressive and regressive shifts in the normal sequence of object relations were typical. At a very early level, the psychotic child with precarious body boundaries confused self and other and tended toward dissolution in the object. He then symbolized the object in the nonhuman world and cathected inanimate objects at the expense of humans. In earlier stages, he feared the annihilation and disintegration of the self and used the object as an "auxiliary ego" to ensure the continuity of his identity. Later, dominated by the fear that instinctual forces would overwhelm a helpless ego, he demanded practical assistance from his "auxiliary ego" in controlling his outbursts. Early object identifications were based not on resemblances but on the ways in which the object related to the child's instincts. At a more advanced stage, the child vacillated between egocentric thinking and true awareness of the object, tentatively discriminating actual differences. At the final stage described by Thomas, the psychotic children achieved ambivalent object relations with the concomitant development of defense mechanisms. Somewhat precariously and to varying degrees, the children were able to retain the object as both loved and hated. Through critical,

reality-based comments, they could contain their aggression and gain distance from it. They could feel limited empathy with the object in areas paralleling their own experiences of deprivation. Gratitude and pleasure in what the object offered began to develop. Important objects were more clearly discriminated not only in their appearance and functions but in their individual qualities and characteristics. Lastly, transitory attempts were made to protect the object whose sensory and emotional states could be appreciated.

In sum, Thomas systematized her observations of self and object representations in psychotic children, utilizing formulations of the earliest stages of ego development. In all cases, developmental arrest with archaic modes of functioning involved "a failure in relating at the most primitive ego levels prior to structuralization" (Thomas, 1966, p. 579). While some capacity for development through a modified analytic process was demonstrated, progress was often transitory and unpredictable. The developmental gains achieved, albeit unstably, included "the synthesis of body states into recognizable feeling states ...(which) take on the significance of need signals...the gradual acceptance of a priority of cathexis of the human person as need satisfier...(and) some rudimentary acceptance of a reciprocal feeling relationship with the human object" (Thomas, 1966, p. 578).

GENERAL CHARACTERISTICS OF EGO FUNCTIONING

Fluidity of Ego Organization

Just as particular ego functions in psychotic children reflect

developmental deviation, so too, do overall patterns of ego functioning manifest the distorting effects of deviant developmental processes. Ekstein and Wallerstein (1954) discussed the unpredictable fluctuations in ego states commonly observed in borderline and psychotic children. They related these alternations to the coexistence of multiple ego organizations which include both psychotic and neurotic forms of defense and relationship. For example, the neurotic defenses of a psychotic child playing or conversing at an age appropriate level may suddenly, in the face of the slightest stress, crumble and give way to archaic primary process thinking and psychotic mechanisms. According to Ekstein and Wallerstein, it is likely that the child's ego is "characterized by a specific vulnerability or hypersensitivity in response to both inner and outer stimuli" (p. 349).

From observations on the psychotherapy of borderline and psychotic children, Ekstein and Wallerstein postulated three possible determinants of the fluctuations in ego states--shifts in the transference, shifts that occur autistically, and shifts in response to changing introjects not yet expressed in the therapeutic setting. Shifts in the transference may be preceded by either of two events. The first includes the therapist's inadvertent rebuke and/or failure to comprehend the child's message. Both technical errors effect a loss of contact and of secondary process thinking which can be regained through the therapist's expression of sympathy and understanding. The child's shift conveys his attempt to master a conflict despite his inability to do so. Intrapsychically,

his overwhelming panic in response to his transference reaction evokes a defensive psychotic state which removes the painful stimulus from awareness. Under the dominance of primary process thinking, the ego offers safety through mechanisms of disguise, distortion and fantasy displacement. Significantly, the child does not sever contact with the therapist but rather invites him to participate in his fantasies and primary process productions. Comparing the child's preoccupation immediately preceding his regression with the material expressed within the regression reveals similar content reflected on the two different levels of ego organization. Fantasies of a pronounced oral character typify the regression and express fears of separation, abandonment and bodily disintegration, themes of primitive rage and devouring giants, and distortions of body image.

A second stimulus for a transference shift can be the therapist's granting of permission or gratification.⁴ In response to a benevolent transference, the child may experience a flood of "powerful infantile wishes and impulses, ordinarily refused recognition by the ego" (Ekstein & Wallerstein, 1954, p. 554), which then gain access to consciousness and openly seek gratification.

Regarding fluctuations which occur autistically, no visible connection to the therapeutic process or other external factors can be discerned. They seem to arise from obscure and unob-

⁴Cf. with a similar point made by Redl (1951) discussed on p. 138.

servable phenomena within the child.

The third possible determinant of fluid ego organization in the borderline or psychotic child, is the impairment of the introjection process and/or the introjection of parental figures which are unstable and unreliable (Ekstein, 1955). The child will not express certain parental introjects within the transference until the therapeutic process has permitted him to introject the parallel aspects of the parental representation in the therapist. Nonetheless, these introjects may stimulate regression by leaving the child without a stable, internal point of reference upon which he can rely in times of stress and perplexity.

Ekstein and Wallerstein (1954) questioned the extent to which the borderline or psychotic children can control their ego fluctuations. The authors postulated an "ego mechanism of control" whose efficiency ranges from relative control, to occasional or area-specific control, to almost total loss of control. The degree of control the ego can exert over shifting states is a function of its structure and of the relationship between its developmental stages. In the authors' borderline and psychotic patients, the "ego mechanism of control" functioned unreliably. The connections between co-existing ego levels appeared tenuous and easily disrupted, such that the child's ability to willfully shift back and forth was impaired.

Ekstein and Wallerstein (1956) outlined technical modifications and problems of interpretation which arose in relation to the imma-

ture and fluid ego functioning of borderline and psychotic children. Interpretations which address more mature ego achievements and are typically used with neurotic children would precipitate panic, disruption of contact, and psychotic regression in the borderline and psychotic children. Therefore, the major therapeutic technique became to direct interpretations to the shifting levels of ego organization by employing the dominant mode of primary or secondary process thinking. Using "metaphoric interpretation," Ekstein and Wallerstein interpreted the metaphoric and symbolic levels of the psychotic behavior within a regression. By understanding the affective content and psychotic context of the child's terrifying fantasy, they aimed to maintain contact with him and to undo the merging of thought and action in his magical thinking. The authors proposed that working with the part of the ego that is intact gradually builds higher levels of ego functioning. While metaphoric interpretation temporarily accepts the child's distorted reality testing, it remains anchored in the secondary process world. Its repeated usage can thus lead to an increase in secondary process thinking in the child. In addition, primitive transferences within the regression form the foundation for more mature identifications. Then, as regressive tendencies diminish and neurotic functioning stabilizes, therapeutic work can gradually proceed to the more advanced level of insight-oriented interpretation.

Variability of Ego Functioning

Together with the overall fluidity of ego organization, an unusual degree of variability within and between ego functions typifies the psychotic child. Cain (1969) recognized this extreme variability in his examination of "strikingly advanced, seemingly 'isolated' abilities" in some young psychotic children. These abilities which would be considered remarkable even in an intact child, stand out in contrast to the psychotic child's otherwise primitive level of functioning. Expressive of ego deviation, they are "based primarily on a lack of development and grossly distorted development rather than upon major libidinal, ego, and superego regressions from more advanced stages and structures" (p. 137).

Cain's sample consisted of ten children, ages $3\frac{1}{2}$ to 10, all inpatients at a children's psychiatric hospital and all diagnosed autistic or symbiotic psychotic. The individual or clusters of special abilities displayed by the children ranged widely and included capacities in fine and gross motor coordination, visual and auditory memory, sensory functioning, vocabulary, reading, language usage and articulation, musical and graphic arts, mechanics and mathematics, and others.

Cain attempted to understand the simultaneous development of profound deficits and fragments of advanced functioning. First, he stressed that the "isolated" abilities are not "unidimensional phenomena" but are, rather, highly dependent on the intactness of numerous fundamental ego functions.

The skills...typically involve a host of competent abilities or ego functions and their smooth invisible synthesis...essential to the performance of many of these special abilities is the at least transient adequacy of such basic functions as reality testing, maintenance of ego boundaries, delay of gratification, focused attention, modulation of impulse and affect, cathexis and adequate perception of various aspects of the external world, orientation in time and space, and more (Cain, 1969, p. 141).

Cain raised but did not answer the question of how these supposedly warped and arrested ego functions can perform so effectively in certain restricted realms.

Second, Cain suggested that special precocious abilities may rest on psychic foundations that are intrinsically different from those typically present. In this connection, he cited the findings of Bergman and Escalona (1949) of wide individual differences of both deficiency and precocity in sensory acuity and reactivity.

Third, Cain postulated the possible compensatory function of overdeveloped skills. Sheerer et al. (1945) similarly proposed that an impairment in one ability stimulates the excessive use of others as coping mechanisms. Because hypertrophied abilities can adaptively channel innate endowments but cannot integrate overall functioning, the special abilities develop in isolation amidst severe deficits.

In raising a fourth consideration, Cain criticized Bender's neglect of environmental factors and her assumption that precocious and retarded functioning are biologically determined by atypical maturational patterns. Cain argued that, regardless of origin, the precocious development of any ego function may be met by "reward-

ing" but nonetheless distorting environmental reactions. These reinforcements often press the function toward repetitive, stereotyped performances which become hypercathected and devoid of intrinsic meaning. In the context of their already deviant relation to less developed ego structures, the unintegrated and seeming encapsulated nature of special abilities is intensified by external "rewards."

Kanner and Eisenberg (1955) attributed special, overdeveloped capacities to the psychopathology of parents who cram massive doses of irrelevant material into the autistic child who then seeks approval with "parrot-like, mechanically accurate" repetition. In Cain's final observations, he suggested that the more typical family pattern is for both child and parents to seize upon an innocuous facet of the child's behavior in order to bypass his typically charged, unpredictable and panicky responses to interactions. Soon, all family members seek refuge in this relatively safe haven of mutual defensive value.

Exploring the defensive functions of special abilities further, Cain pointed to the psychotic child's special need for omnipotence and protection from the outer world.

Often the performance of these special abilities represents a retreat into a defensive bastion... Psychotic children often seem to retreat to a psychic island where they enormously concentrate the ordinarily more widely distributed human need to maintain an illusion of at least a small pocket of control, competence and mastery over their experienced environment (Cain, 1969, p. 146).

Their special abilities are protected from environmental intrusion in that they are typically passive rather than active and directed toward

impersonal objects and symbols rather than people.

In summary, Cain believed that the ultimate explanation for precocious development of special "isolated" abilities in young psychotic children must take into consideration the context of their severely disturbed integrative functions and interpersonal relationships. It must examine variables such as atypical psychic foundations, unique sensory capacities, motivational and defensive needs, strong environmental reinforcements, and narrowing of efforts toward mastering "islands of relative invulnerability."

Redl (1951) pointed out that the variable functioning of psychotic children is typically attributed to "ego disturbances" and to the weak or non-functional sectors of the ego. In agreement with Cain, he observed that a wide variety of disturbances arise from the overfunctioning of the ego in certain spheres, and he proposed the term "ego hypertrophy" to denote this clinical phenomenon. Illustrating his point, Redl cited the example of children with superego disturbances, in whom skills of appraising their environment hypertrophy in the service of delinquent enterprises. In further agreement with Cain, Redl maintained that not all deviations represent actual "ego disturbances" with the associated implication of poor reality adaptation. He advocated the need for specific descriptions of symptomatology and causality to differentiate between over- versus underdeveloped capacities and between maladaptive versus benign or advantageous deviations.

In support of his arguments, Redl defined four distinct types

of ego activity with considerable specificity regarding underlying structures and external variables. Describing the "inability to cope with frustration aggression," he distinguished between the ego which can remain intact under the general force of impulses but cannot cope specifically with "frustration aggression." In the latter instance, the child reacts with total loss of control when confronted with the slightest frustration. Redl suggested that the ability to cope with frustration-produced aggression might constitute a separate function of the ego and, by itself, be impaired while other areas of ego functioning operate effectively.

Citing "the loss of ego control through group intoxication," Redl noted that, in the context of certain group atmospheres, some children undergo total loss of ego control over functions that may otherwise remain intact. A child may behave in line with expectations until the "group mood," for example, of hilarity, reaches a certain level at which point his reasonable behavior disintegrates. Redl introduced the term of the "group psychological melting point" of ego functions and suggested that situational variables, in addition to particular functions, should be considered in relation to ego strength and weakness.

In connection with processes of sublimation and socialization, Redl called attention to the child's "apperception of the inherent structure of situations and things." Comprising this function are the ways in which the child utilizes the given features of a situation in the face of a sudden onrush of impulses. At that moment,

cognitive signals, which allow for more or less controlled drive expression, are called into play. According to Redl, the progressive differentiation of ego functioning increases the potential for perceiving those contextual features which allow for more appropriate expression of impulses.

The fourth ego function presented by Redl is the capacity to "remain reasonable under the impact of unexpected change." Criticizing the common, narrow definition of "ego control" -- the ego's ability to impose reality limitations on a resistant id -- Redl instead discussed the ego's ability to impose limitations when reality is unexpectedly granting. For example, ego control may suffer when reality increases freedom or sets no limits. A child who is capable of abiding by external restrictions may not be able to substitute internal demands when external limits are revoked. Another possibility is that the child may partially regress to a state of exaggerated dependency when granted that which he needs but has been deprived of. After treatment lowers his defenses against accepting need satisfaction, he may lack the ego capacities necessary for dealing with the therapist's affectionate and giving attitudes. He may respond to these with excessive demands for love, permissiveness, and total possession of the therapist.

To sum up, the four highly specific forms of ego dysfunction elaborated by Redl, the "inability to cope with frustration aggression," the "loss of ego control through group intoxication," the "limited apperception of inherent structures of things," and the

inability to "remain reasonable under the impact of unexpected change" --can help to account for the wide variability of ego functioning characteristic of psychotic children.

PSYCHOANALYTIC FORMULATIONS

The investigators whose works are reviewed below share a psychoanalytic orientation to the psychopathology and treatment of childhood psychosis consistent with this author's theoretical approach. Essential to their formulations is a model of normal development in which certain critical experiences in the early mother-child relationship are prerequisites for the development for the "normal" object relations. These, in turn, provide the necessary foundation and ongoing context for the progressive differentiation and integration of the ego. In the psychotic child, deviant processes in early object relations promote atypical developmental patterns which interfere with the sequential unfolding and harmonious synchrony of ego functions. Thus, developmental arrest, distortions and/or failures produce gross disruptions of ego functioning. The various psychoanalytic approaches to treatment apply a variety of methods toward the common goal of reinstating ego development in the service of improved adaptation and functioning.

Psychodynamic Theories

Regarding etiology, the large group of psychoanalytic writers includes those who disregard the question of constitutional predisposition, those who acknowledge innate deficiencies without explor-

ing them, and those--the interactional theorists--who emphasize the combined influences of both environmental and organic factors, examining the latter to varying degrees.

Geleerd (1946), who falls within the first group of authors, and Maenchen (1953) and Kaufman et al. (1959, 1963), who fall within the second, present purely psychodynamic explanations of childhood psychosis. The increasing elaborateness of their three theories seems to parallel the historical development of ego psychology and the increasing recognition of the relationship between ego disturbances and childhood psychosis.

Geleerd (1946) described ten psychotic children, seven of whom were 6 to 13 years old and in treatment, and three of whom were adolescents diagnosed schizophrenic. She likened their extreme emotional and behavioral disorders to the feeling and reaction patterns of children under 3 years of age and believed their disturbance is derived from early disruptions of ego development. According to Geleerd, the failure to establish object constancy accounts for the difference between normal or neurotic and psychotic development. The very young infant flourishes in the mother's presence but soon discovers her capacity to frustrate and disappoint him. In normal development, the mother's warm and loving attitudes compensate for the infant's experience of her "failures." He can erect a stable internal image of the loving mother which he uses to comfort himself in her absence. While negative reactions, such as temper tantrums, eating disturbances, and the breakdown of toilet habits, can occur in normal development, their

intensified frequency, persistence, or violent nature constitute pathological manifestations. In psychosis, the failure to adequately internalize the maternal representation interferes with ego and superego formation. Fixated at an early level of object relations, the psychotic child cannot tolerate separation without breaking away from reality through withdrawal into fantasies of omnipotence or through temper tantrums with paranoid ideation. His inability to relinquish his belief in omnipotence, his loss of contact with reality when alone, and his inability to reason and foresee consequences all reflect his impaired reality functions. His lack of impulse control and of identification with the victims of his aggression indicate additional failures in the functions of drive control and object relations. In fact, all phases of development show some deviations from normal ego functioning.

Geleerd illustrated disturbances of ego functions in childhood psychosis by describing their behavioral manifestations. The psychotic children she studied substituted excessive interest in animals and inanimate objects for interest in human playmates. They depended on one adult exclusively and could not tolerate even his temporary absence. Their experiences did not lead to increased reality testing, and self-endangerment was common, particularly during outbursts of rage. Temper tantrums in response to frustration were marked by total loss of control, loss of contact with reality, and a sense of persecution. Geleerd observed that firm handling of the children's violence increased paranoid feelings; on the other hand,

the loving, soothing attitude of the familiar affectionate adult enabled the children to regain control. In the case discussion in Chapter VI, this author's interventions argue against Geleerd's suggestion that reassurance alone can suffice to calm the psychotic child in the throes of a tantrum. They demonstrate the need, at least in certain instances, for physical restraint to ensure the safety of the child and therapist and to assure the child that both can survive his destructive rage.

Maenchen (1953) addressed the difficulty of differential diagnosis between psychosis and psychotic-like illnesses in young children and proposed that "the core of all these illnesses is an arrest of ego development" (p. 263). Citing Hartmann's et al. (1946) discussion of the role of frustration in ego development, she stressed the critical dimensions of the nature, timing, and mode of deprivation. She concluded that while "deprivations...are not in themselves decisive (in early ego disturbances)...They become decisive...in a certain specific relationship between mother and child" (Maenchen, 1953, p. 267), wherein the mother displays the "general attitude of emotional withdrawal." The mother neither expends sufficient energy on the child nor offers him ongoing support. As a result, she fails to provide an adequate object for identification, and several ensuing negative consequences contribute to developmental arrest. First, nonautonomous ego functions are distorted by a process of turning aggression inward.

In an almost objectless world, the instinctual energy finds no other object but the self. The primary narcissism increases. But at the same time, that amount of primary aggression which cannot be discharged into aimless fits of rage is turned back on the self.... We might...assume that internalized aggression takes as its object a nonautonomous ego function and thus handicaps the process of synthesis (Maenchen, 1953, pp. 267-268).

Second, libido also remains invested in the self, thus increasing narcissism and fixating psychosexual development at the anal stage. The autonomous function of speech, which emerges during the anal stage, becomes retarded and thereby hinders reality testing, which further handicaps speech and creates a vicious cycle of ego arrest. Third, secondary aggression in response to early deprivation promotes an antagonistic attitude in the child who therefore stages a revengeful "sit-down strike" and refuses to grow up.

While Geleerd offered no therapeutic guidelines, Maenchen suggested that treatment should help the mother and child establish a relationship that facilitates the resumption of ego development. The therapist should mobilize the mother's anxiety and love for the child in order to increase her awareness of his past and present needs.

In a study of childhood schizophrenia, Kaufman et al. (1959) proceeded further than Maenchen in describing the pathogenic influences of parental psychopathology. His study of 82 schizophrenic children, ranging from latency age to 14, included 38 inpatients and their parents, and 42 outpatients and their parents who were also in treatment one or more times per week. In all cases, "severe

ego impairment" arose from emotional disturbances in the parent-child relationship. From the vantage point of a family-systems approach, Kaufman saw both parents as involved in the pathogenic processes, though the degree of each parent's manifest disturbance varied at any given time. His findings suggested that

regardless of external behavior which may appear relatively adequate, these parents have a core ego disturbance associated with primitive destructive wishes and fears at the oral level of development(They) convey the concept that they would be destroyed if they permit themselves to experience their inner tensions (Kaufman et al., 1959, p. 463).

In other words, the parental personalities reflected varying kinds of defenses erected against a psychosis in which massive anxiety would overwhelm the ego to the point of collapse. According to Kaufman, a lack of differentiation between self and nonself permitted various family members to take on the pathological processes and/or their defenses for one another. Thus, unable to cope with their destructive primitive orality, the parents, early on, projected it on to the child who became schizophrenic. His embodiment of the underlying pathological process thereby maintained the family balance. The child, however, only at the oral stage of development, was ill-equipped to deal with his own primary anxiety, and the parents' inability to provide support and comfort prevented him from developing the necessary anxiety-regulating mechanisms. Significantly, a child's pathology is more likely to become fixated when it serves a pathological, dynamic need within the family system.

Kaufman noted several common features in the relationships of the parents to their schizophrenic children. Because of their own need to project their problems onto the child, they shut out or grossly distorted their perception of his needs and failed to recognize his expressions of individuality. By disputing his perceptions and substituting distortions of reality, they actively impaired his reality testing. They lacked any notion of his being human and conveyed this to him. Because they required his illness to maintain their own psychic balance, they felt threatened by his more normal behavior or progress in treatment and sometimes tried to undermine it.

Kaufman classified the parents of psychotic children on the basis of their overt symptom complex and secondary defenses. He allowed for mixed types and overlaps but designated, in decreasing order of severity, the psychotic, pseudodelinquent, pseudosomatic, and pseudoneurotic groups of parents. He suggested that the treatment of parents is most effective when geared to their particular defensive structure.

In a second study, Kaufman et al. (1963) also classified schizophrenic children according to the severity of their overt symptomatology, which, in each case, expressed the same underlying cause and adaptive process as the parents'. In a group of 43 children, ages 4 to 15 at the start of inpatient or outpatient treatment, he observed a large variety of coexisting schizophrenic and nonschizophrenic or neurotic symptoms. Clusters of symptoms pointed, in decreasing order of severity, to the five categories of schizophrenic children with minimal ego development, fragmented ego development, and pseudodelinquent, pseudo-

somatic and pseudoneurotic schizophrenia. The schizophrenic symptoms included disturbances in reality testing and thought processes, and the excessive use of motor, tactile, kinesthetic and sensory modalities in contacts with the environment. Like Geleerd, Kaufman noted that the schizophrenic features included elements of normal, early personality development. They expressed "the developmental level at which the pathology is manifest, as well as the degree and extent of the illness" (Kaufman et al., 1959, p. 462).

Kaufman found that the symptomatology of childhood schizophrenia clustered around three general areas, namely, the management and manifestations of anxiety, the relation to objects, and the overlay of defensive patterns. In response to fears of annihilation, engulfment or total destruction, the children showed isolation, withdrawal, stereotyped responsivity, and minimal affect. These symptoms aimed to reduce external interaction and internal reactions and represented a pathological attempt to bind potentially overwhelming anxiety. The primitive level of personality development also resulted in maladaptive ambivalence toward objects. Desiring closeness but fearing its potential oral destructiveness, the schizophrenic children responded to others with avoidance and minimal affect or with explosive outbursts of rage. Their defensive patterns included nonpsychotic strategies and varied considerably between children in the extent of overlay masking psychotic processes.

Based on his studies, Kaufman believed in the schizophrenic child's potential for growth and adequate reality orientation. He

maintained that the effectiveness of treatment ranges from preventing further deterioration to actualizing this latent potential. The ultimate success of treatment, however, depends on multiple additional factors including the personality organization of the child and parent, the dynamic balance of the family, the positive strengths in the family and community, and the skill and techniques of the therapist. Kaufman advocated a comprehensive treatment approach that utilizes his classification system to address both the manifest symptoms and underlying schizophrenic pathology in the child.

Interactional Theories

The interactional theories of etiology discussed above attribute varying degrees of causal significance to a range of possible organic and environmental factors. Like the purely psychodynamic theorists, however, advocates of interactional etiology concur in defining childhood psychosis in terms of early ego pathology which develops within the context of disturbed object relationships.

Ruttenberg (1971) postulated a continuum of combinations of intrinsic and extrinsic factors and presented a structural and developmental conceptualization of autism. He contrasted the developmental positions and deviations of autistic children with the stages of normal infant development. Summarizing his findings, Ruttenberg (1971) found that "the autistic child was largely arrested and fixated at, or had regressed to, a very early level of relationship, ego, and psychosexual functioning. He did not follow the normal pattern of

development as we understand it psychoanalytically, but rather had failed to develop object relations, instinctual drive modulation, reaction formation, and other normal defenses" (p. 148).

Ruttenberg described the uneven developmental arrest of autism, locating it in the "pre-oral, pre-zonal, and part-object" phase. Comparing various developmental lines, he noted the typical scatter and variation within and between autistic children. He found that while some autonomous and executive ego functions, such as locomotion, appeared relatively well-developed, particularly if they served defensive purposes, other nonautonomous functions reflected an infantile level of development. Though body image was fragmented and object relations arrested at the part-object stage, the presence of certain higher cognitive functions suggested that some degree of self/nonself differentiation had taken place. Ruttenberg therefore concluded that ego functioning in the autistic child is not simply immature but also fragmented and unintegrated.

Ruttenberg inferred several therapeutic principles from his conceptual model of autism. Based on the finding that the "resumption of development...did not take place unless some degree of object relationship had preceded it" (Ruttenberg, 1971, pp. 151-152), he proposed that the overriding purpose of psychotherapy is to stimulate the development of object relations via the emotional availability of the therapist. By means of the therapeutic relationship, self/nonself differentiation takes place and psychosexual and ego development is reactivated. Early in treatment, expectations of the autis-

tic child should be commensurate with his preverbal, sensori-motor mode of functioning.

Given that the autistic child shuts out the object except for need-satisfaction, the first step in treatment must be to establish contact in nonintrusive ways, utilizing islands of healthy ego functioning. By tuning out, the autistic child has experienced self-imposed perceptual deprivation. Therefore, tactile, rhythmic, vocal and kinesthetic modes of sensory contact can all be employed with him as the therapist reflects his affects and behavior and labels his activities, body parts, and objects of interest. The second step in treatment should be to introduce learning tasks, such as toys and puzzles, similar to those a mother would provide at home. Special therapies in music, art, body mastery, speech and communication, and cognitive skills can be geared to the child's level and supplemented to encourage active mastery in place of passive gratification. When the child has derived sufficient inner strength from the relationship to tolerate frustration, limits can gradually be set. Ruttenberg observed that as the autistic child begins to emerge from his self-enclosed orbit, his need for sameness is expressed again in plateaus of defensive, repetitive and stereotyped behavior. To reinstate progress, the therapist should intervene "in that dimension of behavior that the child is using to maintain sameness" (Ruttenberg, 1971, pp. 175-176).

In contrast with Ruttenberg's continuum of intrinsic and extrinsic factors, other interactional theories of ego pathology focus

more on one or the other dimension. While acknowledging poor heredity as an important etiological factor, Rank (1949, 1955; & Macnaughton, 1950) considered maternal and paternal pathology and traumatic life events the major pathogenic influences in "atypical development." Despite an etiological view different from Ruttenberg's, Rank also concluded that arrest at a primitive, infantile level results in "ego fragmentation," with various achievements coexisting on different developmental levels. She attributed the lack of ego integration to an unfavorable emotional climate which precludes the formation of a "central core built from the introjection of a stable maternal image" (Rank & Macnaughton, 1950, p. 56). The ego that recognizes only part-objects cannot establish self-differentiation, adequate reality testing, or the synthetic function necessary for ego integration. The resulting "scattered" development, in the "atypical child," reveals the characteristic discrepancies between single, well-developed autonomous functions and the general context of ego development which is "scarcely beyond the undifferentiated phase" (Rank & Macnaughton, 1950, p. 56).

Similar to Ruttenberg's treatment model, Rank & Macnaughton's (1950) basic treatment approach was to undo developmental arrest by enabling the psychotic child to form object relations. They too proposed accomplishing this goal by means of a relationship with a maternal substitute who creates conditions more favorable for growth than those of the original family setting. As also proposed by Ruttenberg, the child is accepted on his given level of functioning. His contact with the outside world is facilitated through sensory

stimulation. The therapist initially serves as a partial ego by taking over executant functions, until the child gradually becomes differentiated. Toward this end, he explores reality through the person of the therapist and gains mastery through the use of games and toys.

Using a threefold treatment approach, Rank (1949) proposed two adjuncts to the child's individual therapy. First, she recommended individual therapy for the mother, and, like Maenchen, stressed helping the mother to meet the child's needs. Second, she advocated the child's participation in a nursery setting which likewise accepts his present level of development and gradually introduces demands for greater instinctual control.

Mahler (1968b) specifically acknowledged her use of modern psychoanalytic ego psychology in formulating her theory of childhood psychosis. Unlike Rank, she (Mahler, 1952, 1958, 1968a, 1968b, Mahler & Furur, 1963, 1972) not only recognized the possibility of constitutional vulnerability but also postulated an innate defect which predisposes the child to psychosis and participates in the pathogenic mother-child relationship. As discussed above (Mahler, 1968a), an inborn or early acquired "defective tension-regulating apparatus" heightens the infant's potential for anxiety and organismic distress and renders him incapable of utilizing even adequate mothering. His resulting inability to internalize a mental representation of the mother for purposes of self-object differentiation initiates the development of autistic or symbiotic psychosis. In both syndromes, the critical determinant of psychosis is the infant's failure to pro-

gress beyond symbiosis into the separation-individuation phase. "There is a cessation of further ego development and fragmentation of the ego seems to ensue from the panic which the potentially psychotic child experiences when confronted with the task of separation-individuation" (Mahler & Furer, 1963, p. 1).

Having described the autistic and symbiotic psychoses above, the remaining task, relevant to the ego psychological approach, is to delineate the pathological features of ego development in both conditions and the prescriptions for their treatment. Mahler explained the psychotic manifestations, at the outset of treatment, in terms of "disordered development, very deep drive and ego regression or lack of development, in combination with the very primitive defense organization" (Mahler, 1968a, p. 162). In both syndromes, restitutive psychotic mechanisms replace normal defensive operations. The autistic child who cannot utilize the mother for inner and outer orientation fixates or regresses to complete nondifferentiation characterized by deanimation and dedifferentiation. The symbiotic child who is overwhelmed by separation anxiety relies on these psychotic defenses to support his withdrawal of investment from reality. Regarding object or preobject relations, the autistic child lives in the objectless world of his enveloping autistic orbit. The symbiotic psychotic child is caught between his desire for fusion and dread of re-engulfment and maintains an intensely ambivalent object tie. He alternates between withdrawal and contact which elicits catastrophic panic reactions or diffuse temper tantrums. In both psychoses, the inability to develop

a differentiated body image and the related distortion of reality testing accompany the failure of self-object differentiation. Other specific functions, such as the capacity for delay, are also impaired by the lack of object constancy. Moreover, a gross deficiency of the "integrating, synthesizing and organizing functions of the ego" results in the failure of differentiation processes and fragments overall ego functioning. Ego fragmentation becomes most apparent in the context of maturational growth, when the unevenness between maturational advances and developmental lags or arrests disrupts the expected synchronous relations between ego structures. Vulnerable to frustration, the brittle ego fragments even further in the face of continued maturational and external stress. Mahler ascribed the symptoms of the psychotic child, at any age, to the stage of personality structure present during his initial psychotic disorganization. "Differences in the symptomatology of childhood psychosis at different ages...are due to the maturational level of drive, ego and superego development at which the dysmaturation and disorganization are activated and a break with reality is manifested" (Mahler, 1968b, p. 232).

Of all the psychoanalytic theorists, Mahler (1968a) devised the most elaborate therapeutic approach, later replacing it with a second treatment model. Certain basic aims and methods, however, apply to both her formulations. In Mahler's view, the goals of treatment are "1) the restoration or establishment of greater body-image integrity, which should convey a better sense of entity and identity; 2) the simultaneous development of object relations; and 3) the restoration of

missing or distorted maturational and developmental ego functions" (Mahler, 1968a, p. 170). To achieve these aims, "the child must progress through the previously missed or unsatisfactory phases of development (presymbiosis, symbiosis, and separation-individuation), with the therapist serving a substitute function by providing a more readily utilizable ego" (Mahler, 1968a, p. 170).

In the first model (Mahler, 1968a), treatment takes place in a therapeutic nursery comprised of several therapist-patient pairs. While the first therapeutic endeavor with both the autistic and symbiotic child is to involve him in a "corrective symbiotic experience," the initial technique with each differs in accord with their differing developmental levels. Without head-on intrusions, the autistic child "must be gradually lured into a quasi-accidental, tangential contact with the human object" (Mahler, 1968a, p. 166). Using inanimate objects and pleasurable but distant sensory stimulation (for example, music or rhythmic activities) can facilitate contact nonintrusively. With supportive understanding, the symbiotic child is allowed to test reality at his own pace. The pressure toward separate functioning is avoided, as it will elicit panic and possibly regression and withdrawal. The autistic child cannot profit from specialized educational techniques or other forms of environmental supplements to treatment until he has begun to enter into the symbiotic relationship. The symbiotic child, on the other hand, can benefit from them as soon as his panicky responses to human contact subside. In fact, participation in diversified substitute relationships, in the context of supplemen-

tal activities, should help diminish his wish to merge with the mother and his associated fear of dissolution.

Subsequent to the establishment of the symbiotic tie, the therapist begins to encourage a "living through" of early developmental phases. He provides substitute means for the expression and beginning sublimation of corresponding developmental preoccupations. He also serves those ego functions which the child lacks but needs in order to establish a self-concept (for example, protection from excessive internal or external stimulation). While translating the child's obscure, primary process type of behaviors and communication, the therapist aids in the development of inner-outer discrimination and self-other boundaries. He sets limits, particularly on self-destructive and aggressive impulses. He prevents panic, protects the child, himself and the environment from harm, and reassures the child that all will be safe from his rage. Lastly, throughout treatment, the therapist reflects back the child's adequate responses to the surroundings, thereby reinforcing his judgment in relation to himself and the environment. With the increasing differentiation and integration of the ego, the child gradually begins to assume these critical ego functions himself.

The therapist's close alliance and work with the child's mother is mutually advantageous (Mahler, 1968a). The knowledge the therapist gains of events in the child's life facilitates his understanding of the child's behavior and productions. The mother receives guidance regarding the child's special needs, such as his need for reassurance

as to his basic worth and organismic integrity, and, if necessary, treatment for herself. She can be counselled to serve the educational function of teaching the child the basic facts and concepts which he failed to acquire at the appropriate age, such as relations in time, functions of the body, and social realities.

In Mahler's (1968a) second treatment model, she abandoned the therapeutic nursery setting because she had found that the group situation interfered with the "corrective symbiotic experience" and had exposed the child to traumatic experiences. Yet she had also found that the child tolerated the mother's presence in the therapeutic situation well. The mother helped interpret his signal communications and his reaching out to her signified progress. Thus, Mahler devised the "Tri-Partate Treatment" model, with mother, child and therapist all present in the room.

This second treatment design affords the mother even greater advantages than the first (Mahler, 1968a). She can feel gratified by the therapist's interest in her, heartened by her belief in his helpfulness to the child, and relieved by her increased understanding of the child and concomitant sense of greater control. Mahler believed that treatment extends over many years and that, in the process, development must be re-experienced with the primary love object as well as the therapist. In the tri-partate treatment situation, the mother can watch the therapist and assimilate his example over time. She can thereby be taught to create and maintain the corrective symbiotic experience and also be helped to understand her own responses to the

child.

Mahler (1968a) divided the tri-partate treatment process into an introductory phase and a phase of treatment proper. In the first part of the introductory phase, the therapist's role parallels the initial therapeutic endeavor in the first treatment model. Through his non-intrusive, soothing presence, he or she establishes some form of contact with the child which then progresses to more advanced levels. Mahler observed that the child can often relinquish a secondary autistic-like withdrawal and enter into a symbiotic relationship with the therapist rather quickly. He seeks comfort from the therapist and uses him as part-object, as though the therapist were an extension of himself. In gradual, progressive steps, the child permits the therapist to actively offer more help and accepts shared, but limited, activities. By comforting and serving as a buffer between the child and the environment, the therapist represents the "mothering principle" of the symbiotic phase. Mahler advised that, in this phase, the therapist allow for the periods of rest wherein the child temporarily withdraws into a secondary autism that has a less rigidly isolating quality than before.

In the second part of the introductory phase, the therapist uses the mother's identification with him to foster the same kind of symbiotic-like relationship between mother and child. He shows the mother practical ways to deal with the child. The child is apt to defensively split the mother and the therapist into the good and bad objects. Also, frustration is likely to precipitate setbacks in the as yet

fragile mother-child relationship. Given some degree of former maternal neglect, the mother is likely to resent assuming the restitutive symbiotic role. Nonetheless, considerable gains in the child's ego development accompany his symbiotic relationship to the mother, thereby confirming the defensive nature of his secondary autistic withdrawal. Finally, in part three of the introductory phase, the therapist draws the mother even more actively into the treatment by requesting that she discuss the sessions with the child at home. Such interchanges bring the mother and the child into a closer relationship with each other and encourage their more active participation in the treatment.

During the introductory phase, the child's behavior becomes increasingly organized and comprehensible. As his needs intensify in the symbiotic relationship, he learns to recognize them and communicate them, albeit, in "gesture language." Symptoms such as his ritualistic need for sameness and preoccupation with fetishistic objects are likely to proliferate during the process of change.

Whereas the introductory phase concerns the re-establishment of a beginning object relationship, the phase of treatment proper involves reliving and understanding the traumatic experiences which initially thwarted development. In terms of object relations, the child establishes a more differentiated, whole object and shows increased investment in objects. He displays finer discrimination between self and object and widened awareness of his environment. As a result of individuation, activities that were initially self-contained now become a means of communication with a separate person.

In treatment, the child's language proceeds from his parroting phrases heard in inanimate situations (for example, parts of television commercials) to his imitating the human object's language, and finally to his using language to express his own thoughts. The appearance of secondary process thinking and the acquisition of speech reflect his greater ego control and the beginning of symbolization.

Enhanced ego control derives, in part, from the special attention the therapist has paid to aggressive manifestations. Auto-aggressive behavior has diminished and has, in some cases, been directed outward. Change in the quality and direction of aggression has been effected by the therapist's efforts to physically shield the child, neutralize his aggression via comforting closeness, interpret his feelings, reassure him of protection, increase his libidinal investment in his body, and facilitate the development of inner-outer orientation and body boundaries. With increased ego development, more sublimated aggressive responses have become available.

Despite her elaboration of the processes and nature of change in treatment, Mahler (1968a) forecasted the following guarded prognosis: "Even with cautious, prolonged and consistent therapy, the prognosis for arresting the psychotic process and consolidating the ego is only moderately favorable" (pp. 168-169). The reasoning underlying Mahler's prognostic viewpoint was that normal development depends upon the infant's beginning to differentiate from the mother during the early developmental stage wherein ego functions are being acquired within the "mother-infant unity." "If differentiation within

this matrix, which is highly specific for promoting sound individuation, has not been achieved, the ego may remain irreparably warped, narcissistically vulnerable, unstructured, or fragmented" (Mahler, 1968a, p. 169). While the above description pertains to the case of the symbiotic psychotic child, the mother-infant matrix never existed for the autistic child to foster his growth. His underlying ego structures are therefore even more deficient. While his contact with the substitute mothering person of the therapist may promote seemingly impressive advances in development, these may be followed by "a plateau of intractibly arrested progress" (Mahler, 1968a, p. 169). Mahler concluded that the autistic and symbiotic psychotic children will be highly dependent upon the mother or mother substitute both during and after treatment, and that, despite their possible higher level functioning as a result of treatment, they will always need some degree of an anaclytic relationship to provide continual infusion of ego strength.

Weiland's (1964, 1966; & Rudnik, 1961) theory of childhood psychosis incorporated but also diverged from Mahler's formulations, thus lending different emphases to his conceptions of psychopathology and treatment. Like Mahler and others, he viewed the infant's exposure during the early critical periods to certain crucial experiences with the primary object as essential for the establishment of object relations and ego functions. In the autistic and symbiotic psychoses, these crucial experiences have been missed either because of the lack of exposure to them or because of a defense against traumatic and overwhelming experiences with primary objects (Weiland & Rudnik, 1961).

Weiland regarded the related failure to establish primary object cathexis as pathogenic primarily in its interference with the anaclytic relationship to the mother as the source of frustration and gratification. Building on Freud's (1914) comments, Weiland maintained "that the primary relationship develops anaclytic to the life instincts and that the infant first recognizes and cathects the mother because of her assumed ability to cause and relieve pain" (Weiland, 1964, p. 323). Weiland (1964) defined the absence of the anaclytic relationship operationally as the lack of appropriate "attachment behavior" "necessary to permit the subsequent orderly development of other ego functions and of appropriate libidinal organization" (p. 328). Without delineating the distorted ego functions, as Mahler did, Weiland noted that the absence of those functions involved in object relations and reality testing limits the child's use of interactions with the mother. The child is also poorly equipped to deal with the vicissitudes of libidinal development and reveals serious pathology at all stages of psychosexual development.

Elaborating on symbiotic psychopathology, Weiland (1966) argued that the separation anxiety manifested is not, as Mahler proposed, a reaction to the disturbance of the symbiotic unity but rather to other threats that are experienced in the mother's absence. The mother represents a symbol of security against anxiety evoked by needs or anticipated danger. Thus, security needs rather than symbiotic needs elicit separation anxiety. According to Weiland, concreteness and the inability to generalize from the familiar to the unknown is a hallmark of

childhood psychosis. Because the symbiotic child cannot generalize the expectation of security to new situations, excessive separation anxiety elicits intense clinging to the mother as the sole source of relief and interferes with the development of normal object relations.

Paralleling Mahler's treatment model, Weiland (1971) advocated recreating the situation of infancy in order to offer those missed developmental experiences which are necessary to foster primary object cathexis. Yet in keeping with his theory, Weiland focused exclusively on replicating the prerequisite conditions for developing attachment behavior. These prerequisites consist of the infant's total helplessness and dependence and his ability to recognize one person as the source of frustration and gratification. To establish these conditions, Weiland proposed that all gratifications be provided by a single person. Because the psychotic child has learned to gratify his needs independently and consequently has little incentive for relating to the therapist, intense needfulness and dependence must be induced. In several 30 to 45 minute daily sessions, he is forced to turn to the therapist to avoid frustration and receive all gratification. The therapist actively prevents the child from withdrawing and from gratifying himself autistically. He allows gratification only when and if the child requests it. Similarly, he offers the child highly desirable activities but grants them only when the child asks for them directly.

Weiland intended that this "frustration-gratification procedure" induce the child to cathect human beings and foster improved interpersonal relationships. He found, however, that in some children, the

failure to undergo critical early experiences had precluded the development of object relations beyond a certain point (Weiland, 1964; Weiland & Rudnik, 1961). Most of the children he studied sought only need-satisfaction from the therapist, without ever showing interest in him as a person. They developed stereotyped patterns of seeking activities or objects but not the person. Though they were able to engage in interactive play if invited to do so, they were often content to play alone. Their "pseudo-object relatedness" lacked a full awareness of the person. In Mahler's terms, they related to him only as a part-object, as an extension of the self. Though their former clinginess and frantic urgency diminished in treatment, their interactions remained on the level of the preschooler's parallel play or of the normal infant's symbiotic relationship.

In trying to understand the failure of his treatment to accomplish more than facilitate a "very tentative object relationship," Weiland (1964; Weiland & Rudnik, 1961) considered whether treatment had taught the children a new means to satisfy their needs without necessitating their recognition of the therapist as separate and without, therefore, broadening the ego. Weiland also entertained the possibility of some limiting inherent constitutional or experiential factor. Regarding the latter, he postulated that the child had had "sufficient experiences to allow the development of appropriate behavior with adults but not sufficient to make it necessary, desirable, and meaningful behavior" (Weiland, 1964, p. 325). In addition, Weiland wondered whether those children who fixated at the level

of "pseudo-object relations" were, even before treatment, unaware of people as a separate class of objects and had therefore not developed active defenses against relatedness. If that were the case, their responses to the "corrective object relation" with the therapist could be understood as being similar to a simple conditioned response.

This author would argue that Weiland did not test the limits of the psychotic child's potential or of possible therapeutic effectiveness. First, Weiland's methods may have exposed the psychotic child to a detrimental degree of frustration. In the rearing situation of infancy Weiland presumed to recreate, the mother does not repeatedly limit and frustrate the child in a calculated way to promote specific behaviors. Rather, she selectively imposes restrictions on behaviors that flout reality considerations and therefore require limitation. A related criticism is that Weiland's therapeutic approach disregards the given level of functioning of the psychotic child who cannot, a priori, request need-satisfaction or relinquish his need for withdrawal. To require that he ask for gratification or to prevent him from withdrawing is to attack his defenses and attempt to bypass his difficulties without first accepting them empathically. Ekstein and Wallerstein, Mahler, Rutterberg and Rank all stressed the need to meet the psychotic child on whatever level of functioning he presents. Mahler specifically advised that the therapist permit temporary retreats into secondary autism until the psychotic child can tolerate sustained contact. Weiland's disallowing withdrawal may deprive the child of the temporary safety he needs in order to resume contact with the thera-

pist.

Further, by assigning the therapist the limited role of gratifying and frustrating needs, Weiland neglected the many other critical functions which the mother must perform to promote early ego development. While the primary relationship may develop "anaclytic to the life instincts," it entails much more. Perhaps the therapist's serving the exclusive role Weiland defined accounts for his finding that the children related to the therapist only as a part-object and need-satisfier rather than as a total person. It seems that the therapist similarly related only to specific parts of the child and not to his total person. In contrast to Weiland, Mahler set forth a wide spectrum of functions performed by the mother. Her loving, soothing attitudes lead the child into the symbiotic unity. He seeks her out for comfort and reassurance. As she invests him with love, he learns to love himself. As an auxiliary ego, she serves the functions he will later fulfill independently. She orients him to his inner and outer realities and stimulates the development of body-image and boundaries, thus facilitating self-object differentiation and reality testing. Until he develops self-regulating capacities, she protects him from over- or understimulation and harm. She labels events and interprets his behavior and communication, thereby promoting secondary thought processes. In response to Weiland, this author would add that she not only frustrates him but helps him develop coping mechanisms, controls and the capacity for delay and anticipation.

Weiland's disregard for all these and many other aspects of ego

development may help explain why his treatment approach failed to broaden ego capacities. In addition, it appeared that he aimed to induce specific behaviors rather than promote developmental processes. He thus achieved limited modifications of behavior that resembled conditioned responses and lacked meaningful desire for the human object.

Unlike Weiland who circumvented etiological problems, Bergman and Escalona (1949) detailed observational findings on atypical sensory sensitivities in young children. In fact, they delved much further than Mahler in investigating and defining constitutional factors in the etiology of childhood psychosis. Significantly, they found that unusual sensitivities appeared only in children who were quite disturbed and exhibited isolation, low frustration tolerance, extreme negativism, and outbursts of rage and destructiveness. Peculiar preoccupations and multiple fears dominated these children's thinking. Their "spot-like brilliancy and great unevenness in intellectual development" reflected deviation from developmental norms (Bergman & Escalona, 1949, p. 348).

Given these probable psychotic indications, Bergman and Escalona (1949) examined the possible relationships between unusual sensitivities and psychosis. Speculating on the malformation of the ego, they proposed that the infant is protected from overwhelming stimulation by a constitutional protective barrier and by the mother who both provides and limits stimulation. The proper "dosage" of stimulation creates favorable conditions for the ego to gradually become organized and capable of assuming necessary regulating functions. By con-

trast, excessive or insufficient stimulation precludes optimal ego development. When either the organic or maternal factor fails to provide adequate protection from sensory impingement, a precocious ego organization emerges to provide the needed protection. The premature ego "would be weak, liable to break down under stress, and unable to achieve adequate organization later on" (Bergman & Escalona, 1949, p. 350). With too much protection, ego formation is delayed. While suggesting that more evidence is needed to support their hypotheses, Bergman and Escalona found traces of the premature emergence of ego functions, for example, of early discriminatory behavior and apprehensiveness, which preceded their actual breakdown at a later point. Instances of loss of function, in the psychotic children, included the disappearance of language, following a normal or even precocious beginning, and the failure to master traumatic events.

Weil (1953a, 1953b, 1956, 1973) paid more attention than did Bergman and Escalona to the nature of ego deficits in grossly deviant children, whom she, in fact, labeled as children with "severe disturbances of ego development." Like Bergman and Escalona, she examined their biological substratum but only by reviewing their histories of deviant constitutional factors at birth. Rather than study any specific area of deficit in depth, she simply reported abnormalities in physiology and neurology, behavioral and maturational patterning, drive endowment and impulse tendencies, sensory sensitivity and tonicity, and autostimulation (Weil, 1956). Unlike Bergman and Escalona, she attended to the hereditary basis for psychosis in the

family history and to parental rearing which she did not consider severely pathological (Weil, 1953b). In light of unusual biological deviations, Weil (1973) suggested that these probably intensified rearing difficulties and prevented the parents from minimizing the vulnerability and modifying pathological functioning.

Without detailing the parental functions in infant object relations, Weil agreed with Mahler that ego distortions arise from the early absence of a gratifying symbiosis. The associated ambivalence toward the object and faulty trust prevent the internalization of a stable, good object. While ego development in some children comes to a standstill or regresses, in others it progresses but at an inadequate rate that has distorting effects. Due to such delays, usual phenomena can appear but with inappropriate timing, atypical intensity, or an unusual constellation of ego functions.

According to Weil (1953b), thwarted ego development reveals an overall lack of structure and focus in the expression of anxiety, aggression, outgoingness and general activity. More specific ego disturbances in the prelatency child include the impairment of reality testing, object relations, defensive operations, drive development, and the synthetic function. Because the sense of reality is weak, adaptation remains deficient. The transition from the pleasure to the reality principle has not been achieved and the belief in omnipotence is as yet retained. Magical thinking still prevails and wishful fantasy can override reality testing. Primary narcissism continues to preclude self-object differentiation and the cathexis of

objects, and imitative identification substitutes for true object relations. Relationships are marked by inadequate discrimination, rageful reactions to frustration, demands for immediate gratification, and antagonism alternating with anxious clinging. The primitive defense mechanisms of projection, introjection, and denial are primarily used and reaction formations may be absent or excessive. Given faulty defenses, the ego lacks sufficient control over drives such that the expression of diffuse aggression can reach dangerous proportions. Because development has typically not reached the phallic phase, oral and anal drives predominate. Extremes in behavior and affect, such as lack of control versus overcontrol, sloppiness versus meticulousness, and love versus hate, reflect the lack of synthetic function. No conflict is experienced in relation to such opposites and no attempt is made to reconcile them.

Weil (1956) noted that the ego deviations described did not preclude neurotic symptom formation. She found that some ego and superego development permitted the emergence and neurotic elaboration of unconscious conflicts. A negative correlation existed between the degree of ego distortion and the distinctiveness of neurotic symptomatology; the less severe the ego distortion, the more distinct the symptoms. Weil (1953a, 1953b) observed that the ego disturbances were reflected in three basic areas of presenting symptoms, namely, deficient social-emotional adaptation, management problems and neurotic manifestations. The latter, expressive of heightened tension or anxiety, included restlessness, autoerotic habits, sleep and concen-

tration difficulties, phobias, compulsive habits and rituals, obsessive and hypochondriacal preoccupations, and excessive fears.

Weil's (1973) discussion of treatment entailed an outline of basic principles rather than a set of technical guidelines. First, she set forth the indications for "therapeutic education," a process of ego strengthening in preparation for later analysis which she regards as potentially beneficial for all children at the appropriate time.

I usually think of preliminary educational help first when I am dealing with younger children, in whom ego deficiencies and structural imbalances are in the foreground and whose clinical picture is related to early adaptive failures (Winnicott, 1958). Obviously, with the older child whose development went predominantly out of kilter in relation to situations experienced in the verbal period, and whose clinical picture is dominated by internalized conflicts and neurotic symptomatology (Anna Freud, 1965b). I believe that analysis is indicated (Weil, 1973, p. 298-299).

The child with less structure formation, for whom Weil recommends educational therapeutic help, shows pathological manifestations of aggression and anxiety. He may be underimpulsive, underactive and mildly related or alternately express aggression in an unfocused, nonobject-directed way. Similarly, his anxiety is diffuse and unfocused, rather than symbolically displaced in organized symptomatology.

Second, Weil proposed a method for diagnosis and treatment planning that conceptualizes psychopathology metapsychologically, in terms for four inter- and intrasystemic imbalances. These sources of psychic disequilibrium reflect disturbances of inter-

grative functioning and must be assessed during the diagnostic and treatment planning procedures. An imbalance between the ego and drives results from "variations in drive endowment and/or variations in the ego" (Weil, 1973, pp. 288-289). Imbalances within the ego derive from the discrepant growth rates of the autonomous ego apparatus and the entire ego structure or from the different developmental rates of ego functions. When the aggressive drive prevails, the imbalance between libido and aggression interferes with the mastery of drive tensions. Lastly, if aggression has not been channelled into personality traits, negative forms of aggression predominate over more constructive ones, producing an imbalance between hostile and nonhostile aggression. In treatment planning, the ways in which the child's interaction with the environment contributed to these imbalances must also be evaluated.

Finally, Weil proposed that the aim of "educational therapeutic methods" is to establish a more optimal balance of internal forces, to induce growth in important functions, and to foster ego development and integration. A situation of emotional warmth and stimulation can facilitate the child's ego development "by offering a good introject, by toning down his difficulty in delaying, by helping him relinquish omnipotence, by being available, unangrily limiting, distracting, avoiding targets of negativism and redirecting aggressive strivings into the growing skills toward mastery, hence, toward neutralization" (Weil, 1973, pp. 295-296).

Weil believed that educational measures can offer the growth-

promoting experiences which should have been provided earlier and considered prelatency the optimal period for instituting such measures. Nonetheless, she was realistic regarding the impossibility of predicting outcome and reported that while some ego-deviant children developed clear psychosis, most improved but attained only superficial socialization (Weil, 1973). They became polite and conforming while remaining aloof and transforming their aggression and negativism into obsessive rituals. Later on, these children are likely to manifest latent or early schizophrenia and borderline, narcissistic, and "as if" personality disturbances. In such conditions, severe obsessionalism alternating with psychotic episodes frequently develops.

RELATION TO OTHER MODELS

By comparing the proposed ego psychological approach to childhood psychosis with the descriptive and etiological models, its numerous theoretical and clinical advantages may be highlighted. In addition to their familial and epidemiological findings, descriptive studies have accumulated an abundance of behavioral data reflecting the prevalent symptomatology in psychotic children. The descriptive approach, however, provides no theoretical framework for understanding the meaning or interrelationships of these symptoms in the context of the psychotic child's total personality functioning. The descriptive characteristics reported remain isolated facts and, as such, aid minimally in efforts to comprehend the overall psychotic disturbance and to de-

sign'a method of psychotherapeutic treatment.

The etiological approach proposes hypotheses about the causation of similar symptomatic findings. Theories proposing organic factors, in particular, fail to integrate their hypotheses with the biological findings and explanations of other investigations and with the complex set of psychopathological features in psychotic children. Like the descriptive approach, organic formulations offer valuable but limited and fragmented information which sheds little light on the overall psychotic picture or on the processes of "cure."

The clinical value of the proposed ego psychological model will be illustrated in the case presentation in Chapter VI. In brief, however, application of the model permits identification of the central structural impairments toward which major treatment efforts must be directed. It also permits identification of the strengths and resources which can be drawn upon to augment the treatment process. Further, by proposing that healthy object relations are essential to fostering personality development, the ego psychological model suggests that the fundamental medium for promoting change is the ongoing therapist-patient relationship.

In contrast with the descriptive and etiological approaches, the proposed ego psychological model provides a sound theoretical context for organizing the numerous and diverse psychological and biological symptoms of psychotic children. Using the conceptual framework and developmental perspective of structural theory, it provides the tools for understanding and integrating otherwise disparate manifestations

of pathology with each other and with the processes of personality formation in each developmental phase. The conceptual assets of the ego psychological approach can be demonstrated by translating the clinical findings of the descriptive and etiological models into the psychoanalytic concept of the ego as a psychic structure which is defined functionally. In fact, it will presently be shown that the descriptive and etiological models describe ego disturbances phenomenologically and theoretically, without, however, recognizing them as such.

Kanner's (1943, 1949; Eisenberg & Kanner, 1956) investigations exemplified the use of descriptive diagnosis to identify a syndrome. The two pathognomonic features he attributed to "infantile autism," namely, extreme social detachment and the anxious need to preserve sameness, can easily be understood as reflecting impaired object relations and defensive functioning, respectively. In keeping with this author's viewpoint, Beres (1956) related rituals performed to maintain sameness to the psychotic child's defensive need for repetition and continuity when dealing with incomprehensible and unmanageable problems. Kanner viewed severe language disturbances as a secondary feature of autism which, in terms of ego pathology, implies interference with an autonomous function as defined by Hartmann.⁵ Further, Kanner implicitly recognized the variability of ego functioning when he observed that, in contrast with his developmental deficits, the autistic child can display skillfulness with inanimate objects and exceptional capacities, for example, in rote memory function.

⁵See Chapter IV, p. 216.

Creak (1961, 1963), who compiled one of numerous lists of descriptive diagnostic criteria for early childhood psychosis and schizophrenia, found impaired object relations in 67 of her 68 subjects. Among her other eight criteria, the lack of appropriate self-awareness readily translates into deficient self-other differentiation. Viewed in terms of ego functions, the presence of excessive anxiety points to inadequate defensive and self-regulatory mechanisms. The pattern Creak noted of "overall retardation with islets of higher function" parallels Kanner's finding of special abilities in autistic children as well as the scatter of ego functions implied therein.

In brief, a structural analysis of the characteristics which comprise other descriptively defined syndromes and diagnostic checklists could similarly be performed. Groupings of descriptive traits according to differentially impaired ego functions would readily emerge.

The organic deficits to which etiological significance has been attributed constitute disturbances of the autonomous apparatus and functioning of the ego. Several studies of perceptual disorders in psychotic children, reviewed in Chapter I, delineated the effects of perceptual dysfunction on other areas of personality functioning, thereby implicitly highlighting the interdependence of ego functions. Ornitz and Ritvo (1968), for example, observed that perceptual inconsistency in psychotic children diminishes their capacity for distinguishing themselves from others and for imitating behavior. Seen from an ego psychological viewpoint, both incapacities seriously distort object relations. Rimland (1964) reported that, due to defective

arousal mechanisms in the reticular activating system, autistic children cannot integrate diverse sensations, comprehend relationships, relate new stimuli to remembered events, or derive meaning from experience. The absence of these cognitive and integrative abilities defines major components of impaired reality testing and synthetic functioning. Utilizing an ego psychological approach, Smolen (1965) noted that psychotic children who manifest soft neurological signs of distorted perception and cognition are unable to establish accurate concepts of internal and external reality. Again, it is the function of reality testing which suffers from these organically-based deficits.

Studies yielding evidence of deviations in motor skills, intelligence, and speech and language in psychotic children substantiate the basic psychoanalytic formulation that childhood psychosis is defined by disruption of specific ego functions, of stable ego functioning, and of even ego development. For example, the scatter of I.Q. subtest scores, frequently reported as significant in psychotic children, attests to the divergent levels of development with respect to different ego functions. In line with the previous reference to Kanner's finding of language disturbances, mutism, delays or arrests in language development, and loss of language functions exemplify the various distortions of autonomous ego functions that early psychotic processes can effect. Reported atypicalities of language such as the lack of spontaneity, affectivity, communicative purpose, and gestural reinforcement are consistent with the autistic avoidance of human contact. Hence, they appear interrelated with deviant forms of object

relations and demonstrate the reciprocal relations of ego functions. Peculiar motor patterns and disturbances of locomotion, coordination, motor control and balance have been found to sometimes co-exist with superior, unusually graceful, and rhythmic motor performance. Thus, once again, the behavioral findings revealed by etiological studies of organic symptoms plainly exhibit the developmental contrasts which distinguish ego formation and functioning in childhood psychosis.

Bender's (1942, 1947, 1949, 1953, 1956) hypothesis of a neurological dysmaturational affecting all areas of central nervous development encompasses the many physiological abnormalities she found in psychotic children. Her theory, in and of itself, attests to the gamut of ego dysfunctions in psychotic children. Bender observed developmental delays and accelerations which, when translated, constitute disruptions of the orderly unfolding of ego functions. The disturbances she reported in motility, perception, language, thought and symbol formation can aptly be seen as reflecting gross interference with the smooth development and operation of the autonomous ego apparatus. Bender related her impressions of the unstable body image, ego boundaries, and identity formation in psychotic children to their motoric dysfunctions. Maintaining that the psychotic child cannot define his bodily self nor his relation to time and space, she viewed his molding into the adult or leaning on him for support as the child's way of locating his center of gravity and ego boundaries. Irrespective of the biological origin Bender attributes to them, these deficits in the definition of body boundaries effect disrupt-

tions of self-other differentiation and, hence, of object relations and reality testing. With the concept of embryonic "plasticity," Bender alluded to the variability of patterns of disturbance within and between children, thus accounting, in neurological terms, for the variability of ego functioning within and between psychotic children.

Finally, using Bender's theory, Fish (1976; et al., 1966) discovered that children with "soft" neurological signs before the age of 2 manifested gross scatter in visual-motor tasks. Unusual combinations of retardation and precocity appeared in the areas of gross motor and visual-motor development. These entailed marked fluctuations in the rate of development, temporary loss of abilities, and reversal of particular developmental sequences. In organic terms, Fish once more demonstrated the numerous sources of variable ego functioning and the resultant ego fragmentation in psychotic children.

To sum up, descriptive diagnosis provides piecemeal information about the behavioral characteristics of psychotic children. Organic theories of etiology describe functional deficits presumed to be physiologically based. By applying ego psychological concepts to the findings of the descriptive and etiological models, their contributions have been conceptualized as disturbances in the emergence, operation, stability, evenness and synthesis of ego functions. The purpose of bringing the observations of descriptive and etiological theories in line with the rubric of ego psychology has been to begin demonstrating that, in contrast with other approaches, the proposed

ego psychological model provides a comprehensive framework for organizing the diversified psychopathological features characteristic of psychotic children. Only a thorough, integrative understanding of their functional and structural ego deviations can hold the promise of a sound conceptual grasp and an effective therapeutic approach.

CHAPTER IV: AN INTEGRATIVE EGO
PSYCHOLOGICAL VIEW OF DEVELOPMENT

INTRODUCTION

The Value of Theory

The fundamental significance of grounding clinical assessment and treatment on a firm theoretical foundation is often underestimated. Hartmann (1952) noted the tendency to disparage theory by "equating it with 'speculation'" and by arguing that "the limitless and colorful diversity of individual clinical experiences is reduced in the process of hypothesis formation..." (p. 28). Regarding, in particular, the contributions of psychoanalytic theory to clinical work, he recognized a "lack of awareness of how much...the clinical approach owes to the highly complex structure of hypotheses developed by Freud and others" (Hartmann, 1952, p. 28). Equally relevant to modern clinical practice are Hartmann's (1952) question about why clinical observation is considered more relevant than theory and why "sometimes the natural emphasis on clinical data turns into a distrust of theory" (p. 28). This author has observed an additional current tendency to regard the psychotherapist's interpersonal skill as the necessary and sufficient agent of treatment rather than viewing it as an instrument of therapeutic interventions which are shaped by theoretical understanding and hypotheses.

Contrary to the above views, the application of theory to

clinical data is the sine qua non of competent psychological diagnoses and treatment. Only a theoretical orientation offers the possibility of comprehensive assessment based on sound etiological, developmental, and psychodynamic formulations. These, in turn, are needed to effectively guide the treatment process which, itself, advances the ongoing process of clinical evaluation. Without a theoretical basis, neither assessment nor treatment can address the presenting and ever-evolving clinical picture in a consistent and holistic way. Moreover, the striving for conceptual mastery of typically diverse and variable manifestations of psychopathology simultaneously furthers the understanding and mastery of counter-transferential developments.

In the closing chapter, the application of the following developmental model to childhood psychosis is intended to demonstrate the clinical necessity and value of the theoretical framework. Moreover, it is intended to support the author's main contention that an ego psychological approach is most useful for conceptualizing, diagnosing, and treating childhood psychosis.

The evolution of ego psychology within psychoanalytic theory is discussed immediately below. It is hoped that an overview of this historical unfolding will enhance the understanding of the ego psychological view of development subsequently presented.

The Development of Psychoanalytic Ego Psychology

The Early Stages

As early as the 1890's, Freud's discussion of the "ego" fore-

shadowed later developments in ego psychology (Hartmann, 1950a). In his later works, he modified his initial theories of the ego and laid the foundations of ego psychology proper. Earlier, however, his investigations of psychic functioning focused primarily on the study of the id--"on the laws governing unconscious mental processes, on the characteristics and development of instinctual drives, and on some aspects of psychic conflict" (Hartmann, 1952, p. 9). In fact, prior to the 1920's, the role of the ego was "little emphasized and at times even completely submerged under the impact of the theory of instincts....Only in the 1920's was ego psychology explicitly defined as a legitimate chapter of psychoanalysis" (Hartmann, 1952, p. 9).

The historical evolution of ego psychology has been divided into four phases, with all but the last traced via the development of Freud's thinking (Rapaport, 1959). His earliest concepts of defense and reality relations, formulated prior to 1897, may be considered his major contributions to the first phase. He attributed a decisive role to external reality in the development of personality and conceived of defense as "directed against the memory and the re-encountering of certain reality experiences" (Rapaport, 1959, p. 6). While modern ego psychology continues to assign a central, though different, role to reality in personality formation, it argues forcefully against the primitivity ascribed, early on, to the ego, which then stood for the "person," "self," or consciousness.

Freud's basic theory of psychoanalysis, formulated between the late 1890's and 1923, marked the second phase in the emergence of ego

psychology (Rapaport, 1959). Upon recognizing that the sexual seductions reported by his patients represented products of fantasy rather than actual experiences, Freud, at this stage of theory development, disclaimed the crucial influence of reality on psychic development (though this aspect of theory was later again reformulated). In the meantime his new interest in the source and process of fantasy production led the way to his discovery and investigation of instinctual drives. Despite the shifting focus away from the ego, the theoretical development of ego psychology progressed. The general problem of the ego's defensive functions received continued attention, though the general concept of "repression" replaced the former notion of multiple mechanisms of defense. And although certain ego functions were redefined in terms of instinctual drives rather than ego energies, the question of ego forces likewise remained alive. The progress of ego psychology, during its second phase, was further stimulated by the concept of secondary process thinking and related formulations of reality relations and consciousness (for example, the notion of a reality principle mediated through secondary processes) and by the development of the energetic model which adumbrated Freud's structural theory.

Ego psychology was most implicitly articulated by Freud between 1923 and 1937. At the outset of this third phase, the "ego" was conceptualized in The Ego and the Id (1923) as a "coherent organization of mental processes...(with) genetic roots and energies of its own" (Rapaport, 1959, p. 9). "Consciousness," formerly equated with

the ego, was redefined as one of many possible mental characteristics of the ego. However, while certain independent genetic roots were now attributed to the ego, the assumption that the ego emerged via differentiation from the id was retained. Thus, psychoanalytic thinking viewed the ego genetically but lacked an epigenetic schema of its development that would parallel the phases of libidinal development. Belief in the ego's subservience to the id and domination by the superego and reality still prevail and a gradual theory of the role of the ego's defensive functions remained neglected.

Freud's theory of "signal anxiety" and the autonomous initiation of defense by the ego heralded a second chapter within the third phase of ego psychology (Rapaport, 1959). The ego as "slave" to the id was finally repudiated and primary concern with reality and adaptation was once again given over to the ego. The ego was thought to erect a variety of defenses against instinctual drives which would otherwise jeopardize reality relations.

To summarize Freud's final contributions to ego psychology, he, first, restored the primacy of reality's influence on development while also preserving the importance of instinctual drives. Second, he furnished an early conception of adaptation, albeit one that was formulated exclusively in terms of the dangers of reality. Third, he included affective and perceptual mechanisms among the constitutional components of development and, thus, laid the groundwork for a theory of ego autonomy. Lastly, Freud proposed a

shift in the ego from passive reactivity to the active initiation of defense against anxiety--which afforded an epigenetic view of ego development, though only in relation to anxiety (Rapaport, 1959).

At the close of the third phase, the need remained for a systematic study of the ego, comparable, for example, to Freud's theory of libidinal development (Rangell, 1965). There existed a corresponding and

...increasing readiness to pay more attention to external reality as a source of variability in ego development, on the one hand; and, on the other, to the ego itself, or many of its functions, as an instrument of adaptation to external reality in a broader sense than had hitherto been considered (Benjamin, 1966, p. 30).

A. Freud's volume, The Ego and the Mechanisms of Defense (1936), was a timely and significant contribution to ego psychology. It systematically presented a variety of specific mechanisms of defense against the drives, discussed the problem of drive derivatives, and recognized external dangers to the ego as well (Loewenstein, 1966). It, thereby, integrated two dominant issues associated with the third phase, namely, the ego's internal defensive processes and its relations with external reality (Rapaport, 1959).

The Emergence of a General Developmental Psychology

Theoretical foundations. Based on Freudian thinking, a general psychology of the ego began to evolve in the late 1930's. Heinz Hartmann and Erik Erikson sought to address a gap in psychoanalytic thinking. Until then, ego psychology had viewed reality relations solely in terms of secondary processes and internal and external

dangers. It lacked a more general concept of adaptation which would take object relations into account. Hartmann and others recognized that there existed within psychoanalysis the basis for a comprehensive theory of reality relations which could encompass its psychosocial aspects and which could, additionally, extend ego functioning and development beyond the emphasis on the defensive processes of the ego. Freud's implicit intention, throughout his career, was for psychoanalysis to become an all-encompassing theory of human development. Thus, his formulations of the independent roots, the development, and the functioning of the ego laid the groundwork for a broader, more comprehensive psychology of the ego (Rapaport, 1959). It was Hartmann, above all, who "systematized the existing fragments of ego psychology into a comprehensive whole" (Rangell, 1965, p. 6).

The integration of normal and pathological development. Hartmann proposed that a broad theory of personality, grounded in psychoanalytic theory, must prove valid for normal as well as pathological development. He strove for "insight 'into the entirety of mental functions,'" and aimed "at what one would call a general psychology, encompassing normal phenomena as well as pathological ones" (Hartmann, 1952, p. 11). The task of extending the scope of psychoanalytic theory beyond its concern with pathology was conceptualized as requiring that ego psychology investigate phenomena that had previously belonged solely to the realm of general psychology. It was also thought necessary for a general ego psychology to integrate the formerly neglected study of physiology with the study of normal and

pathological phenomena.

The ego psychological studies of children recognized and demonstrated the integral relationship between normal and pathological development, an emphasis that was not usually found in work with adults. The psychoanalysis of adults, by way of contrast, took "the path from inquiry into the pathological manifestations to a gradual understanding of the normal ones and of decreasing the alleged gap between them" (A. Freud, 1974, p. 9). A. Freud proposed that child analysis might instead "do better by taking the opposite road, i.e., by getting a firm grasp of the facts of normal development and by viewing the abnormal outcome as more or less significant deviations from this course" (p. 9).

In agreement with this principle, both Mahler (1968a; et al., 1975) and Spitz (1965) have conceptualized childhood psychopathology in terms of developmental processes which deviate to a lesser or greater degree from the norm. Both authors maintain that an understanding of normal development illuminates the pathological consequences of developmental aberrations and that "normal development can be reconstructed through a clinical approach" (Spitz, 1965, p. 200). Both, therefore, studied normal and deviant children in order to reconstruct the progression of early developmental events and construct a schematic theory of normal development.

The extended data and methods of investigation. A crucial prerequisite for a general developmental ego psychology was a conceptual grasp of the early stages of development. Yet, due to the

fact that adult analyses did not provide memories or reconstructive data from the preverbal period (Hartmann, 1950b), psychoanalytic theory, prior to Hartmann, had not sufficiently developed and coordinated propositions regarding the preoedipal phases of development (Schafer, 1970). Recognizing the limitations of analytic investigation for understanding both normal and pathological development, Hartmann proposed filling in the existing clinical and theoretical gaps by means of direct studies of infants and children. In addition to observation in the analytic situation these could include direct observation and longitudinal examination of histories from birth on (Hartmann, 1939a, 1950b, 1952; et al., 1946). Observational studies, in particular, could provide a better empirical foundation than child analysis for conceptualizing preverbal phenomena; i.e., mother-child communications, separation-individuation phenomena, and the vicissitudes of object formation (Hartmann et al., 1946). Like Hartmann, A. Freud (1951, 1965a, 1965b) advocated the use of extra-analytic observation to augment the findings of analytic investigations.

There are limits to analytic work, set on the one hand by the means of communication which are at the disposal of the child and on the other hand by what is recoverable in the analytic transference of adults and can be used for construction of infantile experience. There remains much information about the pre-verbal period, the mother-infant relationships, and the environmental influences of the first year of life which can be generated with the help of direct observation (A. Freud, 1965a, p. 38).

"Surface observation," i.e., the direct observation of manifest behavior, "as contrasted with analytic observation" thus became the

"method of choice" of the later ego psychologists (A. Freud, 1965a). They based their new methodology on the assumption that "the happenings in the deeper layers (of personality) are actually reflected in behavior" (A. Freud, 1951, p. 21). The "sign or signal-function" of overt behavior for the observer allows him to use the data of direct observation "as indicator of structurally central and partly unconscious developments" (Hartmann, 1950b, p. 102). The integration of this viewpoint into ego psychology can be seen in Spitz's (1965) use of the term "indicator" to connote an external (behavioral) manifestation of underlying developmental processes. Acceptance grew for the fact that the autonomous ego functions, such as perception, and other ego functions, such as reality testing, are regularly demonstrated in observable behavior.¹ In addition to being theoretically valuable, observational data often prove useful for the clinical purposes of diagnosis and choice of treatment approach (A. Freud, 1965a).

It is important to note that the data of child observation was not intended to replace the findings of psychoanalytic reconstruction, for observational data would not necessarily point out the potential significance of experience more readily demonstrated by the retrospective view of analytic reconstruction. Thus, the "meaningful interpretation" of analytic and observational methods

¹ By contrast, integrative functions are readily observable only in individuals with severe pathology (A. Freud, 1965a).

was instead proposed, in order to promote the "cross checking" of data from reconstruction and direct observation (Hartmann, 1950b). Such "cross checking" of data could potentially serve to confirm analytic assumptions and facilitate the choosing between alternate hypotheses derived from reconstruction, the correction of misplaced emphases, and the modification of inaccurate perspectives. In addition, the integration of observational and reconstructive data could independently contribute to the development of ego psychological theory (A. Freud, 1965b; Hartmann, 1950b).

In brief, psychoanalytic theory evolved gradually from its early separation of observable behavior and unconscious motivation to a graduate acceptance of "surface investigation" as a means to the "depth exploration" of the structure, function and content of behavior (A. Freud, 1965a). The data of investigation progressively expanded from the content of the unconscious to the derivatives of the unconscious to the defense mechanisms used to keep unconscious drives and drive derivatives out of awareness, to childhood behaviors linked to important conflicts and concerns, and, finally, to the study of the ego (A. Freud, 1965b). Paralleling the transition from the study of unconscious productions to manifest ego functioning, corresponding shifts from reconstructive to observational methods and from adult to child subject populations took place. Even during its early stages, the trend toward direct child observation gave "...our knowledge of early ego-id development an incomparably greater concreteness, especially to its reality aspects" (Hartmann, 1952,

p. 11). As a result, the ego began to emerge not only in "its role as adversary of the drives" but also in its performance of numerous other specific and interrelated functions, including those of the nonconflictual sphere of development. Further, the growing concern with early ego development and ego functioning gave rise to a new interest in the personality of the maternal partner and its effect on the child's total development (Hartmann, 1950b).

Gradually, over the course of subsequent years, considerable progress has been made towards formulating a theory of normal childhood development. The vast knowledge accrued, nonetheless, still lacks adequate detail and synthesis. It has been viewed as

...more or less isolated facts not fully inter-related with each other...(as) global rather than circumstantial, spanning, as the libidinal phases do, for example, periods as long as a year or more (A. Freud, 1974, p. 9).

Thus, the need, within ego psychology, for a systematized and extensive picture of normal personality development and integration has not yet been fully addressed. Importantly, however, the works of Mahler and Spitz have been singled out as "two notable exceptions" amongst the ego psychological investigations of development (A. Freud, 1974). By studying the early mother-child relationship, Mahler (1968a; et al., 1975) subdivided what might otherwise appear as a single phase of the unfolding relationship into a sequence of critical stages. Using data on normal and deviant children, she constructed a detailed theoretical schema of normal ego and object relations

development in the early years. Similarly investigating the emergence of the ego and of object relations in the first year of life, Spitz (1965) schematically demonstrated the continuous interdependence and interactions of these two developmental lines. Defining "normality" as "the average achievement of the infant at a certain age" (Spitz, 1965, p. 200) he arrived at an integrated conceptualization of early development.

As evident from the historical overview presented, the works of Hartmann, A. Freud, Mahler and Spitz span the former and current phases of psychoanalytic ego psychology. In light of the significance of their contributions to a general developmental psychology, an integration of major aspects of their theories provide the ego psychological view of development which follows. Prior to a discussion of ego and object relations development per se, the fundamental laws and processes which are thought to govern the course of normal development will be presented.

PRINCIPLES OF NORMAL DEVELOPMENT

The Interaction of Constitution and Environment

Early psychoanalytic theory maintained that psychic structures developed out of the conflict between instinctual drives and the demands of reality. While ego psychology retained this basic view of development as the outcome of interactions between internal and external

factors, ego psychology radically expanded the range of interactions and of innate and environmental influences involved. Building on Freud's notion of a "complemental series" of factors in development, Hartmann (1939a) was the first to integrate the study of the biological and environmental contributions to development. Within this broader, interactional framework, equal attention was paid to the particular factors which the child, on the one hand, and the environment, via its primary human objects, on the other hand, bring to bear on the developmental processes.

The "innate" variables in development are defined by the child's constitutional make-up and can be divided into two major categories. The first of these subsumes the pre- and perinatal events which mark the culmination of the gestation period. As is commonly known, both the intrauterine existence of the fetus and the nature of the delivery process have consequences for the normal or pathological development of the child (Spitz, 1965).

A four-part biological inheritance comprises the second category of constitutional variables. The role of biological needs, drives and impulses in development has long been recognized in psychoanalysis and has been ascribed to the domain of the id. From birth onward, these factors may vary from one infant to another. Their effect on development will be mediated by the capacity of the infant's mother to satisfy them appropriately. If these biological factors deviate from the norm to an extreme degree, the requirements for their satisfaction may exceed the caretaking capacities of even an "adequate"

mother.

Beyond the biological components of the id, "the existence and importance of primary congenital variations in the ego" was first proposed in Freud's suggestion that "even before the ego exists, its subsequent lines of development, tendencies and reactions are already determined" (Hartmann, 1950a, p. 120). Subsequent to the elaboration of this notion by ego psychologists, ego formation has been conceptualized not only in terms of interactions between biological drives and reality constraints, but also in terms of the "inborn constitutional roots" of the ego (Hartmann, 1952). One group of innate factors ascribed to the ego consists of an "inventory of mental dispositions" (Hartmann, 1939a). These denote traits of the neonate, such as his degree of anxiety tolerance. Again, the mother's affective and behavioral responses to the particular "mental disposition" of her infant will greatly influence their effects on the course of his development.

The relatively independent² constitutional origin of the ego also includes the biological substratum of those ego functions which are present at birth, albeit in a primitive form, and which therefore lie outside the realm of conflict (at least during the initial phases of

²The independence of inborn ego factors is only "relative" because they, like every aspect of development, are but one part of a larger whole (Blanck & Blanck, 1974).

development.³ Conceptualized as the "primary autonomous apparatus" of the ego, this inborn equipment subserves the autonomous functions of the ego which include perception, motility, intelligence, memory and others (Hartmann, 1939a). As the biologically-rooted, somatic and mental apparatus gradually matures, it stimulates the development of corresponding ego functions. Both the "autonomous" apparatus and functions of the ego become increasingly structured and differentiated in the course of development. The "autonomous" functions are, in turn, utilized by the ego in carrying out all of its other functions. Because the autonomous ego functions thus constitute the basis for the total functioning of the ego, the congenital intactness of the underlying apparatus has critical consequences for development.

The conceptual distinction between "maturation" and "development" sheds light on yet another partly constitutional characteristic. "Maturation" denotes "the processes of growth that regularly occur relatively independent of environmental influence," such as processes of physiological growth, while "development" denotes "the processes of growth in which environment and maturation interact more closely" (Hartmann et al., 1946, p. 18). Because predetermined biological programming interacts with psychosocial processes to determine the development of the "autonomous apparatus," they likewise influence the character and relative developmental timing of the emerging "autonomous functions of the ego."

Importantly, the ego psychological emphasis on innate matura-

³Hartmann's (1939a) concept of the "conflict-free sphere of the ego" will be discussed further in the section below entitled, "The Development of the Ego."

tional forces is not intended to diminish the significance of experiential learning for ego development (Hartmann, 1952). While the somatic and mental apparatus must reach an expected level of physiological growth in order to serve ego functioning, their actual adaptive use is dependent on learning. "It is not sufficient that the apparatus have the potentiality for adapted functioning; their specific performance must be learned, that is, adapted" (Hartmann, 1939a, p. 105). The environment must therefore provide the opportunities for practice and learning necessary for the full realization of biologically given, functional potentials. Thus, insufficient external stimulation can impede ego development, in spite of adequate constitutional endowment. Yet in light of the fact that learning opportunities cannot be properly utilized without adequate maturational readiness, faulty biological programming can likewise distort the course of ego development, despite adequate environmental input. To sum up the role of maturation in development, it may be said that "maturational processes are not entirely impervious to environmental influences...." But in the absence of extreme environmental deprivation, they "bring the inborn apparatuses" successively into play, and determine at least grossly the rhythm of developmental processes" (Hartmann, 1939a, p. 104).

In brief, the ego psychological thesis of the ego's "inborn constitutional roots" modified the earlier psychoanalytic view of the human infant as a mere creature of instinctual impulses and of development as the outcome of the infant's struggle with id drives

alone. It postulated, instead, that development rests equally on the "inherited laws and sequences of maturation" (Spitz, 1965), and on the related growth of the autonomous apparatus which subserves all of ego functioning.

Within the infinite range of environmental variables brought to bear on developmental processes, there are those factors which, "in the average case, guarantee normal development" and which constitute the "average expectable environment" (Hartmann, 1939a). These have been distinguished from external influences "of a different sort" which do not meet the average developmental needs and which, depending on their interactions with internal factors, may deflect development from its typical course.

Regardless, however, of the particular environmental characteristics, the human object constitutes "the most important sector of reality" for the infant (Hartmann, 1939a, p. 255). Incapable of ministering to his own needs, the infant is wholly dependent on others to satisfy biological urges and relieve inner tensions. "The protracted helplessness of the human infant," therefore, "causes a situation in which 'the value of the object...is enormously enhanced'" (Hartmann, 1939a, p. 255--quoting Freud). The infant's prolonged physical dependency on the object once again demonstrates the inseparability of the biological and environmental aspects of development. Beyond his physiological requirements, all of the infant's early contacts with the environment are mediated by the human object. His extreme dependence thus becomes an "essential

factor in the human child's learning about reality" (Hartmann, 1939a, p. 255) and guarantees him the experiences necessary for adapting to the environment. Thus, "growth and development in the psychological sector are essentially dependent on the establishment and progressive unfolding of ever more meaningful object relations" (Spitz, 1965, p. 4).

Because the ego is the main "organ of learning and adaptation" to reality (Hartmann, 1952, p. 14), the child's object relations and ego functioning interact throughout development. Most significantly, the "neonate organizes his ego within the dyadic relationship," i.e., within the all-important mother-child relationship (Spitz, 1965, p. 41). The quantity and quality of maternal care, as determined by the mother's personality, is therefore the primary external influence on the child's early development. Further, "the ability of the human being to establish social relations is acquired in the mother-child relation" (Spitz, 1965, p. 26). All subsequent object relationships are shaped by the interactions within the original dyad. Thus, the satisfactory progression of the early mother-child relationship is the major prerequisite for normal ego and object relations development alike. Deviations from the normative sequence of stages in the mother-child relationship can effect varying degrees of distortion in object relations and in ego functioning.

Because the personal characteristics of both mother and child influence their relationship, the mother's personality traits and the child's constitutional make-up are equally decisive developmental

factors. Development is therefore a function of the way in which the child's particular constitution interacts with the mother's personality. Deviant development can unfold from the inability of the mother to compensate for constitutional vulnerabilities in the child or from the child's inability to overcome the negative effects of less than satisfactory mothering. In brief, it may be said that normal ego and object relations development are both dependent on the external promotion of innate potentials which is largely accomplished in the one-to-one, mother-child relationship.

Basic Developmental Concepts

"Phases" and "Lines" of Development

The developmental theory of ego psychology is concerned with "the whole of a person's development." The totality of development is conceptualized as "a rather complex interdependence of a great variety of developmental factors and a branching out of many alternatives on every subsequent developmental stage" (Hartmann, 1950b, p. 112). Development thus consists of a sequence of stages or "phases" wherein a large number of variables converge at particular times and in particular ways to bring the various sectors of development to higher levels of somatic growth and adaptive functioning.

The various areas of personality development have been referred to as "developmental lines."

What these lines represent are ladders leading up every one of the expected achievements of the child's personality, each step on the way being the results

of interaction between id, ego, and environment, the way leading upwards and the course of normal, progressive growth, respectively downwards whenever regression occurs (A. Freud, 1974, p. 10).

While each developmental line reflects the child's actual progress (or lack of it) within a particular sphere of personality, viewed together, the developmental lines reflect the entire picture of developmental achievements (and possible failures).

Just as each phase in development is characterized by a particular level of attainment along each developmental line, each phase likewise represents a transition from a given level of development to a higher one. The phases, however, are not demarcated by definite temporal beginnings and endings but rather overlap, each one blending into the next.

According to the principle of "genetic continuity" (Hartmann, 1950b), the events within each developmental phase have a direct impact on those of the subsequent phase. The nature of the developmental processes in each phase thus sets the stage for the developmental events of the next phase and thereby ensure (or threaten) progress. By way of the same reasoning, all of future development is likewise affected. Thus, occurrences on any line of development and within any phase of development are always determined by and traceable to their genetic antecedents in earlier phases. Depending on the total interaction of developmental variables that subsequently intervene, developmental arrests, deviations, or failures in one phase may or may not be compensated for in the course of later phases.

In addition to the influence of prior stages, the constitutional

and environmental factors which interact during each phase also affect developmental processes and outcome. Further, because specific tasks must be mastered within each phase, development within each particular phase is susceptible to specific kinds of positive and/or negative influences. The concept of "phase specificity" thus proposes that "the importance of factors of any kind which affect development depends to a large extent on the specific phase in which they occur" (Hartmann, 1950b, p. 110). The nature of the intervening variables and the lines of development affected codetermine the degree and quality of enhanced or compromised developmental outcomes.

Lastly, though normative, optimal ages have been established for the attainment of various developmental achievements, considerable intra- and interindividual chronological variation is subsumed within the normal range of development (A. Freud, 1970). As a function of intervening internal and external factors, there frequently occurs a change in the rate of growth between one developmental phase and the next and along one or more developmental lines. Providing, however, that such changes do not reach extreme proportions, they are typical and expectable within the course of normal development. In sum, therefore, "the developmental age of a child does not need to coincide with his chronological age and...fairly wide discrepancies in this respect are within the normal range" (A. Freud, 1970, p. 34).

Processes of "Differentiation" and "Integration"

As development proceeds along each developmental line and

through the sequence of developmental phases, new ego functions arise and become increasingly specialized and structured. Development, thus conceptualized by ego psychology as the "gradual unfolding of the psychic structure," progresses "under the impact of processes of differentiation and integration" (Loewenstein, 1966, p. 478).

Through "differentiation" of the inborn apparatus, more effective and complex modes of ego functioning evolve and replace earlier and more primitive ones. Through processes of "integration," these superior modes of functioning are synthesized into new ego functions which advance adaptation to reality. Therefore, "differentiation indicates the specialization of a function; integration, the emergence of a new function out of previously not coherent sets of functions or reactions" (Hartmann et al., 1946, p. 90).

By way of the growth of the autonomous ego apparatus and the corresponding ego capacities and functions, "The processes of integration and differentiation in early childhood show the constant interaction between maturational and developmental factors" (Hartmann et al., 1946, p. 102). Based on the observed convergence of biological maturation and ego development, "critical periods" are thought to characterize psychic development (Spitz, 1965). It is at these critical crossroads of development that "different currents of development are integrated with one another and with emerging functions and capacities resulting from maturation. The outcome of this integration is a restructuring of the psyche on a higher, more complex level" (Spitz, 1965, p. 118).

The successful integration of developmental lines and the resulting transition from one developmental phase to the next help bring about a spurt in development. This observable advance reflects the existence of an underlying "organizer of the psyche," an hypothesized construct used to represent the attainment of a new level of integration in development (Spitz, 1965). A specific behavioral sign or "indicator" emerges and visibly demonstrates the establishment of an "organizer" and the corresponding synthesis of psychic developments.

The processes of differentiation and integration promote a hierarchical organization of ego functions during the course of development. This hierarchical organization or "rank order" is defined in terms of the increasing differentiation, integration and adaptiveness of the ego functions which characterize their developmental evolution (Hartmann, 1939a). Further, this "rank order" reflects one aspect of the overall "organization of the organism." The "fitting together" or "lawful correlation of parts" of the personality may be attributed to the "organizing" or "synthetic" function of the ego which includes its coordinating, synthesizing and balancing tendencies (Hartmann, 1939a). The "rank order" and coordination of the ego functions jointly influence their stability and effectiveness.

Forms of "Equilibrium"

In normal development, the synthetic function of the ego ensures

that the growing child functions in relative harmony with his environment and that the various areas of personality functioning operate in relative harmony with one another (A. Freud, 1965b; Hartmann, 1939a). In promoting these harmonious relationships, the organizing function of the ego strives to maintain states of balance or "equilibrium" between the factors involved. External or internal stimuli may impinge upon the general state of "equilibrium" that characterizes the normally developing child's relation to his environment. In response to such disruption, however, the ego activates mechanisms which re-establish the balance between the individual and his surrounds.

Harmonious personality functioning prevails when progress along the various developmental lines proceeds at relatively parallel rates. In turn, the underlying balance within and between the psychic structures--between the ego and the id, between the libidinal and aggressive drives, and among the multiple ego functions--rests upon the state of balance between significant developmental processes which typifies normal development. The "equilibrium," for example, between differentiation and integration is decisive for normal development but can be disrupted by the precocity or retardation of either set of processes (Hartmann, 1939a). Further, the differentiation-integration balance is related to the prerequisite equilibrium in normal development between maturational and developmental processes. For instance, when the expected integration of developmental lines is not achieved within a certain "critical period," development is

arrested. Maturation, however, continues to proceed in accord with preprogrammed, biological timetables. To the extent that maturation outdistances development and thus creates imbalance, so too will personality formation deviate from its normal course (Mahler, 1968a; Spitz, 1965).

When the critical equilibrium between maturation and development and between differentiation and integration is maintained, the development of the id and the ego are likewise kept in balance. Accelerating and/or retarding factors, however, can influence either aspect of development. Given the integral interrelations of all areas of personality functioning, any developmental disequilibrium within one psychic structure will effect a similar imbalance between the two structures and within the other structure as well (Hartmann, 1952). Thus, at any given point in development, aspects of id functioning may emerge in advance of or subsequent to aspects of ego functioning. Similarly, the structural growth or adaptive use of any ego function(s) may outdistance or lag behind the corresponding development in other ego functions. In light of the ego psychological emphasis on specifying the distinct functions of the ego, the global concepts of "precocious" or "retarded" ego development can be replaced by identification of the particular ego functions which are delayed or advanced and within which intrapsychic disequilibrium therefore originates (Hartmann, 1950b).

To sum up, the rate and quality of growth along individual developmental lines correspond fairly closely in normal development

and promote a "harmonious, well-balanced personality" (A. Freud, 1974, p. 13). Progress along each developmental line, however, is determined by constitutional and environmental forces which may differentially obstruct or facilitate development in the various sectors of personality and may thus effect mild to severe "disequilibrium." The range of lesser imbalances encompasses the innumerable variations of normality, while greater degrees of imbalance potentiate a broad spectrum of pathological conditions (A. Freud, 1965b). Disequilibrium interferes with the successful integration of developmental currents which guarantees intact functioning within each developmental phase and ensures smooth passage from one phase to the next.

Forces of "Regression"

A major determinant of "equilibrium" in intrapsychic relations and in the child's relation to his environment is the relative proportion between "progressive" and "regressive" forces and their relative effects on personality functioning. "Regression" is a regular feature of normal, childhood development (A. Freud, 1965b; Hartmann, 1939a). The child's ability to function at a certain level does not ensure continuous, stable performance on that level. Rather, periodic retreats to earlier forms of behavior occur along each developmental line. Therefore, only the joint consideration of "regressive" and "progressive" movements as well as their interaction can afford a comprehensive picture of development.

Various types of regression may occur and originate in either

the ego or the id. All forms, however, represent the child's response to stress. Under the impact of internal or external stress, higher levels of functioning may be lost and replaced by less complex and effective modes of functioning. Recent gains are more vulnerable to stress, while longstanding achievements maintain greater resilience in the face of "regressive" pulls. The degree of regression that ensues is dependent on the intensity and duration of the stress, the extent of underlying vulnerability versus intactness, and the strength of counteracting "progressive" forces.

Those "regressions" which typically occur in the course of normal development are a function of the "plasticity" and instability of the infantile personality (A. Freud, 1965b). They are reversed when the stress lifts and do not effect lasting consequences for development. "Owing to shifts in development and changes in degree of internal and external pressure, optimal positions are repeatedly lost, gained, and reinstated. Such alteration between progress and regression is normal and its consequences are temporary" (A. Freud, 1965b, p. 122). These "reversible" regressions, in fact, serve adaptive and defensive functions in relation to the precipitating stressors.

In response to excessive strain, however, temporary and reversible regressions may become permanent and irreversible. Their effects may generalize to other areas of personality functioning and impede subsequent development. The reversibility or irreversibility of each ego function is therefore determined by its "relative stability vis-a-vis inner or outer stress" (Hartmann, 1952, p. 25).

THE DEVELOPMENT OF THE EGO

Structural Theory

In numerous papers, Hartmann (1939a, 1950a; et al., 1946) expanded the structural theory of psychoanalysis which, prior to his modifications and additions, was weak in its treatment of the development and functions of the psychic structures (Schafer, 1970). He conceived of the systems id, ego and superego as substructures of personality "defined by the functions attributed to them" (Hartmann et al., 1946, p. 14). Hence, he believed that the investigation of their functions could enrich our understanding of personality (Hartmann, 1939a).

Traditionally the id has been associated with those basic needs that are rooted in instinctual drives, and the study of id functions has also taken in the ways in which the drives are gratified. The id is conceptualized as functioning in a primitive manner, that is, as being dominated by primary process mechanisms.⁴

Prior to Hartmann's theoretical contributions, the ego was defined primarily by its defensive function in relation to the demands of the instinctual drives. Hartmann's detailed consideration of other ego functions, however, extended the conceptualization of the ego to account for the individual's interaction with the environment and the tasks of adaptation. Attributing prime significance to the reality aspects of ego functions, Hartmann

⁴The distinction between primary and secondary modes of functioning will be clarified below.

stated that the

...functions of the ego center around the relation to reality. In this sense, we speak of the ego as of a specific organ of adjustment. It controls the apparatus of motility and perception; it tests the properties of the present situation at hand, i.e., of "present reality," and anticipates properties of future situations. The ego mediates between these properties and requirements, and the demands of the other psychic organizations (Hartmann et al., 1946, p. 15).

In addition to this description of the adaptive functions of the ego Hartmann also broke new ground in describing the central role of aggressive wishes in his description of id functioning (Schafer, 1970).

In addition to its reality aspects, Hartmann (1950a) defined three other aspects of ego functioning: 1) the inhibiting features of the ego including the use of thought and action to delay drive discharge; 2) the role of ego functions in defining and describing individual character; and 3) the differentiating and integrating factors in the ego, the latter represented by the coordinating tendencies of the synthetic function.

In psychoanalytic theory, the third and last psychic structure, the superego, is considered the moral agency of the personality. Self-criticism and the formation of ideals are among its essential functions (Hartmann et al., 1946). Hartmann stressed two considerations regarding superego development and function. First, other theorists describe numerous early introjections and identifications as precursors or archaic forms of the superego (Blanck & Blanck, 1974).

Hartmann et al. (1946), however, reserved the term "superego" for that structure which emerges from identifications within the phallic or oedipal phase. Second, Hartmann (1939a) sought to dispel the notion of the superego as a mere counterpart to the ego and the id. He viewed it rather as reflecting the ego's sound adaptation to reality, as serving synthesis, and as representing the prototype of an ideal state of integration. Relevant to the principal themes of the present discussion is the ego psychological emphasis on the developmental progression of the psychic systems and their intricate interrelatedness throughout the developmental course.

These three psychic substructures or systems are not conceived of as independent parts of personality that invariably oppose each other, but as three centers of psychic functioning that can be characterized according to their developmental level...and interdependence at a given time. Under specific conditions one of the centers may expand its area, and another or the two others recede;...functions exercised by one of the systems may temporarily be more or less influenced by one of the others (Hartmann, 1946, p. 14).

In brief, ego psychology, as articulated by Hartmann, reformulated aspects of structural theory including the definitions of all three psychic agencies.

The Concept of Adaptation

The adaptive point of view in ego psychology extended the explanation of psychological phenomena beyond pure psychodynamic description to include an environmental perspective (Spitz, 1965). As proposed by Hartmann, "adaptation" primarily refers to the "reciprocal relationship between the organism and its environment" (Hartmann, 1939a, pp. 23-

24).⁵ Its essential relevance to this discussion is that it may be thought of as representing the ongoing and overriding purpose of ego development, namely, enabling the individual to evolve stable, satisfying and efficient relations with his surrounds.

Hartmann proposed that, in general, adaptation can result either from changes the individual effects in his environment or from changes brought about internally through development and maturation. But the adaptive value of either of these processes for a particular individual can be assessed only in relation to the characteristics of his environmental situation. Thus, the identical behavior may serve an adaptive purpose in one context but have pathological implications at other times. Thus, a behavior that is pathological in a "typical average environment" may be adaptive in an extreme or otherwise abnormal environment.

By means of another important distinction, Hartmann drew attention to a "state of adaptedness" which already exists at birth, before intentional "processes of adaptation" are initiated. The inborn ego apparatuses of perception, memory, and motility mechanisms offer some degree of preparedness for dealing with the environment by performing aspects of the functions later attributed to the ego.

⁵In the present context "adaptation" is being used in its "narrow, clinical or descriptive" sense. In its broader sense, it is a biological concept reflecting Hartmann's a priori, natural-science point of view and his intent to create a framework of a biological adaptation theory for psychoanalysis (Schafer, 1970).

As this basic equipment matures and develops in interaction with experience, it is utilized by "processes of adaptation" to guarantee "states of adaptation." Hartmann stressed the critical role of the inborn adaptive abilities and ego apparatus in later adaptive processes. Because this apparatus serves the autonomous ego functions in their direct relations with external reality, disorders of the primary ego apparatus can lead to disturbances and failures of adaptation.

Hartmann (1950a) referred to the ego as the organ of adaptation and learning. As the ego develops, it regulates those activities which utilize the inborn equipment to bring about successful relationships with reality and relative mastery of the environment. Due to the protracted helplessness and dependence of the infant, the individual is forced to acquire the processes of adaptation through learning, a primary task of the ego.

The adaptive point of view can often shed new light on established functions or achievements. A defense against threatening drives, for example, may have its adaptive features in relation to reality and thereby serve two requirements of the personality simultaneously. Or it may be that a process which represents an adaptive achievement may also produce an adaptational disturbance if, for example, it inhibits another adaptive function.

Optimally the developmental process fosters the "elasticity of human adaptiveness" (Hartmann, 1939a), i.e., when the individual has at his disposal several alternative means to master an environmental

problem. Then flexibility of thought and action allow him the greatest chance for negotiating the challenges he meets. Yet, as Hartmann (1939a) pointed out, inflexible "automatisms," or relatively stable structures and reaction patterns, also develop and eliminate the need for devising new means of adapting to every task. Through exercise of functions "automatization" forms secondary structures, such as the motor apparatuses or aspects of the memory function. These overlearned, automatic purposive behaviors serve the average range of expectable tasks. "Exercise automatizes methods of problem-solving just as it does walking, speaking or writing" (Hartmann, 1939a, p. 25). In contrast with ego rigidity which poses an obstacle to adaptation, automatisms can be superior and efficient forms of functioning. Hartmann concluded that "the healthy ego thinks and acts flexibly but not exclusively so; in the healthy human being certain superordinate ego functions determine when the ego can make purposive use of automatisms..." (Hartmann, 1939a, p. 95). Thus, both flexibility in calling upon adaptive solutions to problems, and reliable use of automatisms in situations calling for overlearned responses, are necessary for adaptive functioning.

Roots of Ego Development

Hartmann's formulations of ego development replaced earlier psychoanalytic conceptions and were incorporated into subsequent developmental theories in the writings of A. Freud (1965b), Mahler (1968; et al., 1975), Spitz (1965), and others. Hartmann's theories,

based on the assumption of autonomous ego functions which are rooted in inborn ego apparatuses, replaced the earlier notion that the ego develops out of the id. Alternately, Hartmann et al. (1946) postulated an initial undifferentiated matrix--comprised of instinctual tendencies, physiological mechanisms, and the inborn equipment--from which both the ego and id gradually emerge. In this early developmental phase, no differentiation between the ego and id, the self and the environment, as yet exists. Discrete structures, functions and drives only gradually emerge from this undifferentiated totality. Maturation of the autonomous ego apparatuses proceeds, within this phase, independently of the total ego organization. Only later, after development and further maturation lead to the differentiation of psychic structures do apparatuses become incorporated under the control of ego functioning.

Hartmann et al. (1946) suggested that, in our civilization, the essential elements of personality structure are formed by age 5 to 6, and that all subsequent developmental processes serve to modify and enrich, or in pathological conditions, restrict, an existing structure.

The undifferentiated phase of development is characterized by primitive means of regulation rooted in physiological mechanisms, i.e., the reflexive defenses against unpleasant stimuli, and the projective stimulus barrier (Bergman & Escalona, 1949). As by-products of differentiation processes, new regulatory mechanisms continually evolve, ensuring the formation of the ego and its continuous climb to

higher levels of regulation.

Ego development is a differentiation in which these primitive regulating factors are increasingly replaced or supplemented by more effective ego regulations. What was originally anchored in instincts may be subsequently performed in the service of and by means of the ego, though, naturally new regulations too will arise in the course of development of the ego and id. Differentiation progresses not only by a creation of new apparatus to master new demands and new tasks, but also and mainly by new apparatuses taking over, on a higher level, functions which were originally performed by more primitive means (Hartmann, 1939a, pp. 49-50).

Significantly, progressive differentiations within the ego determine the range of adaptive resources at each developmental level. All forms of adaptation are dependent upon numerous factors, including, in particular, the mental level and the scope of the intrapsychic world, both attained through differentiation processes (Hartmann, 1939a).

Just as instinctual tendencies originate in the undifferentiated phase, a notion consistent with the earlier psychoanalytic view of the purely instinctual nature of the infant, so too may later ego attitudes and defenses find their common origin in that phase (Hartmann, 1952). Ego tendencies, for example, toward giving and getting, and defenses, such as identification and projection, may be modeled after primitive instinctual patterns. Exhibitionistic attitudes or persistent oral interests are traceable to early instinctual behavior. The physiological processes that characterize the ego apparatus in the undifferentiated phase as well as its typical instinctual trends,

may represent the genetic precursors of the developed ego's defenses. Closing the eyelids to block out stimuli may, for example, parallel later flight and avoidance.

Yet the primary autonomous factors constitute the major aspect of the ego's early origins. For Hartmann (1939a), "autonomous" implied independence from instinctual drives and from external reality. As already mentioned, however, this independence is but relative, because the ego does not develop in isolation from the influences of the environment and other psychic structures. Due to the constant interaction of the ego with the drives, the autonomous factors may or may not retain their original independent status (Hartmann, 1950a). They may, in the course of development, come under the influence of the drive and take on sexualized or aggressivized qualities. They may become involved in the ego's defenses against drive tendencies, reality, or the superego. Thus, they are divested of their original nonconflictual status.

Implied in such transformations of primary autonomous ego factors is Hartmann's (1939a, 1950a, 1950b) pivotal concept of a "change of function," crucial for the understanding of defenses in both normal and pathological development. In the progression described, an autonomous function may come to serve an ego defense through "change of function." Further, by way of a similar "change in function," defense mechanisms against instinctual drives may in the course of development acquire new functions. Ego activities which in their archaic defensive form counteracted pleasure may, in like

fashion, become sources of pleasure in and of themselves.

...a behavior-form which originated in a certain realm of life may, in the course of development, appear in an entirely different realm and role. An attitude which arose originally in the service of defense may, in the course of time, become an independent structure...(and) come to serve other functions (adaptation, synthesis, etc.); it may also...through a change of function turn from a means into a goal in its own right (Hartmann, 1939a, pp. 25-26).

Progressing in an opposite direction from the primary autonomous ego factors, such functions emerge as a result of conflict and secondarily become part of the nonconflictual sphere of development. Acquiring increased stability and independence in this secondary fashion they attain "secondary autonomy" in ego development. "Many aims, attitudes, interests, structures of the ego have originated in this way ...because we know the results of this development to be rather stable, we may call such functions autonomous, though in a secondary way" (Hartmann, 1950a, p. 123). Ego functions differ in the extent to which they remain stable in the face of regressive forces. The degree of secondary autonomy achieved is an indicator of their stability and is likewise a measure of their "resistivity to regression" (Hartmann, 1950a, 1952).

Underlying the concepts of primary and secondary autonomy and functional changes, is Hartmann's (1939a) fundamental distinction between conflictual and nonconflictual ego processes. While earlier psychoanalytic theorists attributed ego growth solely to the process of mastering conflicts with external reality or with the other psychic systems, Hartmann specified a second route of ego development.

He attributed an equal developmental role to the "conflict-free sphere of the ego," and to the inborn ego apparatus, "that ensemble of functions which at any time exerts its effects upon the region of mental conflicts" (Hartmann, 1939a, p. 8).⁶ Though the development of autonomous ego factors depends on constitutional givens, maturation, and learning, it is, as noted above, by no means immune to the effects of conflict. Thus, Hartmann intended the conflict-free ego sphere to represent "processes insofar as, in an individual, they remain empirically outside the sphere of mental conflict" (Hartmann, 1939a, p. 8). Conflict, in Hartmann's schema, remains a primary source of ego development. In contrast with the earlier psychoanalytic thinking, however, conflict in and of itself does not imply pathology. It is the range and intensity of conflict, rather than its presence or absence, which distinguishes normal and pathological development.

Inter- and Intrasystemic Relations

The complexities and influences of interrelated psychic processes on development are elaborated in Hartmann's consistent examination of synergistic and antagonistic relations within and between the mental

⁶ Among the functions of the "conflict-free sphere of the ego" Hartmann includes perception, intention, object comprehension, thinking, language, recall phenomena, productivity, phases of motor development, and the maturational and learning processes implicit in them (Hartmann, 1939a).

agencies. The concept of "intersystemic conflict," long established in psychoanalytic theory, refers to the conflict between the three psychic structures, or systems. Considered from an adaptational perspective, internal conflict can effect disturbances in the individual's relation with his environment (Hartmann, 1939a).

Prior to Hartmann, the intersystemic id/ego relationship was discussed in its conflictual aspects only, with the id and ego representing independent and dependent variables respectively. The ego was characterized by its stubborn opposition to the instinctual drives. This unidimensional formulation was expanded by Hartmann's (1952) new recognition of the id's dependence, the mutual influences of id and ego, and the collaborative facets of id/ego relations. More specifically, Hartmann argued that growth and development effect transformations not only in the ego but also in the instinctual drive throughout their developmental phases. Further, the ego does not simply react to id drives and defend against them, but likewise serves and modifies their aims by finding suitable modes of expression and means of gratification. In addition, the ego follows the lead of the drives, deriving specific attitudes, in each of its phases, from the closely connected sequence of libidinal stages.

Psychoanalysis, before Hartmann, had neglected intrasystemic relations, particularly within the ego (Schafer, 1970).⁷ Without intending to underestimate the collaborative efforts of different

⁷For a discussion of intrasystemic conflicts within the id and superego see A. Freud (1966a).

functions in the service of adaptation, Hartmann (1950a, 1951, 1952, 1956) consistently attended to "intrasystemic conflicts" between various ego interests and "between the different ego functions, like defense, organization, and the area of ego autonomy" (Hartmann, 1950a, p. 140). Examination of defensive functioning, for example, clarifies how development on one side of the ego may impede development of another side. Denial and repression interfere with accurate perception of reality (Hartmann, 1956). Denial, repression, and reaction formation all interfere with memory functions by excluding unpleasant facts from the perception of the outer world and of the inner world, and by replacing them with their opposite, respectively. Projection undermines the synthetic function by disavowing unacceptable elements of one's self-image and attributing them to external objects (A. Freud, 1966a). Thus, "what is adaptive in one respect may interfere with adaptation in another...(and) the preponderance of one adaptive function may mean the weakness of another one" (Hartmann, 1956, p. 254, 258).

Such intrasystemic issues point to the conflictual and non-conflictual spheres of the ego. While the relations of denial, repression, and reaction formation to perception and memory demonstrate that the ego's struggle with conflict affects the development of autonomous factors, the reverse is also true. Not only are factors in the nonconflictual realm influenced by the means of conflict solution but they in turn codetermine the latter, and they shape the means by which instinctual stimuli are dealt with (Hartmann, 1952).

The child's perception, memory, intellect and motility define his special talents or disabilities. As such, they have direct bearing on the timing, intensity and expressive mode of his conflicts and play a vital role in facilitating or hampering his ability to master them (Hartmann, 1939a, 1950a).

The intrasystemic approach is essential for the clarification of concepts such as "ego strength," "weakness," "restriction," "control," and "dominance." The intersystemic viewpoint defines the above solely in terms of the ego's conflictual relations with the id and superego, correlating degrees of "ego strength," for example, with the relative strength of the drives. The intrasystemic approach, on the other hand, judges ego strength on the basis of behavior in specific situations, giving differential consideration to the various interrelated defensive and autonomous functions involved (Hartmann, 1939a, 1950a, 1951). While the singular study of defense can demonstrate the ego's strength vis-a-vis the drives, it ignores the fact that defense itself may become the very cause for ego weakness. Whether or not defenses exhaust ego strength is determined not only by the force of the drives and their defenses themselves but equally by the available support of autonomous functions. In sum,

All definitions of ego strength will prove unsatisfactory as long as they take into account only the relation to the other mental systems and leave out of consideration the intrasystemic factors. Any definition must include, as essential elements, the autonomous functions of the ego, their interdependence and structural hierarchy, and especially whether

or how far they are able to withstand impairment through the processes of defense. This is unquestionably one of the main elements of what we mean in speaking of ego strengths (Hartmann, 1950a, p. 140).

A similar, differential consideration of various ego functions is indicated for clarification of the terms "precocious" or "retarded" ego development, which may represent the confounding of "a part for the whole" (Hartmann, 1950b). Factors which influence development do not affect the entire gamut of ego functions in the same way. Individual or groups of functions may be differentially hampered and/or facilitated. For example, wide scatter in levels of ego functioning is characteristic of the development of psychotic children. Thus,

for the purpose of developmental studies...it would often be feasible and useful to replace the global use of terms like "precocious" or "retarded ego development" by more detailed statements specifying what ego functions have actually undergone a precocious or retarded development in relation to the drives and in relation to one another (Hartmann, 1950b, p. 107).

Principle Ego Functions

As the "specific organ of adjustment" and learning, the ego's central role is to mediate the relationship of the individual to reality. Thus, the differentiation, structualization and integration of ego functions aim to serve the phase specific, adaptional tasks of each developmental level. The following discussion of major ego functions will begin with an examination of the reality principle, "the ego function and...adaptation process of the highest significance" (Hartmann, 1939a, p. 43).

The Reality Principle

Acceptance of and conformity with the demands, expectations and limits of external reality are the fundamental dictates of the "reality principle." Together, they entail a gradual relinquishing of the "pleasure principle," the former, single regulator of infantile behavior, and its subsequent modification by the "reality principle." Simultaneously "primary process" thought is replaced by "secondary process" thinking of the ego. As will be shown, this critical transition in levels and modes of mental functioning is jointly accomplished by a group of ego functions (Hartmann, 1939a).⁸

Governed by the internal "pleasure principle," infantile functioning seeks to bring about pleasure, avoid unpleasure, and decrease tension (A. Freud, 1965a). It is dominated by the "urgency of wishes, taking the most direct road to wish-fulfillment without taking external circumstances, hindrances, dangers, prohibitions into account" (A. Freud, 1965a, p. 37). The corresponding "primary processes" of fantasy formation, displacement, condensation, and others, and their characteristic lack of synthesis, typify the earliest mode of thought and the id's disregard for reality considerations. Because the infant can independently attain pleasure only through the self-stimulation of autoerotic behavior, the mother provides all other

⁸ Hartmann (1939a) ascribes two meanings to the term "reality principle." In its "broad sense," it connotes a concept of biological adaptation, a relationship to the external world based on the requirements of species--survival and self-preservation. Employed in the present context, in its "narrow sense," it corresponds to a particular set of ego functions. For a further discussion of this point, see Schafer (1970).

satisfactions that exceed his limited capacities and is, therefore, regarded as the first need-fulfilling, or "anacletic" object (A. Freud, 1965a). Of necessity, she offers gratification only at certain times and in specific quantities, thereby confronting the infant with his first experiences of external regulation and frustration. In time, behavior reflecting drive derivatives, as well as expressions of basic bodily needs, come into conflict with reality, and external objects impose another set of restrictions. Still seeking, however, to indulge strong impulses and fantasies with urgency and immediacy, the older infant engages in a prolonged struggle which precedes his ultimate acceptance of the "reality principle." Ego development in the second year of life brings "secondary thought processes," characterized by reason, logic and delay of action into existence, though behavior is still largely under the influence of the pleasure principle and primary process thinking (A. Freud, 1965a). Unpredictable alternation between the two modes of functioning ensues. Only slowly and reluctantly, does the developing toddler exchange his pleasure orientation for a concern with the facts of reality.

The toddler's acceptance of reality is initially encouraged and aided by the love and rewards bestowed upon him in return for his compliance. Later it is furthered by the gratification he himself experiences from having renounced instinctual satisfactions. And throughout the transitional process, it is facilitated by the possibilities for pleasure afforded by developing ego functions (Hartmann, 1950a).

As noted by Hartmann (1939a), the pleasure principle is not to-

tally pre-empted by the reality principle but rather has a continuing existence of its own, albeit progressively modified.

The exercise of every new ego function, and particularly those based on the maturing autonomous apparatuses, offers the child new opportunities for pleasure. With increasing structuralization, the conditions and nature of pleasure change, permitting a "qualitative differentiation of the various categories of pleasurable experiences" (Hartmann, 1939a, p. 47). Some pleasurable feelings, primarily the sexual ones, have a strong somatic reverberation, in contrast, for example, with the pleasurable qualities of aim-inhibited, sublimated activities. All potential avenues of pleasure reinforce the strength of central ego processes and functions. "The pleasure potentialities afforded at the various levels of development by the ego, its functions, and its apparatus, are of great significance for the stability of ego organization, its effectiveness, and the knowledge and extent of its functioning (synthesis, defense, assimilation, learning ability, etc.)" (Hartmann, 1939a, p. 47).

The opportunities for pleasure secondarily offered by functions of the mental and physical ego apparatus play a particularly important role in adaptation to the environment in that "the opening of such new sources of pleasure furthers ego development" (Hartmann, 1939a, p. 46). In other words, each new function, which utilizes the apparatus of the autonomous or conflict-free sphere of the ego, in turn lends access to an entire range of emergent ego functions, thus spurring development onward.

In addition to the continuation of the pleasure principle by way of new ego functions and activities, the direct striving for pleasure never ceases. Pleasures that cannot be satisfied in fantasy are sought in reality. The pleasure principle also continues to function in the service of avoiding unpleasure, by attempting, for instance, to master anxieties aroused by fantasy. Significantly, the fulfillment of both of these pleasure-oriented aims necessitates a turning to the external world (Hartmann, 1939a).

Consideration of the ongoing existence of the pleasure principle accords it a new position in the developmental process. Psychoanalysis, prior to Hartmann, traditionally emphasized the disruptive potential of the pleasure principle for adaptation. However, the pleasure principle encourages the individual to search the environment for ways to find gratification and cope with the fantasized displeasures; thus its role in facilitating mastery of reality can be appreciated (Hartmann, 1956). The pleasure principle also gains prominence through its facilitation of ego development.

The reality principle likewise assumed broader dimensions in Hartmann's thinking. He postulated its serving ego functions not only in their opposition to the pleasure principle but also in their pleasurable aspects. Further, he located the essential purpose of the reality principle in its striving to adapt to the "real" features of external objects and situations (Hartmann, 1956).

Frustration Tolerance and Delay

The advance from the pleasure principle to the reality principle

is widely recognized as dependent on the capacity to postpone gratification, delay motoric discharge of tension, and tolerate frustration (A. Freud, 1965b; Hartmann et al., 1946; Spitz, 1965). The expectation of future gratification of drives and wishes, in accord with external requirements, must substitute for actual satisfaction. Similarly, the inhibition of instinctual aims and/or their displacement onto other goals and objects, must be tolerated.⁹

The question arises as to how the function of delay, the prerequisite for frustration tolerance, and the origin of adaptive behavior is acquired. While id needs press for immediate fulfillment, the secondary thought process of the ego introduces delay, waiting and the postponement of action (A. Freud, 1965b; Hartmann, 1939a; Spitz, 1965). When thinking is interposed between impulse and action, immediate gratification can be suspended. "The ego, by the interpolation of thought processes, achieves a delay of motor discharge.... Freud described thinking as experimental action....In higher organisms, trial activity is increasingly displaced into the interior of the organism, and no longer appears in the form of motor action directed toward the external world" (Hartmann, 1939a, pp. 59-60). The interpolation of thought and of causal thinking in particular, diminishes the compulsion to react immediately to stimuli and thus

⁹Note that the phenomenon of displacement was mentioned above as characteristic of primary process thinking and id functioning. The present reference points to the ego's use of a characteristic of primary process for its own defensive purposes. Displacement is also used by the ego as a "primordial form of learning" which broadens the child's experience and forms the basis for its differentiation and integration. As such, displacement is one of many "Janus-faced" phenomena that have both ego (secondary process) and id (primary process) aspects.

promotes the increasing independence of behavior from environmental imperatives (Hartmann, 1939a). The resultant attenuation of drives in turn allows for increasingly complex mental activity to take place (Spitz, 1965). By means of delay, internal controls replace the external regulation of behavior and the fundamental prerequisite of the reality principle is thereby achieved.

External factors, in addition to ego functions, however, can likewise facilitate the acquisition of delay and the reality principle. Spitz (1965) agreed with Hartmann that external rewards reinforce this step in ego development. Using object relations terminology, Spitz stated that the misdeeds of the "bad" object, who withholds gratification and demands compliance with reality factors, are compensated for by the rewards offered by the "good" object, for doing so. As noted by Hartmann (1950a), the development toward reality acceptance therefore presupposes some degree of object constancy, i.e., some recognition of the constant, independent existence of objects in reality and vice versa.

Because the establishment of the reality principle originates in the functions of delay and frustration tolerance, experiences of deprivation, in addition to gratification, are crucial for building ego structures (Hartmann et al., 1946; Spitz, 1965). Frustrating somatic needs and circumstances inevitably arise in the course of development. Further, developmental progress is also dependent upon externally imposed restrictions of drive satisfaction and wish fulfillment. Their absence precludes satisfactory ego development. It is critical, how-

ever, that the measure of frustration experienced be appropriate to the developmental age of the child, for the timing, intensity and duration of deprivation directly influence the process of structuralization (Hartmann et al., 1946). In sum, it may be said that both the pleasure and the reality principles, gratification and deprivation, and pleasure and unpleasure, play vital roles in fostering development and shaping personality.

Anticipation and Objectivization

Although the reality principle rests on numerous ego functions, Hartmann (1939a) discussed anticipation, objectivization, and delay, in particular, as being those functions involved in the regulation of behavior in accord with reality factors. Relinquishing pleasure in the here and now for a later replacement depends on anticipating future opportunities for pleasure. Hence, by way of anticipation, "a momentary pleasure, uncertain in its results, is given up but only in order to gain in the new way an assumed pleasure coming later" (Hartmann, 1939a, p. 42).¹⁰ The function of anticipation itself depends upon the individual's accurate knowledge of his inner and outer worlds (Hartmann, 1939a).

The function of objectivization denotes the ascendance of objective thinking over a subjective orientation (Hartmann, 1952). The imposition of wishful fantasy onto reality is suspended in favor of an objective reading of the environment. Both objectivization and anticipation thus bring about the increased regard for the external

¹⁰ Passage quoted from S. Freud, "Formulations Regarding the Two Principles in Mental Functioning." Collected Papers, 4, 13-21. London: Hogarth Press, 1925.

world, implied by the reality principle.

Intentionality and Rational Action

As noted above, the emergence of action out of diffuse motor discharge marks the transition from the pleasure principle to the reality principle. The step following inhibition of action and anticipation of the future is "orienting our actions according to it" (Hartmann, 1939a, p. 43). Actions utilize the mental and physical apparatus on the one hand, and intentions, motives and the like on the other. However, the degree to which actions are governed by rational versus irrational factors has momentous consequences for adaptation and the reality principle. In order to evaluate those consequences, it is necessary to ascertain "to what extent is realistic regulation of action determined by intention and rational motivation and to what extent by the state of the apparatus used by the action; moreover, to what extent does an action motivationally or genetically involve irrational forces--that is, instinctual drive--and so on?" (Hartmann, 1939a, p. 87).

"Rational" action implies that an effective method for achieving a desired result has been selected. "Only the choice of appropriate means to a given goal may be called rational" (Hartmann, 1939a, p. 67). Integrally related to adaptation, rational action as well as adaptive behavior are both yardsticks of normal functioning.

"Intentionality" is the ego function responsible for "conscious goal setting" (Schafer, 1970). It refers to the "child's capacity to direct himself toward something, aim at something in perception, attention, action" (Hartmann, 1952, p. 23). As such, intentionality is a prerequisite for the ego's capacity to act rationally. Together,

intentionality and rational action promotes successful adaptation to reality.

Reality Testing

It stands to reason that rational action, like anticipation, depends upon the accurate perception of reality. Means and goals cannot be appropriately matched unless external conditions are correctly appraised. The development of reality testing, i.e., the ego's "capacity to recognize and critically to test the reality of objects" (A. Freud, 1966b, p. 80) establishes an ego function which makes rational action possible. "Sensations arising from the inner world have to be distinguished from perceptions aroused by external stimuli, i.e., reality has to be tested and separated from the products of fantasy before wish fulfillment by means of hallucination is abandoned in favor of purposeful action" (A. Freud, 1965b, p. 172).

Hartmann (1947) observed a reciprocally enhancing relationship between reality testing and action in that "insight into reality guides action and action is an important instrument for the development of insight" (Rangell, 1965, p. 19). In essence, reality testing, in collaboration with other ego functions, helps to potentiate the advance from the pleasure to the reality principle.

A Survey of Defense Mechanisms

Defenses and instinctual processes. The child's accommodation to his social environment necessitates the modification of his natural, id instincts in compliance with adult behavioral norms, while the instinc-

tual tendencies, nonetheless, continue to press for expression (A. Freud, 1965b). A major task of the ego is, therefore, to reconcile the ongoing striving for instinctual gratification with the demands of social reality (A. Freud, 1949).

Certain component drives are modified "more or less spontaneously in the course of natural growth and maturation" (A. Freud, 1965b, p. 175). Most, however, persist and engender several types of conflict. Initially, id impulses come into conflict with the environment. Insofar as the reality principle has been adopted, they subsequently create conflict with the ego as the representative of environmental restrictions. And still later, the ego, in its mediating role, will have to contend with the superego, the ethical and moral regulator of thoughts and actions. At this point in development,

the child then regards the component drives no longer as mere sources of pleasure but scrutinizes them on the basis of their being suitable or unsuitable, acceptable or unacceptable, from the moral and environmental point of view (A. Freud, 1965b, p. 176).

Social adaptation calls for the assumption of a recalcitrant and defensive stance vis-a-vis such natural, instinctual disposition as "greed, demandingness, possessiveness, extreme jealousy, and competitiveness, and wishes to kill rivals and frustrating figures" (A. Freud, 1965b, p. 176). It is the function of the defense mechanisms to assist the ego in its struggle to control or modify instinctual aims while to likewise secure some measure of their fulfillment. If effective, the ego's defenses thereby fashion harmonious relations between the id, superego, and outside world (A. Freud, 1966b).

A. Freud's (1966b) attempt to classify the defenses chronologically has direct relevance to attempts to understand clinical data from a developmental perspective. Correlating the ego's methods of defense with successive developmental stages, A. Freud noted the instinctual nature of the processes of regression, reversal, and turning against the self and hypothesized their existing as early as the actual instincts themselves, or at least as early as the instincts encounter obstacles to their gratification. The operations of these defensive processes would therefore not be dependent upon any particular degree of structural differentiation. By contrast, repressive measures intended to eliminate instinctual urges from conscious awareness could only be instituted following the differentiation of the id and ego, given the secondary process nature of consciousness. Further, projection and introjection, i.e., the removal from the self and the attribution to others of unacceptable impulses and the appropriation of desirable qualities from others, would depend on the subsequent differentiation of the ego from the outside world (i.e., the self from the other) in development.

Lastly, sublimation--the displacement of instinctual aims onto noninstinctual ones, in accord with social values--would minimally presuppose knowledge of those values and, hence, the prior development of the superego.

Due to the contradictions and uncertainty posed by clinical experience and alternate theories to A. Freud's chronology of defenses, she classified the various sources of anxiety which set the defensive processes in motion (A. Freud, 1966b). "Objective anxiety," anxiety

or dread in relation to the outside world, is characteristic of young children whose striving to ward off impulses is not prompted by the ego but by the danger perceived in the environment. The underlying motive for warding off impulses is to avoid transgressing parental prohibitions and the feared consequences thereof. In the case of "superego anxiety," the instinctual gratification is repressed by the superego. The ego submits to its fear of the superego and obediently activates defensive operations. Finally, "instinctual anxiety" connotes "dread of the strength of the instincts" engendered either by excessive instinctual demands or by insufficient reinforcement from the environment and/or the superego of the ego's opposition to id impulses.

"Objective" and "superego" anxiety both avoid secondary displeasure, in one case, from punishment imposed by the outside world, in the other case, from guilt arising from the unconscious as a consequence of instinctual gratification and pleasure. Hence, defenses prompted by either of these two motives conform to the reality principle.

The three types of anxiety which motivate defense--objective, instinctual, and superego anxiety--parallel the course of the instincts cited above, as they successfully encounter opposition from the outside world, the ego, and the superego. From a structural point of view, the ensuing disharmony in the ego's relation to outer reality, the id and the superego, was recognized by A. Freud (1966b) to represent the progressive emergence of "external," "internal," and "internalized" conflicts, respectively, in development.

In addition to defending against instincts, the ego also promotes defense against affects associated with instinctual impulses. Regardless of their pleasurable or painful nature, their relation to prohibited instincts induces the ego to ward them off.¹¹

Defenses and external reality. The defensive operations discussed thus far reflect the ego's efforts to avoid unpleasure that arises internally in relation to id impulses and their corresponding affects. The ego also, however, seeks to defend itself against unpleasure that originates in the outside world (A. Freud, 1966b). As previously discussed, the young child lives according to the pleasure principle and only gradually learns to tolerate the frustrations imposed by the environment. In the interim, however, he is as yet helpless to actively oppose reality, modify it in keeping with his own purposes, or take leave of it; neither can he understand its logical reasoning and thereby comply with it. Hence, the immature and dependent ego "endeavors in all kinds of ways to defend itself against the objective unpleasure and dangers which menace it" (A. Freud, 1966b, p. 70).

In contrast with the defenses against the instincts and in accord with the reality principle are more primitive ego defenses which are governed simply by the pleasure principle and are aimed at the sometimes disappointing external world. The ego employs the mechanism of denial to renounce painful aspects of reality. Through "denial in

¹¹ Additional motives for defense emerge in adult life. The ego's need for synthesis calls for harmony between opposing instinctual tendencies and thus impels defensive operations (A. Freud, 1966b).

fantasy," "the child's ego refuses to become aware of some reality... turns its back on it, denies it, in imagination reverses the unwelcome facts" (A. Freud, 1966b, p. 30). Thus fantasy formation transforms an unpleasant reality into a more acceptable one and spares the ego anxiety. The infantile ego utilizes its ability to deny not only in fantasy but also in words and actions. In games of impersonation and types of play motivated by the need for denial, the child uses external objects to dramatize his wish-fulfilling reversal of reality situations.

Concomitant with their widespread appearance in early childhood, "denial in fantasy" and "denial in word and act" are both subject to restrictions from without. The child must keep both within the prescribed limits and be able to smoothly shift from denial to behavioral compliance with the expectations and demands of reality.

The use of denial to reject painful aspects of reality signifies a normal phase of ego development. Although denial is incompatible with reality testing, the young child is not disturbed by the resultant inconsistencies. Distressing facts are repudiated only in the affective realm, such that pleasure then prevails over unpleasure but reality testing remains intact. While the ego's reliance on denial in early childhood is not pathogenic, it nonetheless has significant consequences for ego and character formation.

At a certain point, the developing ego is organized and integrated by means of the synthetic function. It does away with denial because reality testing has been strengthened, and dominates the affective realm, and/or because the mature ego is more rooted in reality and

values fantasy less than did the infantile ego. Reversal of reality through denial is pathological in later life and reappears only if the relationship to reality has been grossly disturbed through the cessation of reality testing.

A third defensive operation aimed directly against the external world, rather than the instincts, is "restriction of the ego" (A. Freud, 1966b). A more primitive defense mechanism than denial, it is a measure taken by the somewhat older child whose expanded motor and psychic functions permit him to take flight from a distressing situation. Instead of perceiving a disagreeable stimulus and repudiating it, the ego will "refuse to encounter the dangerous external situation at all" (A. Freud, 1966b, p. 93). Through self-imposed restrictions, the child drops particular activities that have, in the past, caused him discomfort such as feeling competitive but inferior to others or fearing their jealousy and aggression in response to his successes.

A comparison between restriction of the ego and actual neurotic inhibitions can clarify the nature of the defensive process in the former. A neurotically inhibited individual avoids certain activities because of the relation of these to an underlying, instinctual wish or impulse. While the individual thus avoids externally perceived dangers, he is actually defending against the inner threat and unpleasant consequences of acting upon a prohibited impulse. "Restriction of the ego," by contrast, attempts to prevent, in the present, the resurgence of pain from external situations that caused pain in the past.

Like denial, ego restriction, as a means of avoiding unpleasure, typifies a normal stage of ego development, but may, nonetheless, lead to detrimental consequences for development. As a result of restriction of the ego, entire spheres of activity may be neglected. Compensation for abandoned interests may take the form of extensive involvement in alternate pursuits. Though the ego may thereby develop certain given capacities to their fullest potential, it may simultaneously fail to attain new skills and functions, critical for development. The resulting unevenness in ego function can disrupt the normal developmental course. In addition, a child who has not learned to tolerate displeasure may chronically resort to flight, repeatedly avoiding disagreeable situations. Ego resources may thereby be impoverished:

When the ego is young and plastic, its withdrawal from one field of activity is sometimes compensated for by excellence in another, upon which it concentrates. But, where it has become rigid or has already acquired an intolerance of unpleasure and so is obsessively fixated to the method of flight, such withdrawal is punished by impaired development. By abandoning one position after another it becomes one-sided, loses too many interests, and can show but a meager achievement (A. Freud, 1966b, pp. 102-103).

Defenses of dual purpose. It follows from the foregoing discussion of defense mechanisms that locating the source of perceived danger, as internal or external, has great import for assessing the nature of defensive processes and determining core conflicts. This task becomes more complicated, however, in relation to defenses such as "identification with the aggressor," which are directed sometimes

at internal and sometimes at external threats.

Identification with the aggressor represents one stage in the development of the superego. It entails the child's introjection and internalization of the attitudes of external authority figures. Given that the child identifies with the adults' criticism of his instinctually motivated actions and their threats of punishment, his identification with the aggressor subserves his efforts to master instinctual drives. At this intermediary phase of superego formation, the reproachful stance has not, as yet, been fully appropriated to the self and the capacity for self-criticism has yet to develop.

Alternately employed against anxiety producing objects in the environment, rather than id processes, identification with the aggressor assumes several forms. The individual may master his dread of the external object by personifying him. As sometimes seen in games of impersonation, the child himself becomes the aggressor by imitating him, thereby transforming his fear into a pleasing sense of security. In another manifestation of identification with the aggressor, used defensively against threatening objects, the child identifies "not with the person of the aggressor but with his aggression" (A. Freud, 1966b, p. 112). Rather than impersonate his parent, teacher, or doctor, etc., the child imitates the aggression and behaves aggressively himself. Alternately, he may take on other characteristics of the threatening external object.

In all the above instances, the child "introjects some characteristic of an anxiety object and so assimilates an anxiety experience

which he has just undergone" (A. Freud, 1966b, p. 113). Yet beyond enacting an identification with the aggressor, the child is also transforming a passive experience into an active one. He shifts from the role of victim to that of the attacker. Children often utilize this second mechanism of turning passive into active in play (S. Freud, 1920). They master recent unpleasant, frightening, or traumatic experiences by taking revenge, in play, on a substitute object.

In a final type of identification with the aggressor, an individual may become aggressive toward someone from whom he anticipates attack in the future. A. Freud (1966b) cited the example of a child patient who became increasingly aggressive toward her immediately before communicating material which he regarded as dangerous. He had introjected the aggression of adults in relation to whom he felt guilty, and forestalled the dreaded punishment by transforming an anticipated passive experience into an active one.

Outcomes of defense for adaptation and development. One measure of the success or failure of defense mechanisms is their effectiveness in controlling id drives and the protection they thus afford the ego against unmanageable and disruptive instinctual forces. Yet, in addition to their inhibitory and restrictive role, ego defenses also further adaptation. A. Freud (1965b) objected to other authors labelling particular defenses as "healthy" or "pathological" according to their inhibitory versus adaptive consequences for development, arguing that

All defense mechanisms serve simultaneously internal

drive restriction and external adaptation, which are merely two sides of the same picture. There is no antithesis between defense and development, since the strengthening of the ego and its defensive organization is itself an essential part of the child's growth and comparable in importance to the unfolding and maturation of the drives (A. Freud, 1965b, p. 177).

Instead of distinguishing between "'pathological' defense mechanisms" and "'healthy' adaptive mechanisms," A. Freud (1965b) proposed differentiating between the varying outcomes of ego defenses. She had previously commented, for example, on the interference of defense mechanisms with ego functioning (A. Freud, 1945). As noted above, the mechanism of denial, when used beyond its appropriate developmental phase, is not consistent with the function of reality testing. Similarly, repression opposes memory functions, and "splitting of the personality" into a good and bad self, thwarts the ego's synthetic strivings. Whether such defenses have adaptive or detrimental consequences for development rests not on the specific defense employed but rather on numerous quantitative and qualitative factors, several of which A. Freud (1965b) enumerated. First, despite the approximate nature of the chronology of the defense mechanisms, the chronology nonetheless dictates appropriate developmental stages for their emergence and use in development. The early appearance or prolonged usage of the defenses is likely to lead to pathological results. Second, any defense, activated against a particular danger, should be suspended when the danger ceases to exist. Third, a stable organization of defenses depends upon the employment of different mechanisms to ward off different internal and external dangers, such that no one defense

should dominate ego functioning to the exclusion of others. And last, excessive drive inhibition, regardless of the mechanism utilized, will distort development. Thus, the age-adequacy, reversibility, balance, and intensity of the defense mechanisms are critical variables in the production and, therefore, assessment of their potential pathological outcomes.

Consistent with his emphasis on adaptation and his notions of the multiple aims of single processes, Hartmann (1939a) recognized the adaptive and reality-oriented nature of defenses, and prescribed their inclusion in the description of any defense. For evaluating the results of defensive operations, he stressed the need for inquiring into their effects on ego functions not directly involved in the conflict. Further, in examining the determinants for the choice of defenses against drives, he discovered the significance of the autonomous apparatus and the early infantile means of instinctual mastery. Intelligence, for example, exerts a general, inhibitory effort by promoting the delay of motor discharge. He therefore assumed that "an autonomous intelligence factor...as an independent variable, codetermines the choice and success of the defense process" (Hartmann, 1939a, p. 14). Thus, the later defense processes themselves will influence and be influenced by the maturation and exercise of the apparatus of the conflict-free sphere of the ego, which serve adaptation. For example,

When a defense against instinctual drives results in heightened intellectual achievements, this shows that certain forms of conflict solution may involve biological guarantees of an adaptation process to external reality (Hartmann, 1939a, p. 14).

Hartmann's hypotheses about defense processes effectively illustrate one subset of intrasystemic relations which involve both the conflictual and nonconflictual spheres of the ego and are essential for any general or specific study of ego functioning, development, and adaptation.

Autonomous Functions

Originating in the early undifferentiated phase, the autonomous apparatus and functions constitute the genetic precursors of the ego. As the autonomous ego apparatuses mature via physiological growth and promote higher levels of functioning, the nonconflictual processes of the ego retain a prominent role in development. Fundamentally oriented toward reality, the autonomous functions serve adaptation while simultaneously facilitating all other ego functions. In turn, the total array of ego functions play a momentous part in facilitating the development of object relations.

The theoretical premises of the primary autonomy of the ego have already been presented above from both an adaptational and intrasystemic point of view. Further, specific aspects of their interdependence with object relations will be subsumed within the section on early object relations development. Presently, therefore, only several autonomous functions, singled out by A. Freud--for their role in advancing the reality principle--and by Hartmann--for their primacy in regulating behavior--will be briefly discussed.

Locomotion. In addition to the ego functions reviewed above, whose performance facilitates the transition from the pleasure prin-

ciple to the reality principle, the effects of numerous autonomous functions likewise ensure critical advances in development. When control of the child's motoric behavior passes from irrational id forces, to the reality oriented ego, adaptation to reality progresses (A. Freud, 1965b). Motoric functions are practiced in keeping with the demands of the external situation. Motor activity also comes to serve the reality principle in that the emergent capacity for locomotion affords the child the opportunity to physically explore broader segments of reality (Mahler, 1968a).

Memory. The memory apparatus, whose functioning, unlike the motor apparatus, is inferred from behavior rather than directly observed, amasses and stores sensations and perceptions in the form of memory traces. Memory storage is a prerequisite for the ability to act in accord with experience and to anticipate accurately. The significance of the autonomous function of perception itself for ego development will be examined below in the context of Spitz' theory of early object relations.

Intelligence and language. Last among the autonomous functions linked by A. Freud (1965b) to the establishment of the reality principle is speech and the emergence of reason and logic, i.e., secondary thought processes. Maintaining that secondary process thinking implies an understanding of cause and effect relations, A. Freud concurred with the notion that secondary thought processes, and speech, permit the child to interpose "tried action" and reasoning between his

experience of an instinctual wish and his acting upon it. Summarizing the work of Katan (1961), she pointed to verbalization as a prerequisite for secondary process thinking. Additionally, she noted Katan's view that the verbalization of external perceptions precedes verbalization of the content of the inner world, and that the latter promotes both reality testing and the ego's control over id impulses.

Spitz (1965) noted that thought served both the pleasure principle and the reality principle. By "channelling discharge into directed volitional action," thought processes allow for acceptable drive expression, thereby satisfying environmental regulations while also guaranteeing opportunities for pleasure.

Hartmann's schema of ego development and functioning attributed to intelligence, a group of ego functions, which, in part, are genetically determined, "first place among the ego's regulating factors" (Hartmann, 1939a, p. 72). Seen as performing a "superordinate organizing function" (Hartmann, 1939a, p. 73), intelligence does not replace, but rather organizes, other mental functions and thereby contributes to the synthetic aims of the ego.

Intelligence furthermore serves the tasks of differentiation and adaptation. The differentiation processes promoted by intelligence are reflected in the formation of mental agencies such as the super-ego; in the separation of perception from imagery and cognition from affect, in the expansion of realms of perception and action, and in such functions as reality testing and judgment. Intelligence furthers adaptation in that its emergence "is a decisive step in the develop-

ment of purposive behavior" (Hartmann, 1939a, p. 61). Also, it introduces new functions and accomplishes ego tasks which, prior to its development, were performed by more primitive means, for example, crying, screaming, and motoric tension discharge.

The functioning of intelligence can foster a "better mastery of the environment...and...a better control of one's person" (Hartmann, 1939a, p. 70). The function "objectivization," for example, increases regard for other people and thereby affords a more adaptive response to external situations. Its "plasticity" thus renders intelligence "superior" for meeting new demands and challenges. In addition to solving problems, the intellect also poses them. Intelligence considers, for example, whether to adapt to a situation by altering the self to accommodate to it (autoplastic adaptation) or by intervening to change it (alloplastic adaptation). Its inhibiting capacity, i.e., its capacity to "control and steer...instincts and instinctual drives" (Hartmann, 1939a, p. 60) exemplifies its autoplastic potential and its facilitation of inner drive control. With reference to promoting increased inner control, the ability to anticipate and interpolate thought between impulse and action makes delay of needs and action possible. As a result of interpolated thought, and causal thinking in particular, the child, or adult, is freed from the compulsion to react to immediate stimuli and thus gains increasing behavioral independence from environmental stimulation (Hartmann, 1939a; et al., 1946). Spitz (1965) likewise pointed to the dual internal and external benefits of thought processes. Inhibited or displaced aggression motivates

exploration of the physical world. Thus, by modifying drive aims and objects, thought not only increases internal regulation but also permits mastery of the environment.

To sum up, in fostering both internal and external mastery,

Intelligence involves an enormous extension and differentiation of reaction possibilities, and subjects the reactions to its selection and control. Causal thinking (in relation to perception of space and time), the creation of means-end relations, and particularly the turning of thinking back upon the self, liberate the individual from being compelled to react to the immediate stimulus (Hartmann, 1939a, p. 60).

It is not always possible to separate and distinguish between the various functions of intelligence such as understanding, judgment, and reasoning. Nonetheless, any disorder of intellectual functioning affecting selective control, time perspective, reality testing, objectivization, abstraction, or the ability to delay, leads to specific failures in adaptation.

Automatization. Theories of ego psychology and development have generally accepted that the development of (autonomous) ego functions which directly utilize somatic equipment depends on their repeated practice as well as on their intact constitutional substrata. "Automatization" (Hartmann, 1939a) refers to the process by which the functions of thought, motility, language, perception, etc., become automatic through practice. In other words, exercise integrates and "automatizes" the physical and mental components of ego activities such as problem solving, walking, speaking, writing, etc., to the point where they are performed by habit rather than by a conscious, step-by-step procedure. For example, the motor apparatuses in adults

are organized for certain achievements. In well-established achievements, they function automatically. The integration of the somatic systems involved in the action is automatized, and so is the integration of the individual mental acts involved in it. With increasing exercise of the action its intermediate steps disappear from consciousness (Hartmann, 1939a, pp. 87-88).

The process of automatization demonstrates the crucial fact that the ego is not completely flexible in its functioning, despite the plasticity of its intellectual capacities. Neither, however, is ego functioning completely rigid, despite the habituated performance of well-established modes of thought and action (Hartmann, 1939a). Firstly, the use of automatized functions implies a certain degree of adaptedness, inherent in their prior establishment. And secondly, the ego preserves varying degrees of latitude for adapting the particular activity to the specific situation at hand. It is precisely the combination of "rigidity" and flexibility, each moderated by the ego, which renders it an effective agent of adaptation to reality.

Integrative Functions

The integrative or organizing activities of the ego have been defined by their task of synthesizing the young child's random and disorderly array of "chaotic impulses and attitudes" into a structuralized entity which, during the process of synthesis, takes on its own unique personality characteristics (A. Freud, 1965b). As maturation and development progress, each advance in ego functioning must be integrated with existing structures and capacities. The synthesis of each new achievement and attitude effects some alteration of the

existing structure and contributes to the ongoing evolution of the individual personality.

Grounding his theories in a natural science framework, Hartmann (1939a) used the biological concept of the "lawful correlation of the individual's parts" (p. 40) as the basic prototype for the particular "fitting together" of parts of the human personality. As such, this correlation of parts includes psychophysical relations and is accomplished in the psychological domain by the "synthetic function." Consistent with a biological perspective, the processes of adaptation and "fitting together" are interdependent, with the "fitting together" of certain psychological factors usually constituting the prerequisite of an adaptational process, and visa versa. While the range of synthetic factors which regulate personality functioning is not completely known, most are thought to belong to the ego and some to the superego, with a portion of the former ascribed to the regulating functions of the conflict-free sphere (Hartmann, 1939a).

The synthetic function--the psychological "fitting together" of personality factors--regulates the individual's relations with his environment and maintains intrapsychic balance between the mental agencies (Hartmann, 1939a). In the course of development, this more highly differentiated form of regulation both replaces and complements earlier, more general and more primitive regulatory processes. When the synthetic function is impaired, the more general and primitive forms of regulation must operate in its stead. Various limitations and/or distortions of development ensue given that the

synthetic or organizing function of the ego augments the individual's increasing independence from the immediate impact of internal and external stimuli. This developmental trend toward increased internalization and centralization of control in the superordinate regulating functions will be further explored in the following section on the interdependence of ego mechanisms and object relations.

Ego Development and Object Relations

Hartmann and A. Freud view object relations as a superordinate ego function which emerges in direct relation to drive development. Representing later theoretical trends, Mahler and Spitz conceive of object relations not as merely dependent on need and drive satisfaction but rather as a central line of development, significant in its own right. Sharing the latter theoretical stance, this author will devote the section immediately following to explicating the unfolding of early object relations as conceptualized by Mahler and Spitz. Relevant to the topic of ego development at hand, however, are the ways in which Hartmann and A. Freud conceived of object relations as an outgrowth of drive development and as a primary function of the ego. In their discussions of object relations, they have offered a schema of early phases, delineated interactive aspects of object relations with other ego functions, and highlighted the developmental significance of particular ego mechanisms which are rooted in object relations.

Hartmann's view of object relations as an ego function is re-

flected in his reference to self-object differentiation and to the progression from narcissism to true object relations, with its corresponding sequence of object-related danger situations, as "aspects of ego development," along with the demarcation of ego and id, the transition from the pleasure to the reality principle, and the emergence of secondary process thinking (Hartmann, 1952). In her Diagnostic Profile, A. Freud (1965b) subsumed the growth of object relations under the general category of drive development, defining it in terms of shifts in direction and distribution of libidinal energy cathexes. The phases of object relations development, briefly sketched by Hartmann and A. Freud, follow the child's relationship to significant objects with respect to drive investment (cathexes) and drive gratification by the objects.

Hartmann (cf. Blanck & Blanck, 1974) and A. Freud (1965b) outlined three stages of early object relations. In the objectless state of primary narcissism, biological unity exists between mother and child. As the self and the environment are, as yet, not distinguished, only the self is libidinally invested and the need-satisfying breast (or bottle) is experienced as part of the self. Thus the child interacts with the environment from the outset but is not, initially, psychologically oriented toward the object as an object (Hartmann, 1939a). In the subsequent phase of the "part object...or need-fulfilling, anaclitic relationship," the object begins to exist for the infant but only as a need-gratifier. The mother is perceived only in terms of her role in relation to the child's needs and wishes.

The relationship is "based on the urgency of the child's bodily needs and drive derivatives and is intermittent and fluctuating, since object cathexis is sent out under the impact of imperative desires, and withdrawn again when satisfaction has been reached" (A. Freud, 1965b, p. 65). While prior to the third phase of "object constancy" the egocentric infant does not perceive the object as having a separate existence and understands the object's behavior only in terms of the satisfaction or frustration of pressing needs. When "object constancy" is achieved, the infant can maintain an inner image of the object, irrespective of his need state.

Failures or disruptions in each of the above stages of object relations has pathological consequences for object relations and ego development as well (A. Freud, 1965b). Interferences with the early biological tie of primary narcissism, originating in the infant or the environment, leads to separation anxiety. The mother's inability or failure to reliably fulfill needs and offer comfort precludes adequate individuation. In general, unsatisfactory libidinal relations prevents the necessary fusion of libidinal and aggressive drives resulting in an inordinate degree of unmodulated aggression and destructiveness. Each adverse outcome impedes the expected progressive advances in both object relations and ego development.

Tracing the growth of object relations in accord with drive development beyond these three initial stages of the oral phase of psychosexual development, A. Freud delineated the ambivalent object relationship of the anal-sadistic phase characterized "by the ego atti-

tudes of clinging, torturing, dominating, and controlling the love objects" (A. Freud, 1965b, p. 65) and the phallic-oedipal phase, characterized by exhibitionism, possessiveness of the opposite-sexed parent, and jealousy and rivalry with the same-sexed parent. The latency period marks the postoedipal decline of drive intensity, the sublimation of drives and drive derivatives, and the transfer of libido from parental figures to peers, groups, and other authority figures. Finally, the preadolescent and adolescent stages are likewise conceptualized in accord with the re-upsurge of drives within the pre-pubescent and pubescent phases of development.

Hartmann et al. (1946) discussed the interactions between the sequential evolution of early object relations and the progressive steps in other areas of ego formation. During the first six months of life, maturation of the ego apparatus promotes head turning, searching, anticipation and recognition, all of which are critical for furthering the infant's burgeoning attachment to the mother (or maternal substitute). From early on, the infant's comprehension of the maternal communications depends on affective as well as cognitive ego processes. The consolidation of the body ego is critical for the differentiation of self from object (Hartmann, 1950a). The body ego is formed as the functions of those body parts which provide contact with the environment are brought under the increasing control of the ego. Self-demarcation and the capacity for objectivity are both acquired via the relationship with the object and, in turn, are prime contributors to the establishment of object constancy. Further, the attain-

ment of object constancy can be understood not only in terms of the libidinal mother-child relationship and need satisfaction but also from the perspective of ego maturation and cognition, i.e., the appreciation of the constancy and independent existence of the inanimate object (including the "permanence of objects" in Piaget's sense) which is directly related to the formation of an ongoing, mental representation of the human object (Hartmann, 1952).

The development of language is but one of many ego functions learned in the context of object relations. All learning is, in fact, dependent on environmental responses. Sufficient ego maturation and the experience of satisfaction through mastery are additional variables decisive for learning.

The ability to withstand deprivation, a further prerequisite for the ego's learning capacity (Hartmann et al., 1946), is, in part, environmentally determined. Experiences of deprivation which entail the denial of demands and the imposition of restraints foster critically needed frustration tolerance. Such deprivation, however, necessarily elicits aggression and ambivalence toward the primary object(s), due to an imbalance between aggressive and libidinal strivings, and can threaten the stability of ego functions. Careful consideration must therefore be given to the relative quantity, quality and timing of both gratifying and depriving experiences.

The ego processes of imitation, identification, and internalization are grounded in the child's libidinal ties to significant objects and have momentous consequences for learning and all of ego develop-

ment. The earliest forms of learning are accomplished through identificatory processes which are rooted in the primitive impulse toward incorporation and vary with the given developmental level (Hartmann et al., 1946).¹² Identificatory mechanisms reflect the beginnings of "internalization" whereby "...reactions which originally occurred in relation to the external environment are increasingly displaced into the interior of the organism" (Hartmann, 1939a, p. 40). Internalization, in other words, represents "the process of making part of oneself that which was formerly external" (Blanck & Blanck, 1974, p. 4). Consequently, the disruption of internalization processes will likewise disrupt the adaptive capacities typically attained through internalization. Thus, while the processes of identification and internalization are directly mediated through object relations, their eventual effect is to increase the child's distance and independence from his environment. In time, progressive internalizations are organized and structured into an "inner world" which constitutes a "central regulating factor" interpolated between input (sensory-receptor) and output (motor-effector) processes (Hartmann, 1939a). Individual differences between infants' "inner worlds" reflect variables such as the breadth of the infant's subjective world and the degree of his sensitivity to experience. The intervening activity of the inner world provides the developing child with increasing degrees of freedom from his needs and from other impinging stimuli.

¹²Hartmann et al. (1946) considered the defensive use of identification as secondary to its primary function of promoting early personality formation.

Similarly interested in the child's social adaptation, A. Freud (1965b) traced the functions of imitation, identification and introjection in the prerequisite internalization of drive control. The advances from the pleasure principle to the reality principle and from primary to secondary process mental functioning, crucial for the internal regulation of behavior, are thus facilitated by the ego mechanisms of imitation, identification and introjection.

Imitation, the easiest and most primitive of these ego mechanisms, begins in infancy and increases with the child's broadening awareness of the object world. By imitating parental attitudes and behaviors, the child tries out the role of the powerful and admired figures who control need and drive gratification according to rules not yet comprehended by the child. Identificatory processes are based on the child's wish to change himself into the parents' image. Provided that the early imitations have been pleasurable, he identifies with the parents' social ideals, transferring them from the external to the internal world. Once introjected, the parental norms form the basis of the child's ideal self, an important forerunner of the superego. Such identifications allow the child to experience anew the earlier unity which existed with the mother, prior to self-object differentiation. Finally, the introjection of the external, parental authority transforms the social norm "from the status of a desirable ideal to an effective, actual legislator, the superego" (A. Freud, 1965b, p. 174). The superego then becomes an internal regulator of behavior, replacing the former dependence on and fear of the parents

which served the regulatory function. It is the superego, with the ego as its agent, which thenceforth rewards or punishes obedient or noncompliant behavior with feelings of "well-being and self-esteem" or with "pangs of conscience and feelings of guilt" respectively (A. Freud, 1965b, p. 174). For some time, however, the internal legislation of the superego will need the reinforcing support of the parental authority.

To reiterate, the crucial link implied between object relations and other spheres of ego development, the ego mechanisms responsible for the internalization of parental standards for drive control are motivated by the child's wish to preserve his strong ties to the parents and to gain their acceptance and approval. Faulty internal regulation and socialization can result from identificatory processes disrupted by failures in the development of higher ego functions and by interferences with the positive affective bonds such as separation, rejection, or excessive deprivation--necessary for parental identification. Alternately, the parents' failure "to act as limiting agents to drive satisfaction, thereby initiating the child's own ego mastery of the id" or "to provide the patterns for identification which are needed for building up an independent structure" (A. Freud, 1965b, p. 46) may also limit the child's capacities for control and social adaptation.

In sum, the development of object relations and of overall ego functioning are intricately interwoven so that aversive organic and/or environmental influences on object relations or any aspect of ego

formation brings about negative consequences in a complex, multitude of interrelated personality sectors.

THE EMERGENCE OF OBJECT RELATIONS

Theoretical Foundations

The following model of early object relations development is an integration of the detailed observational investigations and theoretical conclusions of Mahler (1968a; et al., 1975) and Spitz (1965). Points of similarity and divergence in their formulations will be highlighted.

In this presentation, in a manner consistent with the ideas of Mahler and Spitz, the development of object relations is conceptualized in terms of progressive phases and subphases, each characterized by its own unique contribution to psychological growth. No phase or subphase is completely outgrown, but rather, the intrapsychic and behavioral concomitants of each phase overlap considerably with those of the next. Descriptive similarities exist, therefore, between the different stages. Nonetheless, characteristic "clusters" of behavioral phenomena can be used to distinguish each phase from those that precede and follow it (Mahler et al., 1975).

Object relations is herein viewed as a central line of development, having a significant effect on all aspects of personality formation, and interacting with other central aspects of ego development. From an initial state of total undifferentiation, object relations develop via a progressive route that involves the gradual separation and differentiation of the self and is marked by the inception of identity formation

and libidinal object constancy (Mahler et al., 1975; Spitz, 1965).¹³ The intrapsychic "separation-individuation" processes (Mahler, 1968a) represent two distinct but closely interrelated developmental lines. "Separation" processes center on the child's creation of differentiated self and object representations, via an increasing awareness of separateness from the mother (or maternal figure).¹⁴ In turn, processes of "individuation" involve the development of a sense of self through the growth and exercise of autonomous ego functions.

The attainment of "separation-individuation" by way of close reciprocal mother-child relations is the sine qua non of intact personality functioning. Without the orderly passage through the progressive phases and subphases of separation-individuation, numerous developmental disturbances associated with faulty ego functioning and disturbances in object relations are likely to ensue. The ongoing interdependence and relatively even development of drive, ego, and object relations leads to the gradual demarcation and independent functioning of the self. Psychoanalytic investigators of early development have widely recognized the "multiform and complex circular interaction between the shifting and progressive drive development, the maturing ego, and the separation-individuation process, whose result is the differentiation of self and object relations" (Mahler, 1968a, p. 219). In agreement with Spitz (1965), A. Freud also stressed the inherent

¹³The author's use of the term "libidinal object constancy" will be discussed below.

¹⁴Henceforth, "mother" should be taken to refer to the primary maternal figure, be it the biological mother or a substitute.

interplay and inseparability of these three central spheres of development. Referring to Spitz, she noted that

He does not content himself with tracing the infant-mother relationship on the one hand and ego growth on the other, but demonstrates step-by-step how every advance in ego functioning and awareness is placed in the service of the infant's libidinal processes to alter and shape them, both libido and ego interacting at the same time with the responses of the mother (A. Freud, 1974, pp. 9-10).

Both Mahler (1968a; et al., 1975) and Spitz (1965) subdivided the history of early object relations into three major stages. Mahler conceptualized them as the phases of "Normal Autism," "Normal Symbiosis," and "Separation-Individuation," with the latter consisting of four subphases. Spitz conceived of them as "The Preobjectal" or "Objectless Stage," the stage of "The Precursor of the Object," and the stage of "The Establishment of the Libidinal Object." Like two sides of a coin, Mahler's developmental schema traces the intrapsychic state of the emergent self vis-a-vis the external object world (represented by the mother), while Spitz's traces the evolving mental representation of the primary (maternal) object. Both conceptualizations suggest that the differentiation of self and object and the parallel delineation of separate, consolidated self and object representations are the hallmarks of normal object relational development. The theoretical synthesis that follows outlines the unfolding of these critical processes.

PHASE ONE: EARLY PRECURSORS OF SEPARATION-INDIVIDUATION

The "Normal Autistic" or "Objectless Phase"--and the phase of

"Normal Symbiosis" or of "The Precursor of the Object"--is each characterized by a lack of differentiation between self and object, ego and id, and may be seen as the "forerunners" of the "separation-individuation" process (Mahler et al., 1975). Further, they not only precede self-object differentiation but contain within them the crucial prerequisites for later development. As will be demonstrated, the infant's failure to progress beyond normal autism and/or to establish a satisfactory psychological dependency ("symbiosis") on the mother will disrupt and distort the developmental course of separation-individuation.

Normal Autism and Objectlessness

The term "Normal Autism" is an evocative term used to depict the state of the sensorium in the first weeks of postnatal life (Mahler, 1968a; et al., 1975). For the neonate external stimuli are, for the most part, screened out by an innate insensitivity ("stimulus barrier") and sleep-like states predominate. The infant awakens only under the press of need-tensions and readily returns to sleep following satiation.

Resembling a "closed monadic system, self-sufficient in its hallucinatory wish-fulfillment" (Mahler, 1968a, p. 7), the infant is unaware of the mother's ministrations. He "seems to be in a state of primitive hallucinatory disorientation, in which need satisfaction belongs to his own omnipotent, autistic orbit" (Mahler, 1968a, pp. 7-8). Consistent with this view, Spitz's term "Objectless Phase," reflects

the object's nonexistence for the neonate.

It has been suggested (Mahler et al., 1975) that the "Normal Autistic" phase is comprised of two substages, corresponding to the two stages of "primary narcissism" proposed by S. Freud (1914) and later discussed by Hartmann (1939a) and A. Freud (1965b). In the second substage, which overlaps the beginning of the symbiotic phase, the infant begins to faintly recognize that need-satisfaction originates from an external source. As maturation unfolds, maternal caretaking leads the infant into ever-increasing sensory contact with and awareness of the environment.

The lack of distinction between self and other in this early "undifferentiated phase" (Hartmann, 1939a; et al., 1946) is coupled with a similar lack of distinction between ego and id, conscious and unconscious. The broader term of "nondifferentiation" has been alternatively proposed to characterize this state and encompass, in addition, the apparent absence of differentiation between mind and body, different body regions, inside and outside, drive and object, and the generally insufficient organization of perception, activity, and functioning (Spitz, 1965).

Physiological Mechanisms

The human infant in the first month of life functions primarily as a biological organism, dominated by physiological rather than psychological processes. Instinctual responses to stimuli occur on the level of reflex. Given the primitive, unintegrated ego apparatus and

purely somatic defenses, comprised of discharge and overflow, the task of the autistic phase is to achieve homeostatic equilibrium and facilitate physiological growth in the new extrauterine environment (Mahler et al., 1975). The possible loss of physiological homeostasis poses the major danger to the neonate during this phase.

Certain innate, neurophysiological patterns form the basis of behavior from birth on. They account for reflexive actions and for primitive prototypes of affective and sensory responses. As neural development proceeds, physiological maturation and individual patterns of response interact to produce the rudiments of personality. The ways in which the emerging functions master internal and external stimuli determine, in time, the structural organization of the ego. Thus, as the developing organism is exposed to stimulation there results a series of progressive functional and structural modifications which define the growing ego. In sum, the initial "undifferentiated state" is followed by "the slow continuous unfolding of functions, distinct drives, gradations of structure; i.e., of psychological processes emerging gradually from the physiological prototypes which underlie them" (A. Freud, Preface to Spitz, 1965, p. viii).

Affective Prototypes and Interchange

Prior to discussing the primitive affective and perceptual processes accompanying the "Normal Autistic" or "Objectless" phase, it is crucial to appreciate the prime significance of the affective context of the mother-child relationship, within which all learning and

development takes place.

Affect dominates the infant's experience during the early months of life. Moreover, affect has been seen as leading development in other spheres of personality.

...the affective experience in the framework of mother-child relations acts in the first year as a trailbreaker for development in other sectors The unfolding of affective perception and affective exchanges precedes all other psychic functions; the latter will subsequently develop on the foundations provided by the affective exchange (Spitz, 1965, p. 140).

Early communication between mother and child is generated by affect and nonverbally expressed through "circular, reverberating processes." The infant's affect originates in a need state and is displayed in diffuse, random, nondirected, vocal and motor behaviors. The mother's emotional comprehension of these affective signals motivates her caretaking response to his needs. Alternately, it is possible to view the mother as the starting point of the ongoing affective exchanges; her attitudes and affects form the "emotional climate" of the infant's existence and he responds affectively to them. Therefore, they "serve to orient the infant's affects and confer the quality of life on the infant's experience" (Spitz, 1965, p. 99). Further, it is the mother who transmits the attitudinal influence of others in the environment to the infant.

In brief, affect plays a major role in a continuous, two-way communication between mother and infant. "Consciously or unconsciously, each partner in the mother-child couple perceives the affect of the other, a continuing reciprocal, affective exchange" (Spitz, 1965, pp.

139-140). Each makes a unique contribution, complementing and providing for the needs of the other. Only such interpersonal exchanges can provide the experiential factor necessary for the infant's proper development.

Pleasure and unpleasure constitute the two basic prototypes of the early infant's affective experiences and are the primitive precursors of true affect. While the infant can discharge unpleasurable tensions and excitation physiologically, only the mother's need-gratifying interventions can bring him complete relief and pleasurable quiescence.

In time, the infant's experiences of pleasure and unpleasure become increasingly differentiated and specific. These primitive affects will likewise play an important role in the dyadic communications and will thus be important in shaping the emerging personality.

Primitive Perceptual Processes

Because affective interchanges dominate the mother-child relationship, and because "perception is constantly influenced by the prevailing affective tone of the subject" (Spitz, 1965, p. 85), affect has been considered the specific "trailbreaker" for perceptual development (Spitz, 1965). Though discriminative perception via the peripheral sense organs is not present at birth, the newborn is not totally without sensory-perceptive faculties. Until a rudimentary form of consciousness develops in the postnatal weeks, nonpsychological processes of reception determine responses to external stimuli. The latter are received, however, only when their intensity exceeds the threshold of

the "stimulus barrier" and quiescence is disturbed.

The essence of perceptual development in the infant is reflected in a fundamental distinction between "coenesthetic" and "diacritic" modes of sensory functioning (Spitz, 1965). In the earlier "coenesthetic organization" of the nervous system, the infant is responsive to nonverbal, nondirected, expressive signals mediated through the enteroceptive and proprioceptive systems.¹⁵ Centered in the autonomic nervous system, sensation occurs on a visceral level in a global, diffuse fashion and is followed by a similarly all-or-none, affective, visceral response. In the more mature "diacritic organization," the peripheral sense organs mediate discriminative perception of a localized, discrete, and circumscribed nature. Centered in the cortex, its manifestations are cognitive processes including conscious thought processes.

The oral cavity has been thought of as the "cradle of perception," as it is the only integrated perceptual center at birth (Spitz, 1965). It is the first body part used for contact or tactile perception and exploration. Further, three ancillary organs of rudimentary perception, the hand, labyrinth, and outer skin surface, are subordinate to the central perceptual system of the oral cavity, and mediate the undifferentiated sensations. Because the oral cavity simultaneously represents inside and outside and responds to both inner and outer

¹⁵ In the early months of life, the infant responds to changes in equilibrium, tension, posture, temperature, vibration, skin and body contact, rhythm, tempo, duration, pitch, tone, resonance, and clang (Spitz, 1965).

stimuli, it "serves as the primeval bridge from inner reception to external perception" (Spitz, 1965, p. 62). Accompanying the transition from coenesthetic, inner reception to diacritic, outer perception, a critical shift from contact (tactile) to distance (visual) perception will occur within the nursing situation.

To sum up, the first six months of life are marked by a transition in the perceptual system from coenesthetic reception to diacritic perception and from the contact to distance modalities. In the "normal autistic," "objectless" phase, however, tactile sensations and coenesthetic stimuli originate in the emotional climate of the mother-child relationship and constitute the natural form of communication. Inner sensation of mounting needs, affectively experienced and expressed, elicit the mother's affective response and gratifying ministrations. Thus, primitive affect and perception are closely linked in the context of object relations. Subsequently, through interchanges with the mother, discriminative perception of the sensorium is learned, integrated and synthesized.

A final comment on the transformation of external stimuli into meaningful signals will shed further light on the relation between object relations and perceptual development. Several combined factors permit external stimuli to be meaningfully experienced and thus to serve their signal function. As such signals are gradually added to one another, they enable the infant to build a coherent image of the external world. Because the innate, "stimulus barrier" protects the infant from excessive environmental stimulation, stimuli received

may be processed slowly, over the course of many months. The mother likewise shields the infant from overstimulation and reduces inner stimulation by providing tension-relief. Lastly, and most importantly, the reciprocal mother-child "dialogue" consisting of a sequential "action-reaction-action cycle...enables the baby to transform...meaningless stimuli into meaningful signals" (Spitz, 1965, p. 43). In this way, close mother-child interaction assumes further significance for the organization of perception, as well as for the emergence of affect.

Marked behavioral modifications, growing out of affective and perceptual experiences with the mother, can be observed during the "Normal Autistic" or "Objectless" phase. Already at the end of the first week of life, signs of responsive, aim-directed behavior occur in the form of conditioned reflexes.

PHASE TWO: LATER PRECURSORS OF SEPARATION-INDIVIDUATION

Normal Symbiosis

In the second month of life, the "autistic shell which kept external stimuli out--begins to crack" (Mahler, 1968a, p. 15) and a "stimulus shield" with both protective and receptive functions begins replacing it. With the lowering of the "stimulus barrier" and the receding of primary narcissism, the infant can dimly perceive need-satisfaction as coming from some external source (Mahler, 1968a; et al., 1975). Though the maternal object is no longer considered part of the self--as was true in the autistic phase, neither is she

experienced as clearly differentiated, separate and external. Rather, as will be further discussed below, she exists for the infant as an "unspecific, need-satisfying, part-object" (A. Freud, 1965b).

The phase of "Normal Symbiosis" is characterized by the infant's state of undifferentiated fusion with and dependence on the mother.

The essential feature of symbiosis is hallucinatory or delusional, somatopsychic omnipotent fusion with the representation of the mother and, in particular, the delusion of a common boundary of the two actually and physically separate individuals (Mahler, 1968a, pp. 8-9).

Cathexis, or libidinal investment of the mother, albeit temporary and motivated by need, constitutes the primary psychological achievement of the symbiotic phase. Correspondingly, loss of the mother, the symbiotic partner, is the primary psychological danger for the symbiotic infant (threatening the infant with annihilation of self). Importantly, the capacity to affectively invest in the mother, within the symbiotic "dual unity," forms the basic foundation of all subsequent human relationships.

The symbiotic infant receives stimuli from beyond the symbiotic milieu only transiently, during states of "alert inactivity." Though the infant is able to respond differentially to internal and external stimuli, he lacks concepts of "self" and "other" to organize and assimilate such experiences. The infant-mother relationship provides the polar framework necessary for the infant's later differentiation of "self" and external reality.

The two partners of the symbiotic unit...may be regarded as polarizing the organizational and struc-

turing processes. The structures that derive from the double frame of reference of the symbiotic unit represent a framework to which all experiences have to be related, before there are clear and whole representations in the ego of the self and the object world (Mahler, 1968a, p. 11).

As in the autistic phase, the infant still cannot totally relieve "organismic distress" on his own. The mother, therefore, continues to help moderate homeostatic regulation.

Establishment of the Preobject

The infant's unspecific, smiling response, considered by Spitz (1965) to be the first "organizer," marks his entrance into the stage of the need-satisfying object relationships (Mahler et al., 1975). Spitz found that a moving face presented straight on elicits a smile from the three month old infant, and that even a nonhuman stimulus, such as a mask, with the eyes, nose, and forehead configuration triggers the smile. The indiscriminate nature of the three month smile implies a response to a "gestalt" rather than to a specific, human object and has therefore been thought to represent the establishment of a "preobject" or "precursor of the libidinal object" rather than a true object relationship (Spitz, 1965). By the peak of the symbiotic phase (approximately the fifth month), however, a specific smile does appear in response to the symbiotic partner and reflects the infant's achievement of a specific, symbiotic tie to her. From that point on, the mother is no longer interchangeable for the infant (Spitz, 1965).

The establishment of the precursor of the libidinal object leads

the way to the infant's beginning relatedness to nonhuman objects (Spitz, 1965). Two months after he is able to consistently perceive and respond to the human face, the infant comes to recognize the bottle and, subsequently, other familiar objects. The perceptual progression from the cathected, human object to the neutral, nonhuman object is consistent with the trailbreaking role of affect in development.

The Beginnings of Ego Organization

Outwardly indicating the "first organizer" of the psyche, the three month smiling response signals the convergence and integration of developmental trends, heralding significant structural and behavioral transformations (Spitz, 1965). The setting up of the preobject within the symbiotic milieu represents not only the beginning of social relations and of the process of intrapsychic object formation but the birth of primitive ego structures as well. The integration of "constituent parts of the ego" or "ego nuclei"--prototypical physiological functions and behavior patterns--gives rise to a "rudimentary ego" (Spitz, 1965) and points to the synthetic tendencies already operative in this archaic precursor of the ego.

Memory, Affect and Delay

During the symbiotic phase, the infant's recognition of and response to cues becomes increasingly specific. As a result of maternal gratification and his own tension-reduction efforts, he gradually begins to distinguish between pleasurable and painful experiences.

Memory traces of these early "good" and "bad" attributes are registered by way of the inborn, autonomous perceptual apparatus. Internal images of the love object, the body, and, later, the psychic self emerge from the accumulated memory traces of pleasurable and unpleasurable emotional experiences and from the perceptions associated with them (Mahler et al., 1975).

The three month smiling response provides evidence of the existence of memory traces (Spitz, 1965) and demonstrates that the human face in motion is the infant's first meaningful percept. At four months, the infant begins to display unpleasure (crying) when the mother leaves him. His affective expression suggests that the appearance and "disappearance" of the preobject have come to signal memories and expectations of gratification and frustration, respectively (Spitz, 1965). Learning via conditioning has been replaced by learning through experiences with the maternal partner. Most importantly, it is the infant's affective investment in experience in general, and in the dyadic relationship, in particular, which guarantees memory storage (Spitz, 1965).

Once associated with pleasure, memory engrams of the mother's caretaking enable the infant to endure the inevitable frustration of awaiting her ministrations (Mahler, 1968a; Spitz, 1965). They "permit the infant to hold tension in abeyance and to wait for and confidently expect satisfaction" (Mahler, 1968a, p. 12). Thus, repeated gratification-frustration sequences promote the capacity for delay and facilitate the onset of adaptive behavior. Frustration itself

also activates the infant to seek satisfaction and develop perceptual capacities (Spitz, 1965).

Insufficient experiences of frustration preclude satisfactory development of the capacity for delay. Excessive frustration, however, can also disrupt ego development by promoting premature precocious exercise of ego capacities which later render the ego vulnerable to trauma (Mahler, 1968a; Spitz, 1965). In situations of inordinate stress, the mother must therefore protect the infant from the defensive, "pseudo-independence" which precipitates "ego distortion," often in the form of incipient "as if" mechanisms (Mahler, 1968a).

Perceptual Development

With the diminishing effectiveness of the "stimulus barrier," reception of external signals increases. A beginning shift from reception to perception, from an inward to an outward orientation, and from cathexis of the inside of the body to the cathexis of the sensori-perceptive periphery ushers in the symbiotic phase (Mahler, 1968a; Spitz, 1965). While the infant shows growing perceptual and affective investment in external stimuli, his experience of inside and outside, and of self and other remain vague and incomplete (Mahler et al., 1975).

Kinesthetic and contact-perceptual experiences of the total body facilitate the infant's entry into the symbiotic stage and thereby augment his familiarity with the symbiotic partner (Mahler et al., 1975). Subsequently, the symbiotic relationship mediates a crucial shift from a contact (tactile) to distal (visual) perceptual orien-

tation. Although the two perceptual modalities initially blend as "part and parcel of one single experience" in the nursing situation (Spitz, 1965, p. 65), a predominantly visual orientation gradually emerges because of its greater reliability. While physical contact with the object (nipple) is repeatedly lost and recovered during nursing, visual accessibility to the mother remains unchanged. The role of contact perception therefore declines as the infant comes to rely on the more rewarding constancy of distance perception. Progressive developments in particular subcategories of perception vary as a function of specific conditions of the nursing situation.

The establishment of visual perception as the leading perceptual modality has several important implications for structural and functional development (Spitz, 1965). First, it permits and may signify the beginning efforts toward establishing object constancy. Further, by allowing the infant to attend to the environment, distance perception augments mastery and orientation. It thereby expands autonomous functioning, and enlarges the conflict-free sphere of the ego.

From Passivity to Activity

During the extended periods of wakefulness of the symbiotic phase, the infant's attention oscillates between inner stimuli and the "symbiotic, libidinal attractions" (Mahler, 1968a). The child's newly attained capacity for heightened alertness and outward attention promotes a shift from passive to active relations with objects and from passivity to activity in general (Spitz, 1965). Various nuances of "ego states" begin to appear and, at the height of symbi-

osis, facial demeanor is increasingly "differentiated, mobile, and expressive" (Mahler, 1968a, p. 15).

Action patterns learned during interchanges with the preobject mark the onset of the infant's goal-directed activity (Spitz, 1965). These continue to influence the quality and progress of object relations. The infant utilizes intentional actions to exercise his expanded muscular coordination and perceptual capacities, and, in doing so, to extend the realm of his exploratory behavior.

In conclusion, directed actions serve mastery and control and reflect the functioning of the newly organized rudimentary ego. Additionally, structured action patterns channel the expression of libidinal and aggressive strivings (Spitz, 1965), thus reinforcing the beginning separation of id and ego.

Reality Relations

By promoting ego capacities, the symbiotic relationship critically transforms the infant's relation to his surrounds. His more selective and differentiated, outward visual orientation opens up a broad range of qualitatively new sensory experiences. Together the new-found perceptual skills, and growing tendencies to be active and explore, combine with the growing capacity to sustain goal-directed actions, to promote greater familiarity with the external world and, thereby enhance reality testing. Memory traces, established through association with affective experiences, lay the foundation for later internal images of self and other. They bring about the early smiling response and, with it, the beginning of all social relations.

They permit delay of need-gratification thus initiating adaptation and the ascendance of the reality principle over a more primitive pleasure orientation.

Body Image and the Sense of Self

Within the symbiotic matrix, part-images of self and nonself begin to form in accord with gratifying and frustrating experiences. The seeds of a "self-orientation" begin to take root in this fashion. "The infant's inner sensations form the core of the self. They seem to remain the central, crystallization point of the 'feeling of self,' around which a 'sense of identity' will become established....The sensori-perceptive organ...contributes mainly to the self's demarcation from the object world. The two kinds of intrapsychic structures together form the framework for self-orientation" (Mahler et al., 1975, p. 47).

Early representations of the body ego likewise begin to develop. Contributing to a beginning "'body image'...representations of the body that are contained in the rudimentary ego mediate between inner and outer perceptions" (Mahler et al., 1975, p. 46). The shift from "predominantly proprioceptive-enteroceptive cathexis toward sensori-perceptive cathexis of the periphery" (Mahler, 1968a, p. 11) is an essential prerequisite of body image formation.

The Complementary Maternal Role

"Mutual cueing" of the symbiotic mother-child pair has been con-

sidered a principle means of identity formation (Mahler, 1968a; et al., 1975). The infant presents a multitude of cues, signalling need or satisfaction which, based on her own needs, interests and conflicts, the mother may recognize, neglect or misinterpret. Her preferences and unconscious attitudes, deriving from her ego ideal or superego injunctions, therefore play a decisive role in determining her response to his cues (Spitz, 1965). Because the infant, in turn, alters his behavior in accord with her selective responses, the latter also direct and influence his development. He demonstrates, in fact, a remarkable capacity to adapt to her personality (Mahler & Furer, 1963) and to the "mirroring frame of reference" she presents (Mahler, 1968a; et al., 1975). Two equally important gradients, one from the mother to the child and one from the child to the mother, thus define the "action exchanges" within the dyad (Spitz, 1965).

These "circular interactions," wherein mother and child read and respond to each other's signals, result in behavioral traits which already reflect qualities of the infant's emerging personality. It is for this reason that the mother's patterns of caretaking, or "holding behavior," are considered the "symbiotic organizers of psychological birth" (Mahler et al., 1975, p. 49). Her preferred patterns of mothering and interaction are adopted by the infant, particularly when they represent frustrations or gratifications within the mother-child relationship.

The mother's symbiotic partnership with the infant is the chief stimulus for the structural development and integration of the ego and object relations. The interactions of the partners give rise to

the bipolar frame of reference from which differentiation of self and object representations proceeds.

The two partners of the symbiotic unit...may be regarded as polarizing the organizational and structuring processes. The structures that derive from the double frame of reference of the symbiotic unit represent a framework to which all experiences have to be related, before there are clear and whole representations in the ego of the self and the object world (Mahler, 1968a, p. 11).

Further, in administering to the child's needs, the mother functions as an "auxiliary ego" which supports the emerging functions of the child's rudimentary ego. Therefore, "it is within this matrix of physiological and sociobiological dependence on the mother that the structural differentiation takes place which leads to the individual's organization for adaptation: The functioning ego" (Mahler et al., 1975, p. 45). Finally, the mother's ongoing, emotional rapport also supports the budding ego functions. Her affective involvement and sensitive attunement--her "primary maternal preoccupation" (Winnicott, 1958)--is the "essential promoter" of the "social symbiosis" and a critical determinant of ego development.

PHASE THREE: SEPARATION-INDIVIDUATION

The onset of the separation-individuation process coincides with the climax of the symbiotic phase and continues through the third year of life. Consistent with the regular overlap between stages, symbiotic phenomena persist into the separation-individuation phase. Its subphases mark the "nodal points" of structural and developmental change, the "crossroads of individuation" (Mahler, 1968a, p. 14). As

discussed below, maturational and developmental, autonomous and conflictual intrapsychic and environmental factors are intricately interwoven in the processes of separation-individuation (Mahler, 1968a).

To reiterate, separation-individuation proceeds along two distinct but interdependent developmental tracks.

One is the track of individuation, the evolution of intrapsychic autonomy, perception, memory, cognition, reality testing; the other is the intrapsychic developmental track of separation that runs along differentiation, distancing, boundary formation, and disengagement from mother (Mahler et al., 1975, p. 63).

Through the maturation and consolidation of autonomous ego functions, the processes of individuation lead to the emergence of distinctive individual traits in the child, while the separation processes lead to intrapsychic awareness of bodily separateness and of independent functioning from mother. Combined, these structuring processes gradually bring about internally differentiated self and object representations (Mahler et al., 1975). Optimally, development along the track of separation and individuation progresses with relative evenness. When awareness of separateness, however, lags far behind or far exceeds independent, autonomous functioning, pathological distortions of development result.

Innumerable inter- and intraindividual variability in behavioral phenomena accompanies the intrapsychic events of separation-individuation. The progressive and regressive movements along each separate track as well as their gradual synthesis can be observed in the ongoing, mother-child interactions (Mahler et al., 1975). Regardless of the behavioral manifestations, the developmentally normal

separation-individuation process, given a normal symbiotic period, will culminate in "the child's achievement of separate functioning in the presence of, and with the emotional availability of the mother" (Mahler et al., 1975, p. 3).

The First Subphase

Differentiation and "Hatching"

By the middle of the first year, the infant has formed a strong libidinal bond with the mother. A specific smiling response at five months replaces the indiscriminating social smile which appeared at three months and indicates the establishment of a specific attachment to the mother. Spanning the fifth to the ninth month, the first subphase of the separation-individuation process marks the infant's initial steps toward differentiating from the maternal object (Mahler, 1968a; et al., 1975). The differentiation process is facilitated by the development of various ego capacities.

Differentiation, the central task of the first subphase, involves emergence from the symbiotic orbit, metaphorically termed "hatching" (Mahler, 1968a; et al., 1975). "Hatching" is associated with a maturational thrust which turns the inwardly focussed attention of the symbiotic infant outward during periods of more frequent and prolonged wakefulness. "Hatching" has therefore been defined as "a gradual, ontogenetic evolution of the sensorium--of the perceptual-conscious system--which leads to the infant-toddler's having a permanently alert sensorium, whenever he is awake" (Mahler, 1968a, p. 17). An observable manifestation of "hatching" is the infant's "new look

of alertness, persistence and goal-directedness" (Mahler et al., 1975, p. 54). Yet because the infant was likewise attentive to the external world, i.e., the mother during the symbiotic phase, his altered perceptual orientation and demeanor reflects quantitative rather than qualitative changes.

Given that every advance along the course of development is contingent upon adequate mastery of earlier developmental tasks, it follows that the infant's readiness and ability to differentiate from the mother and to separate self from fused, self-other representations depends on the adequacy of the symbiotic relationship (Mahler, 1968a). When the child can enjoy "safe anchorage within the symbiotic orbit" while simultaneously finding pleasure in outer-sensory perception, then "these two forms of attention cathexis can oscillate freely... (and) smooth differentiation--and expansion beyond the symbiotic orbit --can take place" (Mahler, 1968a, p. 17).

Difficulties in symbiosis can however lead to "delayed" or "pre-mature" differentiation and "hatching." In the former case mothers who cannot tolerate the infant's beginning steps toward separation may forestall or prevent them by discouraging independent functioning. Because of their own symbiotic needs, they may, with enveloping or intrusive behaviors, intensify the child's symbiotic dependence and thereby engender varying disturbances of differentiation. The infant, himself, may prolong the symbiotic phase in response to an indifferent, depressed or narcissistic mother. Alternatively, he may delay differentiation by substituting autoerotic gratifications which can,

in turn, forestall the development of recognition, the smiling response, or the use of vision.

In the case of "premature" hatching, mothers who are intolerant of the infant's symbiotic needs may precipitously force the child into "independence" through abrupt or impulsive disengagement. Similarly, the ambivalent, unpredictable and inconsistent mother may bring about premature "hatching" in an infant who seeks to free himself from a displeasing aversive symbiosis. As mentioned above, precocious development of certain ego capacities may be associated, eventually, with increased vulnerability to stress.

Locomotion

At the peak of the "hatching" process, a maturational spurt in certain motor functions occurs (crawling, sliding) leading the infant to practice active locomotion and to expand the territory of his explorations (Mahler, 1968a; et al., 1975). This maturational advance promotes differentiation by stimulating the child to practice spatial separation and return to mother.

...it is during this first subphase of separation-individuation that all normal infants take their first tentative steps toward breaking away, in a bodily sense, from their hithertofore completely passive lap-babyhood--the stage of dual unity with the mother (Mahler et al., 1975, p. 55).

Hence, locomotion like perceptual maturation, also furthers the infant's emergence from symbiosis. It is important to note, however, that because the infant's need for security through physical closeness remains, he is psychologically as well as motorically ready to

venture only a small distance from the mother. As the acquisition of upright locomotion will demonstrate more emphatically, the capacity to physically separate, nonetheless, has a "significant catalyzing influence on the further development of the ego" (Mahler, 1968a, p. 18).

Exploratory Behavior

Further indications of the infant's tentative experimentation with separation and individuation are the exploratory behaviors through which he begins to differentiate his own body from the mother's. Six to seven months marks "the peak of manual, tactile, and visual exploration of the mother's face, as well as the covered (clad) and unclad parts of the mother's body" (Mahler et al., 1975, p. 54). Pulling at the mother's hair, ear, or nose, placing food in her mouth, and leaning away from her body to better examine her are all familiar activities of the differentiating infant. Peek-a-boo games and attachment to soft, pliable objects may also appear. Such "transitional objects" substitute for mother and demonstrate a continued need for contact with her body.

The significance of both the visual and tactile sensory modalities for differentiation has been stressed (Mahler et al., 1975). Vision allows the infant to maintain perceptual contact with the mother while physically distancing from her. Additionally, vision is "indispensable" for promoting awareness of a continuous body surface, of self-other demarcation, and of a central body image. The infant's use of touch in molding to the mother's body and in feeling

both his and her body, is likewise critical for the process of body boundary formation. Equally essential for the child's development of body awareness and image is the mother's libidinal investment in the child's body.

The infant's exploratory behaviors are exemplified in his patterns of "checking back," of carefully examining and comparing the "non-mother" with the mother, feature by feature (Mahler et al., 1975). By means of this "comparative scanning" of familiar and unfamiliar, the infant better acquaints himself with the mother and, most critically, begins to discriminate between her and other human or nonhuman objects. This cognitive and emotional capacity to use the mother as a point of orientation has been considered "the most important fairly regular sign of somatopsychic differentiation" (Mahler et al., 1975, p. 55). If, however, the mother performs her maternal role anxiously, unpredictably, or hostilely, the infant will lack the necessary, reliable reference point for "checking back." Consequently, his sense of self, boundary formation, and capacity for self-other discrimination may suffer.

To briefly reiterate a crucial point, the infant's early differentiation patterns and beginning identity evolve not only from the infant's innate endowment but from the "mutual cueing" within the particular mother-child relationship.

The birth of a child as an individual comes about when, in response to the mother's selective response to his cueing, the child gradually alters his behavior. It is the specific unconscious need of the

mother that activates out of the infant's infinite potentialities those in particular that create for each mother "the child" who reflects her own unique and individual needs (Mahler et al., 1975, p. 60).

It is this process which gives rise to "patterns of personality organization" which seem to remain stable throughout the separation-individuation phase and perhaps even further (Mahler et al., 1975).

The Second Organizer

Stranger anxiety and the question of libidinal object constancy.

By approximately the eighth month, when diacritic discriminative perception is already well-developed, the infant is capable of distinguishing other persons from the mother. Endowed with unique qualities, in the course of their exchanges, she may no longer be interchangeable with any other individual. In response to a stranger, the infant will withdraw and display apprehension and anxiety (Spitz, 1965). Corresponding to the tremendous individual differences in development, wide variation exists in the timing of the "eighth month stranger anxiety." Presumably, the approach of the stranger, the "not-mother," evokes the fear of losing mother. Notably, by this stage, the infant's expressions of displeasure are more deliberate, structured, and comprehensible, just as his perception and recognition are more selective and specific.

The element of wonderment and curiosity in addition to anxiety and apprehension, has been stressed as part of the infant's reaction to the "not-mother" (Mahler et al., 1975). After the stranger averts his gaze, the infant's eagerness to learn about him is reflected in

his inspecting him and his "checking back" from stranger to mother. Moreover, an inverse relationship between basic confidence and stranger anxiety--as opposed to curiosity and interest--is thought to exist (Mahler et al., 1975). If the symbiotic phase has been optimal and basic trust firmly established, curiosity and wonderment are likely to prevail with minimal "stranger anxiety." However, when less confidence in the mother's availability and caretaking exists, stranger anxiety can be acute and overwhelming, or mild but prolonged, transiently precluding the pleasurable inspection patterns. Thus, extreme variation in the quality and quantity of the eighth month stranger reactions also exists.

Eighth month stranger anxiety has been thought, by Spitz, to mark the "emergence" of the "good organizer," marking a distinct stage in the development of psychic organization (Blanck & Blanck, 1974). It has also been thought to represent the establishment of the "libidinal object" of a true object relation, in both the cognitive and affective spheres (Spitz, 1965). The implied attainment of "libidinal object constancy" signifies that the infant can evoke the mental image of the mother even in her absence.

Much controversy surrounds the question of when the infant attains libidinal object constancy. Fraiberg (1969) usefully pointed out that the term "object constancy" has acquired a diversity of meanings and that the discrepancies between proposed age norms result from differences in definition, usage, and criteria applied. Similarly, differences in the term "mental representation" bear on the divergent

views on the timing of libidinal object constancy.

Taking issue with Spitz, this author is in closer agreement with Mahler et al. (1975) who employ more restrictive criteria for the establishment of libidinal object constancy, and place it within the fourth subphase of separation-individuation in the third year of life. Accordingly, a fuller examination of this controversy will be deferred until discussion of that later subphase.

Drive development. In connection with the view that the eighth month stranger reactions represent the attainment of libidinal object constancy, a brief look at the relation between drive development and object formation is in order. The libidinal and aggressive drives are originally undifferentiated. As a result of the infant's involvement with the mother, they undergo a gradual process of differentiation during the first three months and remain separate and discreet prior to the establishment of the preobject. Throughout the objectless and preobject stages, the mother becomes a target of libidinal or aggressive drives in accord with her gratification or frustration of oral needs.

As the infant starts to distinguish between a "good" (gratifying) and a "bad" (frustrating) object, he directs the libidinal and aggressive drives toward the former and latter respectively (Spitz, 1965). Synthesis of the "two objects" into a whole, constant libidinal object is later achieved by way of the memory, ideational, and integrative processes of the rudimentary ego.

...an endless chain of action exchanges with the mother lays down a growing number of memory traces,

primarily the percepts of the mother changing roles. ...There comes a point where the mother as a unit, as a "whole" person, ceases to be perceived only as an element of the specific situation in which she is experienced....The multiple percepts of the mother are fused due to the increasing retentiveness of the infant's memory function and his ego's integrative tendency....Successive memory traces of the pre-object are recognized as identical with each other, independent of the situation, and the object is synthesized (Spitz, 1965, p. 169).

The infant learns to ignore the unessential characteristics of his percepts of the mother in favor of recognizing their essential, consistent and distinguishing attributes.

Fusion of the two drives accompanies the synthesis of the "good" and "bad" objects into a unified, unchanging image (Mahler et al., 1975; Spitz, 1965). Because the "libidinal drive is proportionate to his need" (Spitz, 1965, p. 170), the infant's libidinal drives outweigh aggression in this fusion, thereby fostering the predominance of the "good" object and the emergence of the "libidinal object." In keeping with the view that libidinal object constancy is typically achieved at eight months, drive fusion is thought to occur at approximately six months (Spitz, 1965).

Several preconditions must be met in order that the fusion of the drives and object representations occur. Sufficient gratification from the mother's caretaking must have been experienced to permit libidinal drives to dominate and unite with aggression. Likewise, however, experiences of frustration must have been sufficient to promote structuralization and the beginning distinction between self and other, the ultimate basis of the true object relation (Spitz, 1965).

The integration of gratifying and frustrating experiences fosters psychic organization. Memories of satisfaction offered by the "good" object permit the infant to withstand the frustrations imposed by the "bad" object. "The reward offered by the 'good object' can serve as a compensation for the misdeeds of the 'bad object'" (Spitz, 1965, p. 172). Only with the capacity to tolerate frustration and delay gratification can the reality principle gain ascendance over the pleasure principle and can thought and judgment precede action. The associated aggression can then be volitionally channelled into directed action, thus ensuring pleasure and mastery. It is these momentous achievements which define the evolving organization of psychic structure.

In conclusion, the decisive importance of "normal" object relations for development is again demonstrated. The mother must provide experiences of gratification and frustration in proper proportion. These, in combination, promote drive synthesis, the establishment of the libidinal object, the birth of object relations, and the complementary trust and impetus necessary for psychic development.

Structural integration and the "Executive Ego." The establishment of the "second organizer" is accompanied by a major integration of several developmental currents and of changes in the somatic and mental apparatus (Spitz, 1965). First, displeasure, for example, in reaction to a particular stimulus, assumes a specific form in the eighth month stranger anxiety. The increased specificity of both stimulus and response signifies a "crystallization of affective response" (Spitz, 1965). Second, regardless of whether one agrees that

the stranger reaction indicates the attainment of libidinal object constancy, the libidinal attachment to the mother and the capacity to distinguish her from other persons, nonetheless, mark a significant step forward in object relations. Third, development in affective and object relational spheres is closely interdependent with progress in the perceptual, motoric, and mental sectors of the ego. As noted, diacritic perception, partial locomotor functions, expanded memory storage, and complex thought processes emerge. Concomitant advances in the myelinization of the neural pathways likewise enhance perceptual discrimination, effector coordination, muscular organization, and motoric control.

Of greatest structural significance is the establishment of a newly integrated ego, an "executive ego," at around seven and one-half months (Spitz, 1965). Functioning as a "central steering organization," it mediates between multiple needs and strivings, fears and aversions, and channels them into motoric action and affective expression. For example, the ego integrates the newly attained physical and mental capacities into sequences of directed, volitional action. As the latter affords intentional and more efficient need satisfaction, structuralization proceeds. "The ego organization will now be enriched from a variety of sources; it becomes structured and boundaries are being established...between ego and id, ego and reality, I and non-I, self and nonself" (Spitz, 1965, p. 163). Furthermore, the maturational, developmental, functional, and structural transformations which characterize the first subphases of sep-

aration-individuation highlight the intricate, ongoing, circular interactions of drive, ego, and object relations development.

The Second Subphase

Practicing, Separateness, and Autonomy

The cardinal feature of the second subphase of separation-individuation which extends from the ninth to the fourteenth months of life is the infant's greatly increased exercise of the maturing autonomous functions, and, particularly, of locomotion (Mahler et al., 1975). Due to a "second massive shift of cathexis," his major libidinal investment transfers from the symbiotic orbit to the self and the autonomous ego functions--motility, perception, cognition and learning (Mahler, 1968a). Given the infant's concentration on the exercise and mastery of his own skills, the second subphase has been referred to as the "practicing period" (Mahler, 1968a; et al., 1975). In conjunction with bodily differentiation from the mother and the establishment of a specific bond with her, the maturation and practice of the autonomous ego apparatus, in close proximity to her, contributes to the beginning individuation and awareness of separateness.¹⁶

¹⁶ Mahler et al. (1975) further subdivided the "practicing period" into an "early practicing subphase" and the "practicing subphase proper." They located these first steps toward separation and individuation within the "early practicing subphase," thought to overlap the first subphase of "differentiation." The rapid expansion of ego functions compensates narcissistically for the fear of object loss, probably reawakened by each developmental step forward.

The maturational acquisition of independent, upright locomotion during the "practicing period" has momentous consequences for both ego development and the separation-individuation processes. While practicing physical separation from the mother, the child can interact with her at a distance, and simultaneously enjoy his new freedom and autonomy. Having learned to discriminate between animate and inanimate through interchanges with the mother, and having made progress toward separation and individuation, interest now extends to include the inanimate object world. At times, the child appears almost oblivious to the mother's presence, joyfully absorbed in physical exploration of the environment. With upright locomotion, the child's expanded use of space, altered plane of vision, and heightened perceptual exploration offer new perspectives and acquaint him with a wider segment of reality. Reflecting major advances in cognition, he begins to understand that spatial and cause and effect relationships are tools that can be used to achieve a desired outcome. His enormously increased activity, his discovery and testing of reality, and his exercise of initiative and control, foster a pleasurable sense of mastery and bring on his "love affair with the world" (Greenacre, 1957; Mahler et al., 1975; Spitz, 1965).

The resulting spurt in autonomy is augmented, in the drive sector, by the oncoming negativism of the anal phase. By strengthening the formation of self-boundaries, the oppositionalism of the anal period facilitates intrapsychic separation (Mahler, 1968a).

Developments in the Dyadic Relationship

The enhanced autonomy resulting from the maturation and practice of the autonomous ego functions has symbolic meaning for mother and child alike. With his attainment of walking, both feel he is more grown up. The mother's newly-inspired confidence in him augments his feelings of security, pleasure, and self-esteem and allows him to relinquish part of his sense of magical omnipotence (Mahler, 1968a; et al., 1975). Both mother and child, however, become aware of the increased separateness which accompanies the child's advancing autonomy.

After his initial distancing from the mother during the early part of the "practicing" subphase, the toddler briefly experiences intensified separation anxiety. Despite his "elated investment in the exercise of the autonomous functions, to the near exclusion of apparent interest in the mother at times" (Mahler et al., 1975, p. 69), his need for and interest in her still predominates. While separating in space, he prefers keeping her in sight and maintains visual contact via the use of the sensory-distance modalities. She remains his "beacon of orientation" in his expanding world (Mahler, 1968a). "How this new world is experienced seems to be subtly related to the mother, who is still the center of the child's universe from which he only gradually moves out into ever-widening circles" (Mahler et al., 1975, p. 66).

The brief exacerbation of separation anxiety and the continued reliance on the mother's presence can be understood in terms of Mahler's (1968a) proposition that, even at the height of the "prac-

ticing" period, the internal part-images of the mother are not yet integrated into a whole, constant libidinal object representation. Moreover, brief absences from the mother "activate the split" between the part-images. In order that the infant's aggression toward the "bad mother," experienced during separations, not destroy the "good mother," representing symbiosis, intrapsychic integration of the split representation must still be accomplished (Mahler et al., 1975).

Optimally, the mother watches the toddler from a distance during the "practicing" phase, sanctioning his autonomy while also providing the availability and support he still needs. If, however, her own symbiotic needs are intensified or traumatized by confrontation with his separateness and autonomy, she may precipitously withdraw her support and abandon him prematurely (Mahler, 1968a; et al., 1975). Her difficult task then, during the "practicing period," is to relinquish her symbiotic ties but not her encouragement and support.

Depending on the level of development he has reached, the child may similarly be emotionally unprepared for the intrapsychic consequences of maturation. Excessive conflict over separation can prolong his need for closeness and compromise his mastery. If his increased awareness of separation triggers excessive anxiety, he may express the conflicting wish to deny separation and/or the fear of reengulfment (Mahler, 1968a).

The typical developments of the "practicing" phase are accompanied by numerous changes in the dyadic interaction and communication. Supplementing the patterns of comparing and checking features

of the "not-mother's" face with the maternal part-object representations which reoccur in "expanded form," the toddler's need for the mother's physical presence is demonstrated in periodic "emotional re-fueling" (Mahler, 1968a; et al., 1975). When fatigued, he returns from his exploratory expeditions to establish bodily contact with her. Soon, he appears re-energized or "refueled" and resumes his activities with seeming obliviousness to her.

Because the walking toddler can move beyond his mother's reach, she must communicate with increased gesturing and speech. The toddler's independent locomotion also brings with it added maternal responsibilities. As he unwittingly endangers himself, she is forced to intervene and protect him, to serve as an "external ego" (Spitz, 1965), complementing his incomplete structural development. His forays necessitate maternal prohibition, restriction, reproach, and command, on which dyadic interchanges now become focused (Spitz, 1965). In time, the child will internalize the mother's controlling influences and gradually develop internal regulatory mechanisms.

Imitation and Precursors of Defense

Imitation, which begins between the eighth and tenth month (Spitz, 1965), serves a variety of developmental functions. In keeping with the major thrust of the practicing period, the toddler furthers development by imitating numerous maternal behaviors. Earlier,

the infant entertained himself with self-stimulating repetitions of his own vocalizations. Toward the end of the first year, however, his imitations of the mother's sounds and words reflect and promote progress in language development, in addition to reflecting his declining narcissism and growing object relatedness. The child's imitation of the mother's actions and gestures, without his comprehending the ideational content of the gestures, in their reciprocal social play and games, also advances object relations. Such "identification through the gesture" foreshadows the mechanism of identification proper. The toddler's use of imitation for mastery of separation highlights the initial adaptive functions of future defense mechanisms. By attempting to imitate the mother's activities, the child seeks to provide himself with the gratifications she formerly provided (Spitz, 1965).

The Heightened Sense of Self

At the end of the first year, increased differentiation of affect appears within the context of more complex object relations. The child has experienced jealousy, possessiveness and rage, love and affection, pleasure and joy (Spitz, 1965). Yet, by the close of the "practicing" phase, the mood of the freely moving toddler is dominated by the heights of narcissistic elation (Mahler, 1968a; et al., 1975). The child readily accepts substitute adults who are familiar to him and many falls and frustrations pass by almost unnoticed.

...he is exhilarated by his own abilities, continually delighted with the discoveries he makes in his expanding world, and quasi-enamored with the world

and his own grandeur and omnipotence (Mahler et al., 1975, p. 71).

This inflated mood, however, may be related not only to the exercise of his capacities but also to "the elated escape from fusion with, from engulfment by, mother" (Mahler et al., 1975, p. 71).

The toddler's "special 'state of self'" dissipates only with the realization of his mother's absence (Mahler et al., 1975). With longing and fear of loss, he becomes visibly "low-keyed." Gesture, motility and interest in the environment diminish. His apparent inward preoccupation suggests possible attempts to recover a mental image of the absent maternal partner.

The Third Subphase

The dominant feature of the third separation-individuation subphase contrasts with the child's relative obliviousness to the mother during the "practicing" period. His increased awareness of separation from the mother and concern with her fosters the need for "rapprochement" (Mahler, 1968a; et al., 1975). Conceptualized in three parts, the beginning of the "rapprochement" period spans the 14(15)th to 16(17)th months--the height of the "rapprochement crisis," the 18th to 20th months and its resolution, the 18th to 20th months through the 24th month or beyond (Mahler et al., 1975).

The Third Organizer

At the beginning of the third subphase a major reintegration

of psychic organization takes place. It makes the emergence of ego capacities which the toddler utilizes in meeting the developmental tasks of "rapprochement."

The maternal prohibitions, necessitated by the increase in locomotion during the "practicing" subphase, clash with the toddler's increased activity level, competence and initiative. Defending his autonomy, the toddler resists the mother's restrictions and responds with anger and displeasure to the mother's "no" (Spitz, 1965).

The resultant internal conflict between his aggressive and libidinal feelings toward the all-important mother lead to a compromise solution, a "selective identification with the aggressor."

Though the toddler does not appreciate his mother's thinking and rationale he does incorporate her "no" and head-shaking gesture, and her affect, while only understanding, however, the global feeling of being "against" someone else. Given the aggression it evokes, the "affective charge" of the "no" ensures the permanent registration of both the word and accompanying gesture in memory (Spitz, 1965).

The achievement of the "no" and the sign of negation at 15 months, are the outward indicators of the "third organizer" and carry manifold implications for emotional and cognitive development. The two primary attitudes of "for" and "against" assume a dominant place in the child's affective life. He is no longer limited to enacting his feelings and can express them with speech. His use of the "no" contrasts with his earlier use of words to convey a variety

of meanings. Further, his "no" and gestural head-shaking represent the first abstraction he forms, the concept of negation and refusal.

As his capacity for speech grows, "semantic symbols become the ego's main instrument for conducting object relations" (Spitz, 1965, p. 142). Constituting the principle mode of interchange, speech advances the level of object relations while also promoting cognitive functions.

The upright locomotion of the "practicing phase" is thus closely followed by the developmental progression from sensori-motor to representational intelligence.¹⁷ The latter, evidenced in speech and symbolic play, will lead to the child's establishment of object permanence by the 18th month. The progressing locomotor and intellectual capacities foster greater separateness and autonomy. Similarly, as internalization through ego identification gradually develops, independence from the environment proceeds in parallel fashion (Hartmann, 1939a).

Early Rapprochement

Toward the close of the "practicing" period and the height of mastery, the toddler begins to recognize the obstacles which challenge his independent functioning. He can neither overcome them all single-handedly nor always secure immediate assistance, for his primary love object leads a separate existence, not exclusively tailored to his

¹⁷See Piaget, 1936.

needs and interests. Because he now sometimes feels small and helpless, he is forced to start relinquishing his sense of grandeur and magical omnipotence (Mahler et al., 1975).

The increased differentiation of intrapsychic self and object representations, stimulated by locomotor and cognitive growth changes the child's relation to his mother (Mahler, 1968a). His concern with his whereabouts intensify and promote his actively approaching her. His needs are to share his skills, experiences and discoveries with her and maintain her love. He can now use sounds, words and gestures to communicate his desire that she be interested in the objects he brings to her and participate in his enjoyment of them (Mahler et al., 1975). Despite his demands for the mother's involvement, development has expanded the toddler's repertoire of active ways to cope with separation. His identifications signify the beginning internalization of object representations and also facilitate the mastery of separation. Having reached the stage of representational intelligence he can use symbolic play to master the appearance and disappearance of the object. He is able to interact with other children and adults in his environment and, by now, has included the father in his expanded social world. Identification with both father and mother are, in fact, reflected in his games. Lacking sufficient ego strength to deal with his sadness internally, the toddler may react to a prolonged absence of the mother with restlessness and hyperactivity, a possible defense against the sadness over loss of the symbiotic unit.

Further, the internalization of the parents' demands and expectations gives rise to the next higher developmental fear, the fear of loss of the objects' love and the associated concern with parental approval and disapproval.

Conflicting with the wish to rejoin the mother is the fear of reengulfment. As already noted, the toddler struggles to maintain his, as yet, tenuous autonomy and differentiation. He defends them with increased negativism and the use of "no" which fortify the distinction between self and other (Mahler, 1968a; et al., 1975; Spitz, 1965). Additionally, the child has grown increasingly aware of his body and regards it as his own. He asserts his ownership by accepting or rejecting the timing and nature of others' attempts at physical contact or control. In place of his earlier "refueling," he may seek out or avoid intimate bodily contact with the mother.

The basic conflict of "rapprochement" is expressed in the behavioral patterns of "shadowing" and "darting." "Shadowing" refers to the toddler's "incessant watching of and following every move of the mother" (Mahler et al., 1975, p. 77 footnote). His "...shadowing of the mother and darting away from her, with the expectation of being chased and swept into her arms--indicate both his wish for reunion with the love object and his fear of reengulfment by it" (Mahler et al., 1975, p. 77).

When the earlier stages of the mother-child relationship had been fraught with difficulty, the fact of separation during "rapprochement" may create excessive strain for the toddler. He will

then be preoccupied with the mother's whereabouts and this will be manifested in constant shadowing and demandingness and extreme separation anxiety (Mahler et al., 1975). Similarly, exaggerated negativism can result from an unsatisfactory symbiotic phase (Mahler, 1968a). At this point the mother may be faced with the seeming contradiction between the toddler's growing autonomy and his resurgent demands for her attention.

If the mother regards the latter as regressive, or feels imposed upon, she may fail to respond to his needs (Mahler, 1968a).

The mother's task in relation to the toddler during "rapprochement" is twofold. She must remain emotionally available in a predictable way and must also accept his separateness and support his independence (Mahler et al., 1975). The less she responds the more insistently will he attempt to engage her and thereby deflect vital energies from developing his emerging ego functions. Her emotional availability and encouragement of autonomy are therefore critical factors in his fully realizing his potentials and outgrowing his need for magical omnipotence (Mahler et al., 1975).

Early "rapprochement" draws to a close at 17 to 18 months with what appears to be a "temporary consolidation and acceptance of separateness" (Mahler et al., 1975, p. 93) accompanied by the toddler's pleasure in sharing with both parents and in interacting with familiar others. Significantly, however, temper tantrums and other indications of heightened vulnerability, helplessness and rage foreshadow the onset of intensified conflict and struggle.

The "Rapprochement" Crisis

During the middle of the "rapprochement" subphase, the toddler's awareness of separation is more painful and acute than ever before. Caught in conflict, he wants to function autonomously and believe in his omnipotence, but he also wants the mother to meet his needs without his having to acknowledge them (Mahler et al., 1975). To undo the painful fact of separation, he sometimes forces the mother to function as an extension of the self (Mahler, 1968a). For example, he may merely make some gesture and expect the mother to magically understand and fulfill the wish behind it; or he may use the mother's hand to obtain an object he wants. Despite her presence, he sometimes becomes anxious as though she had left or, upon reunion, seems for a moment not to recognize her. Mahler et al. (1975) suggested that given the increased awareness of the mother's separate existence, these seemingly paradoxical behaviors could result from the stress caused by that awareness or the conflict between wanting both autonomy and symbiotic omnipotence. Consequently, the toddler may alternate between distancing from the mother and clinging to her. Yet, typifying the ambivalence of the "rapprochement" crisis, the child tends to hesitate undecidedly, desiring both at the same moment.

Further, the mixed reaction of anxiety and interest in the stranger, frequently reappears with a "self-conscious turning away... as if the stranger at this point constituted a threat to the already toppling delusion or illusion of exclusive union with the mother"

(Mahler et al., 1975, p. 93).

Various behaviors, such as the suppression of crying, indicate the toddler's ongoing struggle with disappointment in his mother, awareness of his dependency, and feelings of sadness and rage (Mahler et al., 1975). Yet, reflective of his ambivalence, the "rapprochement" crisis is most often dominated by "general dissatisfaction, insatiability, a proneness to rapid swings of mood and to temper tantrums" (Mahler et al., 1975, p. 95).

Heightened concern with the mother's presence accompanies the "rapprochement" crisis. The toddler may cling to her at the moment of separation and, subsequently, appear depressed while engaging in play. Of particular importance, therefore, are his established methods of dealing with separation. Having achieved the concept of "object permanence," the toddler derives some comfort from knowing that his mother can be found elsewhere. In addition, different types of identifications with significant others also help him defend against the increased vulnerability that his acute awareness of separation brings on.¹⁸

The toddler now develops two future additional mechanisms of coping with separation. Based on his capacity for symbolic thinking, he begins utilizing the defense of "splitting," defined as

...the clinically observable phenomenon that, when both longing and anger occur at the same time (our definition of ambivalence), the child, in order to preserve the good object image, will (during the mother's absence) separate the

¹⁸ Mahler et al. (1975) dates the beginning of empathy to this period of both increased vulnerability and true identification.

longed-for image of the love object from the hated image of it (Mahler, 1968a, p. 224).

The toddler directs his rage toward another person present and continues to long for the thus protected, "good mother." When the mother returns, the split in inner representations is no longer maintained and ambivalence is again directed towards the mother (Mahler, 1968a).

Other behaviors displayed by the toddler during separations from the mother have been viewed as "transitional phenomena" designed to mitigate the child's longing for the mother (Mahler et al., 1975). The child may form an attachment to some object or place associated with the mother and thus retain a connection to her. Food or the bottle sometimes assumes great importance for the toddler when mother is absent.

Resolution and Individuation

The closing of the third separation-individuation subphase is ushered in, at approximately 21 months, by a decline in those behaviors which formerly reflected the conflicts of the "rapprochement" period. The toddler, at this point, becomes less susceptible to extreme separation anxiety, less insistent on omnipotence and control, and less demanding of both contact and distance. Instead, he seems better able to function at some distance from and even temporarily without the mother (Mahler et al., 1975).

At this developmental juncture, the capacity to cope with the intrapsychic and actual experience of separation and the related degree

of separation anxiety vary considerably. The awareness of separation affects each toddler's relationship to his mother and father in a unique way. Similarly, the specific patterning and integration of his developing ego functions determines the coping mechanisms he establishes. Together, then, the history of the primary relationships and the vicissitudes of the individuation process influence the ability to function separately and the beginning formation of identity (Mahler et al., 1975).

One added factor complicates the already enormous developmental challenges of the "rapprochement" period. By the time it draws to a close, at approximately the 24th month, the discovery of the anatomical sexual difference--and with it, the emergence of envy--has occurred.¹⁹ In response, the girl may turn to the mother with blame, disappointment, or demands for compensation for the narcissistic injury incurred. Particularly for girls, the awareness of the anatomical sexual difference may intensify the ambivalent tie to the mother and compound the difficulties of separation.

In short, this very important "final phase" of "rapprochement" as intrapsychic development seemed to be the summation of the solution of the many maturational developmental tasks that each individual child had arrived at during the course of his particular subphase development, up to the beginning of the fourth phase (Mahler et al., 1975, p. 104).

¹⁹For further discussion of the timing of this event, see Mahler et al., 1975, p. 104.

Summation

The processes of separation and individuation peak during the third subphase, confronting the toddler with developmental challenges and intrapsychic conflicts of unprecedented enormity (Mahler et al., 1975). Toward the end of the "practicing" subphase, the height of exploration, mastery and elation, he has begun to encounter stumbling blocks en route to autonomous functioning and suffers from the realization of the unattainability of instant rescue. Aware of his mother's separate existence and his own feelings of powerlessness, he must relinquish the security of symbiotic oneness and magical omnipotence. Heightened bodily awareness, accumulating oral, anal and genital pressures, and discovery of the anatomical difference must simultaneously be dealt with (Mahler et al., 1975). Fear of object loss is partly ameliorated through symbolic play and processes of identification, and other adaptive and defensive mechanisms. At the same time, however, internalization of the parental standards engenders sensitivity to their approval and disapproval, and the fear of losing their love (Mahler et al., 1975).

Despite considerable struggle and strain, the child utilizes his growing ego resources to gradually fashion his own distinct solutions to the tasks and conflicts of the "rapprochement" subphase.

The Fourth Subphase

Overview

The child's resolution of the "rapprochement" crisis influences the events of the next and last subphase of separation-individuation. The firm distinction between self and object representations that is attained during this period lays the groundwork for major structural progress. Along the developmental line of separation and individuation, respectively, a degree of libidinal object constancy and of stable self-identity are established (Mahler et al., 1975). The mother is perceived as existing separately and autonomously in the external world and simultaneously gains a fixed place in the child's internal world. The child's separate autonomous functioning expands considerably and a stable, self-image is likewise formed.

It has been noted that intrapsychic development, during this period, is particularly difficult to discern with certainty. The formation of self and object representations proceeds with substantial variability among different children. In addition, these structural processes must now be inferred from the various forms of symbolic expression available to the child. Developmental formulations of the fourth subphase have therefore been regarded as "more speculative and tentative" than those of previous phases (Mahler et al., 1975).

Because the establishment of libidinal object constancy and of self-identity both represent ongoing developmental processes, the beginning and end points of the fourth subphase are difficult to

specify. Moreover, intraindividual variability has, by now, increased greatly. Thus, it has been emphasized that during the third year of life a "certain degree" of object constancy is attained and "certain aspects" of individuality consolidated (Mahler et al., 1975). Further, the fourth subphase is thought to begin toward the end of the second year and to continue in an open-ended fashion.

The Attainment of Object Constancy

As noted in the discussion of the first separation-individuation subphase, divergent viewpoints surround the question of when object constancy is established. The discrepant views derive from differences in the definition of the term "object constancy" and in the presumed criteria for its attainment (Fraiberg, 1969). Because of the momentous consequences of this achievement for development, closer examination of the differences is warranted.

Derivation and definition of the term. In studying the development of the mental representations of physical objects, Piaget (1937) found that by 18 to 20 months "object permanence" is generally well-established. Not until then has the infant formed "a full representation of the object as existing in space in its own right and separate from his actions upon it" (Pine, 1974, p. 308). Subsequently, the concept of the object continues to develop as it accrues additional meanings for the child.

Psychoanalytic theory introduced the term "object constancy"²⁰

²⁰In general psychology, the "constancy" of an object denotes that the object "'preserves its essential character despite variations introduced into the situation surrounding it' (Werner, 1957, p. 108)...(it) implies autonomy from the subject and his perceptions or his actions" (Fraiberg, 1969, p. 11).

related to Piaget's findings on physical objects, broadened its definition to include the dimension of human object relations (Hartmann, 1952, 1953) and used the term "object constancy" in reference to the libidinal object (mother).²¹ The psychoanalytic definition of "object constancy" thus embraced both a libidinal and a cognitive aspect, i.e., both the establishment of lasting libidinal ties to the mother and recognition of the mother as "separate and autonomous from the infant self" (Fraiberg, 1969, p. 20).²²

As is the case with "object permanence," the achievement of "object constancy," of a whole and permanent mental representation of the libidinal object, reflects a gradual process that undergoes developmental change (Pine, 1974). In contrast with the attainment of (physical) "object permanence" at 18 to 20 months, however, the establishment of "object constancy" cannot be dated at a specific time in development. Indications of a libidinal attachment to the mother that is relatively independent of need satisfaction begin to appear as early as the middle of the first year in the infant's specific and differential responses to her. Yet, the cognitive component of "object constancy" does not appear until much later in development (Pine, 1974).

²¹ This author has done likewise in the discussion that follows.

²² Note that A. Freud used "object constancy" only in its libidinal sense and excluded its cognitive connotations. The problematic aspects of this use of the term are discussed by Fraiberg, 1969.

Divergent views on the prerequisites and timing of "object constancy." Basic agreement exists concerning the formation of an exclusive, libidinal tie to the mother during the first year. The controversy about "object constancy" focuses instead on the criteria and evidence for the cognitive correlates of the libidinal attachment. More specifically, differences center on whether the objectivization of the mother and the formation of a stable mental representation of her accompany the infant's libidinal investment in her and are preconditions for "object constancy." Further complications result from the use of disparate definitions for the term "mental representation" (Fraiberg, 1969).

Two conceptual distinctions help to clarify the controversial issues. The first is Piaget's distinction between "recognition" and "evocative memory."

Recognition can take place when the person or "thing" perceived has characteristics or signs which revive mnemonic traces laid down through previous experience. The test for evocative memory is the demonstrated capacity to evoke the image without the presenting stimulus (Fraiberg, 1969, p. 22).

Through empirical studies of cognitive development, Piaget (1937) found that the capacity for evocative memory was not demonstrated until 18 months, prior to which only recognition memory existed (Fraiberg, 1969).²³

²³ The ability to evoke the image of the absent object was found to correlate with the appearance of speech, deferred imitation, play and imagery, all of which reflect the development of symbolic operations (Piaget, 1936).

A second useful discrimination has been made between "mental registrations" and "mental representations" (Beres, 1968, cited in Fraiberg, 1969), with the latter used exclusively to designate the capacity for evocative memory.

In light of these two distinctions, the crucial issue in regard to "object constancy" becomes the developmental age at which evocative memory permits the child to retrieve a mental representation of the mother when she is not physically present.

It has already been noted that Spitz (1965) views the eighth month stranger anxiety as an indication of the child's capacity to evoke "'a stable, consistent memory image' (i.e., mental representation) of the mother" in her absence (Fraiberg, 1969, p. 16).

Mahler also links the attainment of a certain degree of "object constancy" to the reliable retrieval of a stable mental representation of the mother. In contrast with Spitz, however, Mahler et al., (1975) maintains that a degree of "object constancy" is established not when stranger anxiety appears but when the child is able to "remain away from the mother for some length of time and still function with emotional poise, provided he is in a fairly familiar environment" (Fraiberg, 1969, p. 19). It is following "rapprochement," between 24 to 36 months, that the unified internal image of the mother becomes intrapsychically available to the child, irrespective of his need state, and enables him to better tolerate temporary separations from her as he did during the earlier "practicing" phase.

Further differing with Spitz, Mahler (1968a; et al., 1975)

relates the development of "object constancy" to the establishment of "object permanence" at 18 to 20 months, recognizing, however, that the libidinal investment in the human object influences the rate at which the concept of its permanence is acquired. The establishment of "object constancy" is a function of numerous developmental processes, of the toddler's fluctuating moods and ego states, and of the mother's prevailing affect (Mahler, 1968a). The attainment of "object permanence," therefore, does not guarantee libidinal "object constancy" but rather provides the necessary cognitive potential for its attainment (Pine, 1974). Moreover, the image of the mother may be defensively distorted by the child as he deals with ongoing libidinal and aggressive strivings even after the 18 to 20 month achievement of "object permanence." Thus "many complex, conflictual and conflict-free processes seem to go on in the child in the course of the third year, rendering 'object constancy' a still rather fluid and reversible attainment" (Mahler et al., 1975, p. 112). He struggles to reach it and then maintain it.

Given the frequency of the child's contacts with the libidinal object and the heightened drive states which characterize them, Mahler et al. (1975) do not rule out the possibility that certain aspects of the internal representation of the mother may be formed prior to 18 to 20 months but not necessarily consolidated.²⁴

²⁴cf. Mahler et al., 1975 for a discussion of the controversy over whether libidinal "object constancy" precedes or follows "object permanence."

"the presence of intense libidinal and aggressive ties to the object may...make for more rapid and less fixed attainment of a permanent representation of a permanent object' (Pine, 1974...)," (Mahler et al., 1975, p. 112). In conclusion, Mahler et al. (1975) maintain that the establishment of libidinal "object constancy" rests on a variety of complex processes and gradually achieves relative stability, in normal development, by the age of three.

Critique of divergent viewpoints. Spitz's interpretation of eighth month stranger anxiety as an indicator of the capacity to evoke a stable, mental representation of the mother poses several problems. First, it contradicts Piaget's 18-month criterion for evocative memory. Supporting Spitz's position, it has been argued that Piaget's data concerns affectively neutral inanimate objects, it is not applicable to the highly invested human object. On the other hand, it has also been argued that the high priority of the libidinal object influences only the "temporal sequence" of related cognitive events but does not alter "the structure of the cognitive act" (Fraiberg, 1969, p. 32). In comparing the cognition of persons and things, the libidinal investment in the human object does not implicate different mental operations for the formation of the object representation, or a different type of internal image, or different criteria for the objectivization of the human object. Therefore, it has been argued that Piaget's findings can provide a useful "baseline" for determining the age at which libidinal "object constancy" is achieved (Fraiberg, 1969; Pine, 1974). Further, as summarized

by Fraiberg (1969), several attempts have been made to reconcile Spitz's contention that libidinal "object constancy" is established at eight months with Piaget's assignment of the establishment of "object permanence" to 18 months. These attempts ascribe temporal precedence to evocative memory for the human object because of its libidinal status. Yet placement of "object constancy" at eight months would still leave open the question of why a ten-month gap exists between the attainment of evocative memory for the human objects and for physical objects. For, "If, in fact, there is a generalization in memory from the person to the thing,...such a generalization should take place without marked delay" (Fraiberg, 1969, p. 35).

The second problem raised by Spitz's position concerns his behavioral criterion proposed for "object constancy." Does stranger anxiety, as he maintains, constitute sufficient evidence for the evocation of a consolidated, permanent representation of the mother irrespective of situational factors? Spitz acknowledges that stranger anxiety emerges in a "special stress situation" and that though he considers it "highly probable" that the eight-month old infant can evoke the mother's image "at all times and under less stressful circumstances" (Fraiberg, 1969, p. 17), he has not, in fact, examined this question through observational research. Further, it would seem that the display of anxiety in response to a stranger does not necessarily demonstrate evocative memory for the mother (Fraiberg, 1969). Spitz explains the eighth month

stranger anxiety as follows: "'the stranger's face is compared to the memory traces of the mother's face and found wanting. This is not the mother, she is lost. Unpleasure is experienced and manifested' (Spitz, 1957)" (Fraiberg, 1969, p. 17). This realization that the mother is "lost," however, need not depend on the evocation of a unified mental representation. "Mental registrations" or "memory traces" of the mother's face may be sufficient for discriminating between the mother and the stranger. Indeed, "the act of nonrecognition (of the stranger) may only tell us that recognition memory has progressed to a certain level of complexity" (Fraiberg, 1969, p. 23), without implying evocative memory. Finally, the appearance of stranger anxiety may actually argue against the presence of "object constancy." The distress evoked by the approach of a stranger is related to fear of the loss of the mother. Yet the evocation of an internal representation of the mother should actually mitigate that fear rather than intensify it. Thus, "if a mother is 'lost' when she is not perceived, this may be taken as evidence that the mental image of the mother is still unstable, is not independent of perception, and requires affirmation for visual experience" (Fraiberg, 1969, p. 24).

In sum, the appearance of stranger anxiety at eight months does not convincingly demonstrate that "object constancy" has been achieved. Stranger anxiety is not independent of situational factors but is rather elicited by stressful circumstances. It can reflect selective and differentiated recognition memory without

entailing evocative memory. It can signify that differentiated internal images exist, without implying a unified, stable mental representation of the mother. The phenomenon of stranger anxiety only demonstrates the existence of a strong, exclusive libidinal attachment. As proposed by Mahler (1968a), more valid evidence of libidinal "object constancy" can be found in the toddler's growing capacity to tolerate brief separations from the mother. Only when the child can evoke a solidified mental representation of her does she become intrapsychically available to him and thereby enable him to maintain "emotional equilibrium" in her absence. In fact, it has been argued that separation anxiety peaks from 8 to 13 months precisely because

...the libidinal bond has been forged, (and) the mother is recognized as the all-important, indispensable person, but there is not yet a stable mental representation of the mother that can sustain the child during brief separations (Fraiberg, 1969, p. 25).

Implications for structural and functional development. The gradual attainment of "object constancy," as formulated by Mahler, advances the structural and functional development of the ego and object relations. During the earlier developmental stage of "need satisfaction," the infant can retain an image of the maternal object only as long as a need state prevails.²⁵ Yet as a stable image of the libidinal object is gradually internalized, and as greater

²⁵ cf. A. Freud, 1953, for a discussion of the stage of "need satisfaction."

degrees of "object constancy" are established, the image can be sustained regardless of the child's internal state (Hartmann, 1952). "The maternal image becomes intrapsychically available just as the actual maternal object was available as part of external reality during the need-satisfying stage" (Mahler, 1968a, p. 223).

The mother's "intrapsychic availability" benefits the child enormously. Given his capacity to sustain a more specific, constant image, the child is no longer dependent on the mother's physical presence to function stably. In her absence, he can find in the internal libidinal object the "sustenance, comfort, and love" which the "actual mother" has formerly provided (Mahler, 1968a; Pine, 1974). Similarly, the appearance of "transitional phenomena" demonstrates that the child can make use of another person or of a place or inanimate object which is symbolic of the mother, because she remains intrapsychically available to him.

The carrying power of the internal image of the mother, by contrast with the situation in the stage of stranger anxiety, affords the child the capacity to utilize a symbol, plus the internal image of the mother, until the actual "mother²⁶ in the flesh" returns (Mahler, 1968a, p. 224).

The fact that the child can feel close to the mother by way of the internal image frees him to more fully practice and enjoy his autonomous functions and thus reconciles his co-existent needs for

²⁶Note Mahler's (1968a) distinction between the child's earlier use of a substitute for the mother (during the stage of need-satisfaction) and this utilization of a symbol made possible by the mother's intrapsychic availability (pp. 223-224).

autonomy (Pine, 1974). Later on in development, the extent to which the individual remains dependent on the object's physical presence in order to feel comforted and loved directly influences his capacity to internally regulate self-esteem (Pine, 1974).

In addition to representing the intrapsychic availability of the maternal image, the attainment of "object constancy" also signifies "the unification of the multiple 'good' and 'bad' aspects of the mother in a single broader representation" (Pine, 1974, p. 312). Even when frustrated or angry, the child can retain this unified image and relinquish his defensive "splitting" of the loved and hated object representations (Mahler, 1968a; Pine, 1974). In terms of drive organization, unification of the "good" and "bad" object fosters the fusion of aggressive and libidinal drives (Mahler et al., 1975; Spitz, 1965). Therefore, as "object constancy" develops, "the object image is increasingly invested with predominantly libidinal and neutralized energy" (Mahler, 1968a, p. 224).²⁷

Just as the availability of the maternal image provides closeness while preserving autonomy, similarly, unification of formerly "split," "part-object" representations promotes stable functioning. It "serves to temper rage and disappointment by connecting them with the memories of the loving as well as the frustrating

²⁷The original conception of the neutralization of aggression through drive fusion is discussed in Hartmann et al. (1946, 1949) and Kris (1955).

actions of the mother" (Pine, 1974, pp. 311-312). Thus, with the unification of part-images, the child's simultaneous awareness of the mother's "good" and "bad" features enables him to modulate intense and potentially disruptive affect (Mahler et al., 1975; Pine, 1974).

One additional function of "object constancy" derives from transformations of the maternal object representation that occur over time. Though the attainment of "object constancy" fosters structural unification and permanence, the quality of the image undergoes a process of continual change throughout development. "The internal representation of the libidinal object...does not remain static any more than does anything else in human development. It is reshaped and extended not only with the growing cognitive capacities of the developing person but also with his encounter with and resolution of the emotional issues of each new stage" (Pine, 1974, p. 312). As development proceeds, the individual utilizes the internal object representation to meet the particular needs that arise within each successive phase. He fashions it to serve inner wishes and external demands. By way of selective recall of memories, he can even improve upon the actual object as it exists in reality (Pine, 1974).

The broad developmental implications of the attainment of "object constancy" delineated above introduce new dimensions to the

question of its timing in development, for "the time when certain aspects of libidinal object constancy are possible...is quite a different time from that of the individual's ability, functionally, to make use of the attained object constancy" (Pine, 1974, p. 307). The structural establishment of "object constancy" alone does not determine when or even whether "object constancy" will serve its potential functions in development. The enormous variability in development highlights this point. Thus, for example, while unification of the part-images is generally fairly well established by the age of three, the regulation of extreme longing or rage may be attained at different times, to widely varying degrees, and sometimes not at all (Pine, 1974). In the latter instance, modulation of affect is not possible because intense disappointment or rage renders the loving memories of the primary object inaccessible. Alternately, when deep longing is felt, hurtful memories of the love object are lost. Differences likewise exist between people and within individuals over time in their ability to derive emotional sustenance from the internal object representation. This varying dependence on the object's physical presence for emotional well-being accounts for individual differences and internal fluctuations in the maintenance of self-esteem.

The Formation of Self-Identity

While the establishment of a degree of "object constancy" in the fourth subphase signifies major progress toward increased separation, the corresponding advances toward greater individuation are the be-

ginning achievement of individuality and the beginning consolidation of a unified and stable self-image (Mahler et al., 1975).

Individuation is significantly advanced by the rapid development and differentiation of ego functions which occurs between 20 (or 22) and 30 (or 36) months (Mahler et al., 1975). The unfolding of complex cognitive functions characterizes this period. Though gestural language and affectomotility are still evident, the development of verbal communication is now accelerated and gradually replaces other modes of communication. Fantasy productions emerge in role-playing and make-believe play which, like speech, reflects progress in the development of symbolic thought. The various forms of play are further elaborated by way of increasing purposefulness, more detailed familiarity with the real world, and growing interest in persons other than the mother. A beginning sense of temporal and spatial relations augments reality testing and heightens tolerance for frustration and separation.

The stable sense of identity attained during the fourth subphase originates from various sources (Mahler et al., 1975). The "far-reaching structuralization of the ego" considerably furthers the sense of self (Mahler et al., 1975, p. 109). As a "primitive consolidation of gender identity" takes place, individual characteristics are recognized and incorporated into the self-image. Further, genuine ego-identifications provide the basis for the now unified self-image. Lastly, the ongoing need for autonomy engenders the recurrence of moderate negativism, critical for the establishment of iden-

tity.

Determinants of the Establishment of Object Constancy and Identity

Successful fulfillment of the two primary tasks of the last separation-individuation subphase is dependent on all aspects of psychic development. The gradual attainment of libidinal object constancy is a "complex and multidetermined process" (Mahler et al., 1975). "It is the product of the total experience of the infant organism in the earliest months and years, which includes cognitive as well as emotional development" (Pine, 1974, p. 313). Similarly, the totality of preceding and ongoing developmental events influence the nature and degree of identity integration (Mahler et al., 1975). Thus, the achievement of both object constancy and of individuality can be facilitated or threatened by a wide variety of factors.

Mental representations of the maternal object and the self form the basis of object constancy and the sense of self, respectively. The quality and stability of these inner images originate in the daily realities of the mother-child relationship. The trust and confidence generated by the mother's faithful caretaking from the symbiotic phase onward are fundamental determinants of libidinal object constancy. The child's responses to the mother's empathy and need-satisfaction generalize to his entire psychosocial environment and thereby influence the character of his emerging individuality (Mahler et al., 1975).

Given an unsatisfactory mother-child relationship, "great ambivalence may ensue which continues to mar smooth development toward emotional object constancy and sound secondary narcissism" (Mahler

et al., 1975, p. 117). The latter lays essential foundations for a stable sense of self. Parental intrusiveness and/or inconsistency, for example, may disrupt the ego's capacity to modulate affect. The tendency to split the object world therefore prevails and precludes the formation of a unified and constant object representation. Similarly, when parental behavior fosters awareness of separateness too precipitously, the sudden and painful recognition of helplessness deflates the sense of omnipotence too abruptly. In both instances, the self-esteem critical for the consolidation of identity is precariously maintained.

Developmental progress toward the attainment of object constancy and self-identity is affected by the level and quality of ego functioning, as well as of object relations (Mahler et al., 1975). As discussed above, the achievement of object permanence is a necessary, though not sufficient, cognitive prerequisite of object constancy. The emergence and characteristics of individuality and the sense of self correspond directly to the expansion and quality of the ego functions. Reality testing and frustration tolerance are among the ego functions most involved in the establishment of unified and constant self and object representations.

Drive endowment and development can also promote or threaten the two developmental achievements under discussion. Drive maturation poses new challenges in each successive phase of development. During the anal stage, libidinal object constancy and self-identity are both affected by the outcomes of the child's struggles with toilet train-

ing. Early in the phallic phase, the awareness of anatomical sex differences can threaten the boy's sense of body integrity and the girl's developing narcissism (Mahler et al., 1975). The ego mechanisms used to cope with each new task determine the consequences of drive maturation for libidinal object constancy and for the various aspects of self-identity.

Finally, both the unpredictable events of each child's life and its recurrent themes figure significantly in his solutions to the major tasks which conclude the separation-individuation processes of the early years.

CHAPTER V: A PROPOSED EGO PSYCHOLOGICAL
MODEL OF CHILDHOOD PSYCHOSIS

INTRODUCTION

The literature review presented in Chapter I indicated that childhood psychosis has been principally investigated by way of descriptive and etiological models. The highlights of an alternative, ego psychological model, presented in Chapter II, then demonstrated the comparative diagnostic, psychotherapeutic, and conceptual advantages of that approach. Subsequently, in Chapter III, the literature on childhood psychosis consistent with ego psychological theory was reviewed, and aspects of the author's proposed ego psychological model were anticipated.

Given the ego psychological view of normal childhood development explicated in Chapter IV, the purpose of the following chapter is to apply that theory of development to the clinical tasks of diagnosing and treating childhood psychosis. General principles of diagnostic assessment and psychotherapeutic treatment based on ego psychological concepts of normal development will be presented and then discussed specifically in relation to childhood psychosis. Since some of the literature on childhood psychosis incorporates aspects of ego psycho-

logical thinking, the model proposed below will partly draw on concepts already introduced in the earlier summary of that literature.

To briefly emphasize the basic premises of ego psychological theory and, hence, of the author's proposed model of childhood psychosis, ego psychology conceives of childhood psychopathology in terms of developmental processes which deviate to a lesser or greater extent from the normal developmental course. Its comprehensive, holistic theory of the unfolding of personality provides the necessary tools for assessing psychopathological distortions of normal development and, thus, for formulating corresponding and appropriate treatment approaches. Further, ego psychology defines normal development as the product of an ongoing and close interaction between intrinsic and extrinsic etiological variables and between ego and object relations development. "While the development of object relations is codetermined by ego development, object relations are also one of the main factors that determine the development of the ego" (Hartmann, 1950b, p. 105). The proposed approach to the diagnosis and treatment of childhood psychosis will therefore center on the integral relations between internal and external factors and the similarly interconnected development of these two sectors of personality.

A DEVELOPMENTAL APPROACH TO DIAGNOSIS AND TREATMENT

Principles of Diagnostic Assessment

THE ROLE OF DESCRIPTIVE DATA

Unlike the descriptive approach to childhood psychosis, the proposed ego psychological approach to diagnosis does not attempt to classify psychopathology with singular labels and does not base diagnosis on discrete, behavioral findings alone. In Chapter II, the author argued against directly correlating individual symptoms or clusters of descriptive symptoms with specific diagnostic categories on several grounds. First, descriptive classifications fail to account for the infinitely wide clinical variability among psychotic children, wherein any individual child may present varying numbers of the defined behavioral criteria, in varying degrees of severity, in addition to a unique constellation of symptomatic behaviors which are not included among the specified criteria. Numerous investigators (Metcalf, 1973; Rutter, 1971) have, in fact, noted that clear-cut, objective, behavioral criteria for childhood psychosis have not been adequately established. Second, descriptive diagnosis ignores the etiological issues, which, from an ego psychological viewpoint, are critical for understanding the developmental, structural and psychodynamic meaning of overt behavior patterns. Third, because manifest symptoms which appear identical can represent multiple etiologies, their mere identification does not illuminate the developmental matrix from which they arise. Lastly, the wide fluctuations

of symptoms within individual children, mentioned above, can be understood as resulting from the typical ebb and flow of development in children, defined by ego psychology in terms of regressive and progressive forces. Due to the fact that descriptive diagnoses are "static" while behavior is constantly changing as a function of developmental as well as circumstantial factors, descriptive systems of diagnostic classification are unsatisfactory for the diagnostic assessment of children.¹

Within the proposed ego psychological framework, observational, behavioral data are nonetheless most useful, and are, in fact, critical for diagnostic assessment. Observable behaviors are regarded as manifestations of underlying developmental processes and, as such, are utilized as "signs" or "indicators" of developmental attainments or failures. They are analyzed with reference to etiological, structural and psychodynamic considerations and therefore constitute the points of departure for in-depth exploration of underlying developmental processes. The implication of such a view is that in order to identify the developmental and psychopathological significance of any particular behavior and to also assess the total diagnostic picture, each developmental line must be thoroughly investigated both by itself and in relation to all other aspects of personality functioning. This position will be explicated below.

ETIOLOGICAL FOUNDATIONS

The proposed ego psychological model of childhood psychosis as-

¹cf. A. Freud (1965b).

cribes prominence to the role of etiological formulations within diagnostic assessment but diverges sharply from dichotomous "either-or" conceptualizations. In criticizing purely organic and environmental theories for their reductionistic views of the human organism and of psychotic conditions in children, the author maintained, in Chapter I, that neither the hypothesis of constitutional deficits nor of negative environmental influences alone can adequately account for the complex psychopathology of childhood psychosis. Further, the author pointed to numerous additional obstacles which both types of causal explanations pose for comprehensive diagnostic assessment.

Regarding organic theories, the composite findings of physiological impairments in psychotic children point to a broad spectrum of associated organic dysfunctions. Yet single deficit hypotheses fail to address this documented clinical heterogeneity. They also lack explanations for the absence of the particular deficit postulated in some psychotic children and for its presence in certain nonpsychotic children. In this connection, none of the organic theories adequately explain the fact that the majority of organic children are nonpsychotic. Another weakness of organic theories derives from the question of whether the deviant neurophysiology reflects primary organic deficits or secondary reactive manifestations. Because life experiences can produce structural modifications in physiology, biological abnormalities in psychotic children may represent the effect rather than the cause of childhood psychosis. Finally, organic factors may predispose a child to psychosis but in and of themselves do not nec-

essarily cause the disorder.

Similar objections were raised by the author in relation to psychogenic theories of childhood psychosis. Neither distinguishing characteristics in the parents of psychotic versus nonpsychotic children nor evidence of trauma in the histories of the psychotic children themselves have been conclusively demonstrated to exist. Further, parental psychopathology and traumatic experiences likewise impinge on the development of nonpsychotic children. Moreover, psychogenic theories also present difficulties in distinguishing primary and secondary development. Thus, while parental psychopathology may lead to psychotic adaptation in a child, severe psychopathology in a child can exacerbate parental pathology as well.

In keeping with ego psychological conceptions of normal development, the emergence of psychotic disorders in children is viewed by the author as the outcome of continuous, circular interactions between innate and environmental variables. Only the postulation of complex, interactional processes can fully account for the manifold and enormously diverse clinical manifestations of childhood psychosis and provide a holistic conceptualization of its development. Diagnostic assessment of childhood psychosis, in particular, must therefore strive to articulate, to the greatest extent possible, the exact nature of extrinsic and intrinsic etiological factors and their interacting contributions to deviant development.

Identification and clarification of environmental variables includes the investigation of past and present parental psychopathology,

consistent in changing circumstantial factors, and specific traumata and crises. Exploration of the qualitative and quantitative aspects of the early mothering patterns is crucial in the diagnostic assessment of childhood psychosis. Given the notion of "phase specificity" in development, examination of the timing as well as the intensity and duration of adverse environmental influences facilitates the understanding of their diagnostic significance. The concept of "phase continuity" points to the need to trace the effects of negative external factors, in interaction with constitutional variables, throughout the course of development.

Just as the behavioral traits of psychotic children exceed the number, intensity and duration of parallel phenomena in nonpsychotic children, so too the biological deviations found in psychotic children often exceed the range of normal variation. Abnormalities in neurology and physiology, in behavioral and maturational patterning, in drive endowment and impulse tendencies, and in sensory sensitivity characterize their constitutional make-up and should be investigated in the course of diagnostic procedures. Questions regarding pre- and perinatal events, early drive and impulse levels, neonatal disposition and traits, maturational rates of physiological growth—especially the cognitive, perceptual, and motor apparatus—and, finally, the developmental progress of autonomous ego functions collectively illuminate the influence of organic factors on the psychotic child's development.

The diagnostic evaluation of etiological factors must be aimed

toward assessing the interactional effects of environment and endowment on development. Pertinent questions to be investigated include the following: What are the mother's attitudinal and behavioral responses to the various components of the infant's constitutional make-up? How did the child respond to the mother's ministrations or lack thereof? Were sufficient opportunities provided for the learning and practice of the autonomous ego functions as they emerged or was their development thwarted, and if so, how? Was the child able to utilize the stimulation provided? How did the environment meet the child's shifting needs as he struggled with the new developmental tasks of each successive phase? Needless to say, the diagnostician's inquiry in all areas must be guided by the unfolding of the material reported and by the hypotheses it promotes.

DIAGNOSTIC INVESTIGATION OF PERSONALITY FUNCTIONING AND DEVELOPMENT

General Guidelines

The proposed ego psychological approach to the diagnostic assessment of childhood psychosis is an application of general ego psychological principles of assessment to the specific case of psychotic disorders in children. A brief overview of general guidelines to the diagnostic process will therefore provide a useful orientation to the particular issues involved in the diagnostic investigation of psychosis in children.

Ego psychological theory equates the task of diagnostic assessment with the task of judging the normality of the personality and

the intactness of the entire developmental process, the latter being defined in terms of the structuralization of the personality and the presenting modes of functioning (A. Freud, 1945, 1966a). Each line of development is evaluated in relation to all other developmental lines and is seen in the total environmental and physiological context.

In the ego psychological theory of development the interactions of drive, ego and object relations are viewed as determining the structural and functional unfolding of the personality. Given that these three sectors of personality comprise the major avenues of diagnostic investigation, the clinician might obtain a developmental history by directing his inquiry along each major developmental line and by attempting to integrate them as he proceeds. Alternately, his questioning might be guided by the sequence of object relational phases and aimed at eliciting information about the parallel ego and drive developments within each phase. His further purpose in gathering parental reports and in interviewing the child would be to obtain a comprehensive picture of the child's current personality functioning. Depending on the age of the child, he himself might provide valuable information regarding his own experience of his past and present and of his internal and external realities.

Regardless of the particular line of inquiry pursued, certain basic information is needed to judge the nature and degree of psychopathology, i.e., of personality disruption, present. Because the

structural foundations of ego and object relations development are built up during the early object relational phases, the latter should be investigated, with special attention paid to the "emotional climate," the "circular interactions," and all the expected developmental phenomena associated with the autistic, symbiotic and separation-individuation phases. The age of the child at the time of the diagnostic inquiry may lead the clinician to also explore object relations within the family network during and beyond the oedipal period and within the child's peer group during the latency years. An understanding of the child's reactions to entering school and to the increasing demand for peer involvement will shed light on the ways and extent to which separation-individuation tasks have been mastered.

Consistent with a principal emphasis of ego psychology, the proposed approach to diagnostic assessment advocates the study of the emergence and current developmental levels of all ego functions, including reality relations, drive control and regulation, secondary thought processes, and the defensive, autonomous and synthetic functions of the ego. The balancing, coordinating and integrating functions determine the overall level of personality organization and reality adaptation and, therefore, merit considerable attention in diagnostic evaluation. The effectiveness of the synthetic processes is reflected in the stability of ego functioning and the "fitting together" of personality structures. These, in turn, are measurable in terms of 1) inter- and intrasystemic conflict, 2) the relative strength of progressive and regressive tendencies,

as manifested in "reversible" and irreversible regressions, and 3) the "equilibrium" within and between psychic structures, between maturational and developmental attainments, between processes of differentiation and integration, and between the child and his environment. Beyond evaluating the strength of progressive forces, assessment of other aspects of personality which promote internal equilibrium—i.e., "high frustration tolerance," "good sublimatory potential," and "effective means of dealing with anxiety" (A. Freud, 1965a)—addresses the diagnostic questions pertaining to the stability of personality functioning. Lastly, the "elasticity" versus rigidity of thought and action offers an additional index of the extent to which stable, satisfying and efficient mastery of the environment has been achieved.

Early drive development may be readily examined within the context of mother-child interactions during the early stages of object relations. Pertinent questions concern the differentiation, neutralization and fusion of aggressive and libidinal drives and the shifting balance between them. The expression, control and regulation of these two primary drives and of oral, anal and phallic strivings are elucidated via the exploration of early and current ego and object relations functioning.

Finally, the decisive interaction between the drives, the ego and object relations, throughout development and in present personality functioning, is an important aspect of diagnostic assessment in the proposed ego psychological model.

Application to Childhood Psychosis

When initial diagnostic impressions suggest severe psychopathology, the clinician's knowledge of psychotic development in children directs his diagnostic inquiry within the general areas outlined above. A broad conceptualization of childhood psychosis, based on theories consistent with ego psychology, views pathological distortions of the normal phases of ego and object relations development, within the early mother-child relationship, as giving rise to psychotic disturbances in children. The author's ego psychological model thus defines the diagnostic assessment of childhood psychosis in terms of understanding the developmental unfolding and current nature of the distorting personality processes.

More specifically, the psychotic child is thought to have missed early experiences with the maternal object which are essential for the normal establishment of ego functions and object relations. The distortion or absence of a gratifying symbiosis prevents entrance into the separation-individuation phase and precludes the internalization of a stable mental representation of the mother. Because self-object differentiation, object constancy, and a consolidated self-identity are consequently not established, diagnostic evaluation entails a search for historical evidence and continued behavioral manifestations of these developmental failures. The mother is questioned about her emotional and caretaking involvement with the neonate and signs of maternal insufficiency are noted. As the degree of quiescence and

satisfaction demonstrated by the infant is investigated, attention is paid to suggestions of primary autistic symptoms. The quality and intensity of the attachment the infant has formed to the mother are assessed via data concerning the presence or absence of the fifth-month, specific smiling response, the quality of the infant's perceptual and motoric behaviors, and the nature of his reactions to separations. If a specific, symbiotic tie appears to have been achieved, both the mother's and the child's responses to the challenges of separation-individuation, introduced by the maturational advance in locomotor functions, are investigated. Evidence of secondary withdrawal and/or diffuse, panic reactions would suggest the presence of autistic and/or symbiotic types of early childhood psychotic manifestations. Diagnostic observation of the psychotic child would then reveal object relationships characterized, for example, by faulty differentiation between self and other, inadequate discrimination between persons, emotional detachment, intense ambivalence reflected in alternation between anxious clinging and exaggerated antagonism, and imitative behaviors in place of genuine identifications. Throughout the exploration of the early object relations phases, close attention is paid to organic, as well as environmental, influences on development.

Deviant patterns of mother-child interaction and developmental arrest at the part-object stage result in "severe disturbances of ego development" in psychotic children (Weil, 1953a). Faulty "differentiation" and "integration" processes lead to the impairment

of specific ego functions and of the overall stability, evenness, hierarchical organization, and synthesis of ego functioning.

Diagnostic assessment seeks to determine whether such ego impairments have been caused by developmental arrest, regression and/or delay and to identify the disparities between maturational and developmental progress. These deviant processes account for the typically defective reality testing, faulty defensive operations, poor drive control, and impaired synthetic functioning in childhood psychosis. In the course of assessment procedures, therefore, diagnostic significance is attributed to manifestations of primary process thinking and a generally weak sense of reality, primitive and brittle defense mechanisms, diffuse and unmodulated aggression, and extremes of behavior and affect.

Further, faulty development or regression in childhood psychosis likewise gives rise to abnormal patterns of ego functioning. The imbalance between maturational and developmental processes fragments ego functioning (Mahler, 1968a). Consequently, examination of coexisting, disparate levels of cognitive and emotional development is critical in the diagnosis of psychotic disorders in children. Specific ego strengths and weaknesses are delineated in terms of intact versus impaired and precocious versus retarded ego functions, and, also, in terms of their interactions. Psychological testing can be useful in mapping out the "scatter" or variability within and between individual ego functions, provided that the child is developmentally ready to cooperate with test procedures and produce

analyzable test data. A major diagnostic goal of the proposed ego psychological model is thus to "assess and describe the nature, degree, and interrelatedness of the distortions of each specific ego function" (Cain, 1969, p. 139), while also identifying advanced, "isolated" abilities.

"Ego fragmentation" (Rank, 1949; Rank & Macnaughton, 1950; Reiser, 1963) and defensive failure in psychotic children account for the vulnerability of the ego to internal and external stimuli. Evidence of unpredictable fluctuations in ego states—of the "fluidity of ego organization" (Ekstein & Wallerstein)—gives credence to and substantiates a diagnostic impression of childhood psychosis.

Finally, identifying the ways in which psychotic development compromises adaptation is an essential component of diagnostic assessment. The maladaptive aspects of the child's functioning demonstrate the day-to-day consequences and significance of his deviant ego and object relations development. As will be discussed in the following section, they likewise lead to the formulation of an appropriate treatment approach.

The Integration of Diagnosis and Treatment

In Chapter II, descriptive and etiological theories were criticized for their failure to conceptualize the relationship between diagnostic assessment and treatment methodology and to formulate a

treatment approach consistent with their diagnostic propositions. By contrast, the proposed ego psychological model of childhood psychosis integrates diagnosis and treatment, demonstrates their inseparability, and articulates treatment guidelines which derive from its developmental theory of psychosis in children. The comprehensive diagnostic and treatment approaches that are part of the model necessitate the continuation of diagnostic assessment throughout the course of psychotherapy. While the preliminary diagnostic hypotheses formed during the initial evaluation constitute the basis of a beginning treatment plan, only extended diagnostic assessment can guide the repeated modification of therapeutic interventions which is essential for effective treatment. Correspondingly, the data furnished by the treatment process itself contributes to the ongoing diagnostic evaluation.

Diagnostic formulations based on initial assessment procedures are limited by the quantity and nature of the information gathered and only generate a broad outline of the comprehensive developmental understanding ultimately desired. Parental reports are inherently biased by the repressive, selective and reconstructive processes of memory functioning which serve the psychodynamic needs and wishes of the parents. Information possibly obtained from school, medical and mental health professionals who have had prior contact with the child are subject to the same limitations though, hopefully, to a lesser degree. The behavior of the child in the office is likely to reflect the effects of the external circumstances and diagnostic

purposes of the interview(s). And, lastly, the time-limited diagnostic observation of the psychotic child permits observation of but a small portion of his potential range of behaviors.

Regarding the etiology of the psychotic disturbance, the above considerations and the complexity of the development and manifestations of childhood psychosis render it impossible to confidently ascertain the nature, extent, and timing of intrinsic and extrinsic etiological processes during the initial evaluation. Sufficient, complete, and unambiguous evidence of the specific factors which account for the development of the particular psychotic disorder cannot be obtained in several interviews and, sometimes, not even in the course of an entire treatment. The case material discussed in Chapter VI exemplifies the fact that treatment must often be initiated despite considerable uncertainty about etiological variables.

Beyond the inherent limitations of the data obtained from a preliminary diagnostic evaluation, several additional considerations necessitate the continuation of diagnostic assessment throughout treatment. It should appear self-evident that the broad and in-depth understanding of the developmental deviations of childhood psychosis, advocated by the proposed ego psychological approach to diagnostic assessment, cannot be achieved quickly. Because of the infinite complexity of the distorting developmental processes which result in the psychotic condition, comprehensive diagnostic assessment can only be accomplished by way of prolonged therapeutic investigation.

The author's premise, elaborated below, that the treatment

approach is guided by the diagnostic findings further dictates that diagnostic assessment not end when treatment begins. As a result of the treatment and of natural, developmental progress, the child's psychopathology changes. Thus, in order that the treatment remain appropriate to the presenting clinical picture, these changes must be continually reevaluated. In addition, the actual treatment process is a valuable source of diagnostic information which can be profitably utilized to confirm, modify or expand upon earlier diagnostic hypotheses. And because the therapeutic interventions are based on diagnostic formulations, the diagnostic data provided by the treatment process also furthers the treatment. Finally, it is commonly recognized that observing the effects of the treatment methodology on the process of the therapy and the progress of the child permits the assessment of the relative effectiveness of different therapeutic strategies. Therefore, the treatment is facilitated by its enhancing the understanding of diagnostic, developmental processes and of the assets and liabilities inherent in the treatment approach itself.

Just as diagnostic assessment, according to the ego psychological model of childhood psychosis, attends to all developmental facets of the disturbance, so too the treatment approach, described in the following section, addresses the multiple ways in which personality development has been distorted. While the entire treatment plan cannot be derived from the initial diagnostic formulations, the latter can facilitate the selection of a general orientation to

treatment. A largely interpretive approach, for example, would not be appropriate for the grossly arrested level of personality development of the psychotic child. Rather, the recreation of the early mother-child relationship between the therapist and patient is needed to establish the object relational context in which corrective development of deviant ego and object relations functioning can take place.

Subsequent to the preliminary diagnostic evaluation or shortly after the start of treatment, the child's general level of object relations development, his prominent psychotic defenses, and his most deficient areas of ego functioning become apparent to the therapist. He thus has guidelines for the level on which to begin relating to the child, for the interpersonal behaviors to attempt and to avoid, and for the major structural impairments around which to organize his treatment efforts. As the therapy proceeds, the child's needs in each of these areas become progressively clearer to the therapist as a result of his continued diagnostic and treatment evaluation. He learns how and when to approach the child and discovers the activities through which he can make contact. He begins to recognize the child's ego strengths which can be utilized to facilitate growth in areas of ego weakness. The latter likewise emerge with greater clarity. Additionally, the therapist's increasing familiarity with the organically-based limitations of the child's functioning help to determine appropriate therapeutic interventions and expectations.

Given that diagnostic assessment includes investigation of

etiological factors, it affords the therapist some understanding of the aversive environmental influences on the psychotic child's past and current development. The proposed ego psychological model incorporates counselling of the parents into the overall treatment plan. Initial and ongoing diagnostic assessment of extrinsic influences which contribute to the maintenance of the psychotic child's psychopathology dictates the focus of the therapist's work with the parents. It directs counselling efforts toward those environmental factors which need to be modified in order to alleviate stress on the child and to promote his development. If parental psychopathology or marital problems is severe, individual or couple's treatment may be recommended for them. Further, in familiarizing the therapist with the parents' personalities, diagnostic evaluation likewise helps the determination of approaches to working with them.

Diagnostic assessment of the psychotic child may indicate the need for a different school placement if the current classroom situation does not meet the special emotional and/or cognitive needs of the child. The child's organic deficits may also point to the necessity for supplementary remediation, in areas of cognitive, perceptual, and/or motoric impairment, which is then recommended to the parents. When the parents are resistant to such measures, the sources of their hesitation are explored and encouragement and support are given to facilitate their implementation of the recommendations. In thus serving as an advocate for the child, the therapist concerns himself to a significant degree with those needs of the

child which lie outside, as well as within, the domain of the psychotherapy.

Components of Treatment

PSYCHOTHERAPY OF THE PSYCHOTIC CHILD

Major Aims

In keeping with the ego psychological conceptualization of childhood psychosis in terms of early adaptive failures due to the severe distortion of personality development and functioning, the overriding purpose of psychotherapy with the psychotic child is to improve adaptation through the corrective resumption of developmental processes. Given, however, that normal developmental progress is dependent upon the facilitative context of healthy object relations, the psychosexual and ego development of the psychotic child, can only be reactivated through the promotion of object relations development. Therefore, by enabling the psychotic child to form more normal object relations, psychotherapy aims to undo the developmental distortions, delays, and arrests of ego functioning which define childhood psychosis.

An ultimate goal of psychotherapy with the psychotic child is the attainment of a degree of separation-individuation which enables the child to meet the adaptational requirements of his school and home environments. The establishment of a correspondingly sufficient degree of object constancy and consolidated self-identity are the

structural achievements that ensure the child's effective, satisfying and stable relations within his total life situation.

The restoration of missing, lagging or distorted ego functions is likewise an ultimate aim of treatment and a prerequisite for the psychotic child's adequate adaptation. Efforts to stimulate the development of impaired ego functions will eventually enhance the overall integration, stability, and evenness of ego functioning and decrease the gap between maturational and developmental achievements. A related purpose of the psychotherapy of the psychotic child is to promote the development of compensatory functioning in areas of organic dysfunction. In this regard, it is worth noting that treatment can facilitate development in organically impaired ego functions and that ego deficits attributed to organicity may diminish in conjunction with the overall advance of ego development and integration. Such improvement warrants diagnostic reassessment of the hypothesized organic contribution to the ego deficits which have been ameliorated through treatment.

Basic Methodological Principles

Broadly formulated, the psychotherapeutic method of treating childhood psychosis consists of recreating the early developmental phases that were missed or unsatisfactorily experienced by the psychotic child and that are essential for normal ego and object relations development. As substitute for the primary, maternal object, the therapist draws the child into a relationship which

enables him to progress through those early phases and which creates more favorable conditions for development than those of the original mother-child partnership. The unfolding of the therapist-patient relationship thus defines the essential medium of the therapeutic process and the primary agent of therapeutic change.

As the child relives the early developmental phases within a corrective relationship, the therapist, as surrogate mother, performs the wide range of functions associated with the maternal role in early development. Enacting that role in ways which facilitate development, the therapist responds faithfully to his patient's multiple developmental needs. Though the proposed treatment approach is derived from psychoanalytic, ego psychological models of development and of childhood psychosis, the therapist's interventions are not subject to the typical role-restrictions of standard, psychoanalytic psychotherapy. For in the course of treatment, he will be called upon to nurture and comfort, regulate and limit, teach and advise the psychotic child. As demonstrated by the case material below, physical contact, for example, routinely off-limits for the psychoanalytically-oriented psychotherapist, is often a critical mode of therapeutic intervention with the psychotic child. Virtually any behavior which facilitates the child's development belongs within the broad spectrum of potential therapeutic interventions, provided that the intervention meets the current developmental needs of the patient.

The case material will also illustrate that the therapist gears his

interventions to the psychotic child's presenting and typically mixed levels of functioning. He adapts his modes of relating to the degree of object relations development manifested by the child. He speaks, acts and interacts on levels appropriate to the child's ego attainments and failures.

Moreover, as the child reaches, loses, and regains new levels of functioning during treatment, the therapist adjusts and readjusts the form and content of the therapeutic relationship accordingly. At every step of the way, he utilizes his current diagnostic view of the child to guide the treatment. Therefore, the continuous process of diagnostic assessment, coupled with the child's changing developmental status, necessitates repeated shifts in the focus and therapeutic strategies of the treatment.

The Course of Psychotherapy

Like development itself, the processes and phenomena which comprise the psychotherapy of the developmental abnormalities of childhood psychosis do not unfold in the orderly sequential fashion and in accord with the discrete stages outlined in ego psychological theory. In treatment, the extreme unevenness of development which defines childhood psychosis and the normal variations in rates of development are manifested in considerable variability in ego and object relations functioning. Therefore, the treatment phenomena, presently discussed, typically evolve in mixed and irregular patterns. Only a broad overview reveals the temporal progression of psychotherapeutic events

outlined by the proposed ego psychological model of the psychotherapy of childhood psychosis.

In the proposed model, the early symbiotic attachment is recreated during the first of two major phases. The length of this phase is determined by the relative predominance of autistic versus symbiotic symptomatology. By contrast, the nature and tasks of the second phase of treatment regularly necessitate prolonged therapeutic work. The traumatic early experiences which thwarted development and are evoked by the child's formation of symbiotic ties to the therapist are relived in the therapeutic relationship. Corrective symbiotic experiences prepare the child to gradually approach and tackle the momentous challenges of separation and individuation.

Recreation of symbiotic attachment. In the course of early development, the psychotic child has failed to establish a normal symbiotic tie to the mother. He has either remained defensively enclosed within the primary autistic orbit, or, having formed a specific attachment, has prolonged an intensely ambivalent symbiotic fusion in order to protect himself from the dangers inherent for him in the tasks of separation-individuation. Both types of early psychotic pathology and the typical mixtures thereof signify that a gratifying symbiosis has not been experienced by the child. The initial task of treatment, therefore, is to promote a symbiotic attachment to the therapist which will guarantee the child those experiences which are prerequisite for passage into the separation-individuation phase.

To facilitate the gradual relinquishing of autistic withdrawal, while simultaneously preventing a reactive intensification of autistic defenses, the therapist attempts to make contact with the child in the least intrusive ways possible. He strives to draw the child's attention away from autistic preoccupations and activities and redirect him toward the external world. To achieve these aims, he exploits every possible opportunity to make his presence felt to the child. This may involve, for example, his recognizing the child's desire for a certain object and handing it to him, his picking up a fallen object for the child, his organizing the materials the child is using, or his removing obstacles which stand in the child's way. To increase the child's awareness of the therapist and attachment to him the therapist offers those specific forms of sensory stimulation which will not precipitate heightened autistic retreat from reality.² If the child exhibits an abnormally low stimulus threshold, the therapist may diminish the sensory input impinging on the child and thus function for him as a protective buffer vis-a-vis the environment. When the child is distressed, the therapist offers soothing comfort, again in a fashion which the child can tolerate. Importantly, however, when the child seeks safety in temporary retreat, the therapist does not interfere or insist on sustained contact.

In response to initially present or evolving symbiotic behaviors, the therapist assiduously avoids pushing the child toward separate

²The therapist may have to employ a trial and error approach in order to discover the nature and degree of sensory stimulation tolerable to the child.

functioning, lest symbiotic and/or secondary autistic defenses intensify. Instead, he allows the child to interact with the human and physical environment at his own pace and follows the child's lead. The therapist permits the child to use him as an extension of the self when the child, for example, utilizes a part of the therapist's body as the instrument for performing a particular goal.

In fulfilling his role in the above manner, the therapist makes available his understanding support and also facilitates the child's usage of it. Over time, the child increasingly permits the therapist to offer help. He gradually accepts shared, but limited, activities. Additionally, the therapist serves as an "auxiliary ego," assuming the critical executive functions which the child has yet to develop. As a result, the psychotic child's often chaotic and confusing behavior becomes more organized and comprehensible.

Progress toward separation-individuation. Aspects of the therapist-patient relationship which dominate the first major phase of psychotherapy continue to characterize the therapy, as the child comfortably enjoys safety and gratification within symbiotic fusion. Gradually, indications of the child's expanding interests appear, signifying his beginning emergence from the symbiotic orbit. Recognizing the child's developmental progress, the therapist gently helps him relinquish the delusion of magical control and omnipotence of symbiotic functioning. He intervenes, for example, in the child's insistence on sameness, often aimed at perpetuating magical control, and encourages a broader repertoire of behaviors.

As the child takes beginning steps toward separation, the therapist allows him to regulate physical distance and closeness. The therapist participates in games aimed at mastery of separation and loss. Further, he encourages the activities which solidify body-image and boundaries as well as the exploratory behaviors which promote finer discrimination of the therapist. Together, these developmental processes lead to the crucial differentiation of self from object.

The therapist continues to carry out those ego functions which the child lacks until increasing ego differentiation and integration permit the child himself to perform them. Given the child's growing investment in external reality and in his own capacities, the therapist introduces activities which promote learning and mastery and thereby supports individuation. Given the child's developmental readiness, the therapist redirects aggressive strivings into the child's increasing mastery skills. In combination with the child's deepening libidinal feelings for the therapist, such therapeutic efforts result in the neutralization sublimation of aggression.

Progressive ego development is marked by the operation of symbolic functions. The therapist stimulates the child's increased verbal communication and self-invented forms of symbolic play. Manifestations of representational thinking and intelligence herald the child's internalization of a stable, mental representation of the therapist as substitute maternal object. The consistent availability, acceptance, and empathic responsiveness of the therapist

has, in large part, made this and all other developmental achievements in psychotherapy possible for the psychotic child.

Motivated to enjoy his new-found capacities, the child exercises them to their fullest degree. Recognizing that the child's sense of autonomy is vulnerable, the therapist accepts negative reactions to imposed restrictions. He similarly tolerates alternating clinging and temper tantrums evoked by the conflicts which accompany the child's heightened awareness of separation.

Each child fashions his own resolutions to the conflicts posed by the developmental tasks of separation-individuation. Each child brings to these tasks a unique set of coping mechanisms, determined by his particular history and biological equipment. The therapist's basic function is ultimately two-fold—to facilitate the child's full realization of formerly thwarted developmental potentials and to facilitate the establishment of compensatory mechanisms which minimize the maladaptive consequences of developmental limitations. In the process, the therapist ideally promotes the internalization of a constant object which enables the child to function autonomously. He likewise promotes the development of individual personality traits and of a stable sense of self which together form the basis of a consolidated identity.

Ongoing therapeutic processes. Certain types of psychotherapeutic interventions characterize the entire course of treatment, lending continuity to the entire psychotherapeutic process. Such interventions, however, are repeatedly accommodated to the psychotic

child's shifting developmental levels and needs and, thus, take on different appearances at the various stages of treatment.

Above all, the therapist's empathic responsiveness, understanding support, and availability typify the all-important "emotional climate" of the psychotherapy of childhood psychosis. Similarly characteristic of the optimal, early mother-child relationship, the therapeutic relationship of affective warmth and stimulation fosters the child's development. The therapist's attunement to the child's needs eventually enables the child himself to recognize his needs and either communicate or directly satisfy them on his own.

Whenever possible, the therapist facilitates the child's performance of self-chosen activities. Considerations based on an understanding of the child's position vis-a-vis conflicts of dependency versus autonomy guide the therapist's facilitative interventions. At times, these may involve helping the child maintain his emotional equilibrium by distracting him from potentially threatening stimuli or by calling his attention to pleasurable ones. In working with the psychotic child who is often vulnerable to regressive temper tantrums, the therapist carefully avoids areas of negativism whenever possible. Accomplishing his intended goals strengthens the child's mastery of reality and his growing sense of self.

The therapist takes advantage of opportunities to gratify the child's needs and wishes, thereby promoting the internalization of the mental representation of the "good object." Restricting and controlling the child's behavior and thus functioning as the "bad

object" is, however, equally critical. Just as ensuring an appropriate balance between gratification and frustration is an essential ingredient of effective early mothering, so too, the dual role of gratifying and frustrating is fundamental to the therapist's effective treatment of the psychotic child. If, for instance, the child is unable to maintain orderliness, the therapist assumes an organizing function. When the child is incapable of controlling destructive rage, the therapist takes whatever measures are necessary to prevent or allay panic and to protect the child, himself, and the physical surrounds from harm. He thus reassures his patient that all will be safe from his destructive rage. Simultaneously, the therapist verbalizes the child's feelings in an effort to comfort and soothe. The difficult challenge of evolving effective yet therapeutic means of controlling diffuse, physical expressions of unmodulated aggression is addressed in the case material in Chapter VI.

By affording a balance of satisfaction and frustration, psychotherapy with the psychotic child ensures the child's transition from the pleasure principle to the reality principle. Moreover, the gradual internalization of drive control and defense is paralleled by increased frustration tolerance, enhanced capacities for delay and anticipation, and, hence, improved adaptation.

Finally, to the extent that adequate orientation toward and comprehension of inner and outer realities is lacking, the therapist labels external events as well as the child's activities, affects, body parts, and objects of interest. He translates the ob-

scure, primary process verbal and behavioral communications of the psychotic child. Yet, to reiterate a crucial point, he does so at the rate dictated by the child's progress from a predominantly autistic or symbiotic level of development and by the child's increasing readiness to separate and individuate. By labelling and translating inner and outer reality, the therapist aims to advance the formation of body image and boundaries which in turn furthers inner-outer discrimination and self-other differentiation. Together, these facilitate the development of the reality functions of the ego.

Particularly in cases of childhood psychosis, such as the one to be presented, characterized by organic impairment of partial or central language functions, the therapist's use of language is most carefully accommodated to the child's level of verbal comprehension. The task of facilitating the development of expressive language is a more central focus of psychotherapy when organic factors contribute to deficits in language and symbolic functions. As will be demonstrated in the case material, the interactive effects of organic and functional factors on the child's ego functioning raise ongoing diagnostic and treatment issues.

Summation. The extent to which the psychotherapy of childhood psychosis can actually foster these developmental achievements has not been conclusively determined. No doubt, it varies with each therapist-child pair. Neither valid prognostic nor outcome measures for the treatment of childhood psychosis have been conclusively established. Given the extreme degree of early developmental damage

reflected in psychotic disorders of childhood, it stands to reason that such developmental deviations will never be fully undone. Despite developmental progress during psychotherapy, the psychotic child is likely, to some extent, to always need a "borrowed" ego in order to maintain an adequate adaptation. Without undergoing treatment, however, he would probably not attain a level of functioning commensurate with that potentiated by way of conscientious psychotherapeutic efforts.

ENVIRONMENTAL ADJUNCTS OF TREATMENT

Parent Counselling

Regular collaborative work between the therapist and parents of the psychotic child is an important constituent of the proposed ego psychological approach to the treatment of childhood psychosis. The amelioration of environmental stress and the promotion of external circumstances conducive to developmental progress are consistent with the ego psychological appreciation for extrinsic etiological factors.

Counselling sessions with the child's parents benefit the child, the parents, and the therapist. In the interest of the child's developmental needs and well-being, the therapist serves at least three major functions in his work with the child's parents. He first aims to educate them about the specific nature and practical implications of their child's psychotic disturbance. He delineates the areas of ego strength and weakness. Their understanding of the child's organic

deficits, in particular, can help objectify their view of the child. This process may alleviate or induce guilt and, in the latter case, the therapist attempts to strengthen the parents' reality testing in response to their feelings of self-blame and responsibility.³

The second function of the therapist is to provide the parents with assistance in meeting the child's special needs. He offers concrete advice and structured guidance in implementing his well-articulated suggestions. For example, regarding desired behavioral change in the child, he helps them delineate clear expectations and consequences. He suggests ways of handling misbehavior, panic, and rage. He encourages satisfactions of the child's emotional hungers, for example, with advice about spending time with the child and responding empathically to him. He counsels them in serving an educational function, in teaching the child basic information he failed to acquire at an appropriate age. Further, the therapist models effective parenting behavior, such as firm limit setting, consistency, caring and responsivity. Over time, the parents internalize the therapist's example by way of their growing identification with him.

Finally, the therapist reinforces the parents' desire and ability to improve their styles of parenting. By helping them feel positively about themselves, they are encouraged to actualize their potential as parents.

Toward helping the parents, the therapist promotes their under-

³ Under certain circumstances, it may be advisable for the therapist to induce guilt in order to motivate the parents to cease, alter or initiate particular behaviors on behalf of the child's welfare.

standing and acceptance of their feelings and behaviors toward the child. He empathizes with the difficulties of raising a psychotic child and shares his own parallel experiences with and reactions to the child. As a result of counselling, the parents' view of the child begins to change and this, in turn, motivates their renewed efforts on the child's behalf. In turn, the development of new attitudes and behaviors toward the child diminishes the guilt and self-doubt of the parents. They experience a greater sense of control and a diminished degree of hopelessness.

The value of parent counselling for the therapist is two-fold. First, the therapist obtains information about the child's current daily functioning, significant experiences and reactions to them. Second, the parents' recall of the child's life history furthers the therapist's insight into the child's development. And third, the therapist's ongoing involvement with the parents familiarizes him with their all-important influence on the child's life. As a result of these factors, the therapist is better able to understand and help both the child and the parents.

Auxiliary Therapies

Depending on his diagnostic assessment, the therapist may recommend supplemental forms of therapy to strengthen ego functions in areas of organic deficit. Speech, music and dance therapy, for example, can facilitate verbal, auditory and motoric development, respectively. They may likewise promote the modulation and control of affective expression and tension discharge. In addition, ameliora-

tive adjuncts to psychotherapy provide the child with opportunities to further develop object relations within a therapeutic setting.

CHAPTER VI: A CLINICAL APPLICATION OF THE PROPOSED
EGO PSYCHOLOGICAL MODEL OF CHILDHOOD PSYCHOSIS

INTRODUCTION

The present chapter represents an attempt to integrate the proposed ego psychological model of childhood psychosis with clinical material from a single treatment case. It aims to demonstrate the usefulness of the model for conceptualizing the complex wealth of data gathered over a prolonged period of diagnostic and psychotherapeutic work.

The psychotic child whose case is discussed below was evaluated and initially treated in the outpatient child psychiatry department of a large municipal teaching hospital. She was seen in psychotherapy for a year prior to the transfer of the case to me and had been evaluated seven months prior to the start of the first treatment. After my first eight months of working with the child, the location of the treatment was switched to the outpatient child psychiatry department of a second major hospital at which I had begun working.

The case history presented includes data which others obtained during the intake evaluation and data which I gathered during the course of my work with the patient's mother. It represents the child's history and development as of the beginning of my contacts with her.

I began treating the patient in twice-a-week psychotherapy sessions. However, in keeping with the mother's wishes which were moti-

vated by a number of personal considerations, the sessions were decreased to once a week at the start of the third year of treatment. I began meeting with the patient's mother and stepfather in bimonthly counselling sessions, but subsequent to the couple's separation, only the mother continued to attend the sessions.

The first of the two treatment summaries presented reviews the patient's progress during the first eight months of treatment, while the second reviews the first six months of the third year of treatment. A complete historical overview of the psychoeducational, psychodiagnostic and psychotherapeutic interventions made thus far during the course of treatment can be found in Appendix A.

INITIAL EVALUATION

Case History

IDENTIFYING INFORMATION

<u>Date:</u>	November 1975	
<u>Patient:</u>	Name:	L. M.
	Age:	5 years 8 months
	Date of Birth:	March 4, 1970
<u>Mother:</u>	Name:	F. M.
	Age:	27 years
	Education:	One semester college
	Occupation:	Forum Coordinator--Neighborhood Youth Diversion Program (serving court-referred school truants and their families)

Stepfather: Name: M. M.
 Age: 33 years
 Education: High school
 Occupation: Shoe salesman

Siblings: None

REASON FOR REFERRAL

Mrs. M. contacted the clinic at the suggestion of staff members at the day care center attended by L. after they told her that L. did not speak as well as other children her age and that her speech difficulties could be related to a neurological dysfunction. Prior to her conversation with the center's staff, Mrs. M. had not viewed L.'s delayed language as a problem. She attributed it to the fact that two languages were spoken at home, that L.'s maternal grandparents, who cared for her until she was 3 years of age, did little to encourage her to talk, that L. had minimal contact with other children prior to entering the day care center, and that L.'s speech had improved steadily while she was attending.

Though Mrs. M. did not spontaneously mention other concerns about L., she had cited the following problems on the initial application:

1. Motor:
 - a. Walking: "Falls a lot; has knock knees."
 - b. Overactivity: "Always."
2. Toilet habits: "Occasionally plays with toilet water."
3. Feeding: "There are days when she will eat everything in front of her and other days when every spoonful has to be coaxed into her mouth."

4. Sleep: "Occasional sleepwalking."
5. Dressing: "Gets frustrated very easily if she can't put on her socks or shoes quickly."
6. Discipline: "Gets very uptight when disciplined; usually screams and throws a tantrum."
 - a. Tantrums: "From about two years old to present."
7. Prolonged separations from parents: "No more than one week, for vacation."
 - a. Reactions: "Usually doesn't mind. First day of day care didn't cry and actually had to be dragged out of the classroom when it was time for her to leave."

PRESENTING PROBLEMS (as evaluated by the first therapist)

L. is a child with developmental delay in all areas. She demonstrates minimal eye contact, a tendency toward perseverative routines, and motoric clumsiness. Her spontaneous speech is confined to one word utterances, and echolalia and delayed echolalia are both evidenced. L. is unable to tolerate even minimal sorts of delay or frustration and responds with either diffuse temper tantrums or selective "tuning out." Her play is impoverished and characteristic of a much younger child.

FAMILY BACKGROUND

Maternal History

Mrs. M.'s parents grew up in Puerto Rico under conditions of extreme poverty. Her father was alcoholic and worked as a cook. Currently, he is the superintendent of their apartment building and also works as a nighttime janitor in another building. He continues to

drink excessively. Mrs. M.'s mother suffers from high blood pressure, an enlarged heart, and legal blindness which resulted from progressive myopia. Mrs. M. likewise has progressive myopia and fears that she too will eventually become blind. Both parents are overweight, think that Mrs. M. and L. are too thin, and constantly encourage them to eat lest they become ill.¹

Mrs. M. is an only child. Two years after she was born, her mother's second pregnancy ended in a spontaneous abortion and the decision was made not to have any more children.

Mrs. M. was raised in a predominantly German-Jewish neighborhood. Her home life was dominated by her parents' arguments, often precipitated by her father's drinking, and she felt caught between them. Food was an issue of prime importance in the family. Her parents would insist that she finish everything on her plate and then demand that she eat another portion. Her mother often hinted at how tired she was and Mrs. M. therefore felt obligated to do many household chores. On occasion, Mrs. M.'s father would punish her for misbehavior by beating her with a belt. Once, when she was 10 or 11 years old, the belt buckle got caught in her earring and ripped her ear. After that incident, the beatings stopped. Despite her father's punishments, Mrs. M. feels "very close" to her father and believes he was jealous when she began dating. When she was 16 years old, he appeared once at her boyfriend's home and slapped her around for being out after her 9:00 P.M.

¹In fact, L. is moderately overweight and Mrs. M. is slightly so.

curfew. Mrs. M. attended a parochial high school in which she was one of three minority students in the academic track.

Prior to marrying Mr. M., Mrs. M. had a series of relationships with unavailable men. She was involved with a married man for over a year before meeting R., the man who is L.'s father. She pursued her relationship with R. though she was aware from the beginning of its minimal chances for enduring. When she told her parents about her pregnancy, Mrs. M.'s father went to R.'s mother and demanded that her son marry Mrs. M. R.'s mother informed Mr. M. of his daughter's previous affair, whereupon he denounced his daughter as a tramp. Mrs. M. felt totally abandoned and had only the emotional support of girlfriends. A reconciliation, however, between her and her parents was effected midway through the pregnancy.

Still living with her parents after L.'s birth, Mrs. M. was depressed and eager to start socializing again. Between her high school graduation and sixth month of pregnancy, she had worked as a secretary for a drug company. When L. was 3 months old, Mrs. M. returned to work and began attending college. She dropped out after the first semester because of her numerous responsibilities and pressures but did continue working.

Mrs. M. did not date during L.'s first year but had a relationship with a married, Puerto Rican graduate student when L. was 19 to 27 months of age. She began dating Mr. M. while this latter relationship was ending (Spring 1972). Then, while dating Mr. M., she simultaneously became involved with another man. She ended her sexual re-

lationship with him when she married Mr. M. (February 1974) but continued having contact with him at work and only ended her involvement with him several months ago.

Several days after Mrs. M. first introduced Mr. M. to her parents, her father was fighting with her mother and ordered Mrs. M. to move out of the house. She and L. moved in with one of her girlfriends until she found her own apartment. She delayed Mr. M.'s moving in with her until two months before the marriage, as she wanted some time alone.

Paternal History

Mr. M. (stepfather) grew up without a father in a large welfare family and was the second of six siblings who had different fathers. He envied his older sibling's privileges and the special status of the baby. A succession of men who were called "uncles" lived in the house and Mr. M. was frequently farmed out to various "aunts." He witnessed brutal fights between the adults in the household and endured punishments such as being whipped with a belt tied to a bedpost. At age 10 he was shining shoes to make money and at age 15 doing factory work. He graduated from high school and developed the ambition of being a painter. He is currently a shoe salesman but paints as a hobby and has had exhibitions of his work.

DEVELOPMENTAL HISTORY

Pregnancy and Birth

Mrs. M.'s pregnancy with L. was unplanned and though Mrs. M.

viewed her relationship with L.'s father as a serious one, he "disappeared" after finding out that Mrs. M. was pregnant. She did not consider having an abortion because she saw herself as capable and old enough to care for a child. Her parents' anger toward her gradually subsided and they were somewhat supportive of her.

Mrs. M. worked through the sixth month of her pregnancy which was without complications. She was awake for the delivery as the anaesthetic had not been effective. L. weighed 7 lbs. 11 oz. at birth and Mrs. M. began breastfeeding her. However, when Mrs. M. developed a fever and L. became jaundiced, breastfeeding was discontinued. Mrs. M. remained in the hospital for six days and L. for seven before returning home to the grandparents' apartment. Mrs. M. has given conflicting reports, stating once that L. had a sickle-cell trait and once that only the possibility of a sickle-cell trait was raised. L. was subsequently taken back to the hospital for blood tests.

Feeding Habits

As an infant, L. was a vigorous eater who seemed quite hungry much of the time. At the suggestion of a girlfriend, Mrs. M. added cereal to L.'s night bottle, early on, which enabled her to sleep through the night. By three months, L. had doubled her birth weight and was switched from formula to skim milk. She responded to what was an abrupt switch by initially fighting her bottles and then gulping them down. Solids were introduced at this time (or possibly at six months) and L. responded well. Mrs. M. and her mother, however, began arguing about the quality of the intake. Also at three months,

Mrs. M. returned to work and her mother assumed all of the feedings except for the night bottle. At six months, a severe feeding disturbance developed at the evening meal and L. began refusing all solids. Deciding that L.'s refusal was due to gas, the grandmother thereafter interrupted the feeding frequently to burp the baby. At about ten months, L. began grabbing for the spoon. Yet because she would spill most of her food, Mrs. M. would take the spoon back and feed her. L. was, however, permitted to mess with the remains of her meal. By one year of age, L. had developed a definite preference for sweets and starchy foods which has continued to be a problem. Food fads have appeared intermittently.

Sleep Habits

Until L. was 15 months old, the family lived in a two bedroom apartment and Mrs. M. shared a bedroom with the baby. L. slept in a carriage until she was three months old and a crib was purchased. When placed in her crib, L. would start to scream and her mother and grandmother would argue bitterly over how to respond. While Mrs. M. felt that L. should be left to cry, the grandmother would go into L.'s room and rock her to sleep. The sleep disturbance abated when Mrs. M. finally prevailed.

L.'s crib was positioned next to Mrs. M.'s bed and, during the night, L. would reach out to touch her. If Mrs. M. was out, the grandmother would lie in Mrs. M.'s bed so that L. would not find it empty. When L. was 15 months old, the sleep disturbance re-emerged and L.'s grandmother gave her one of L.'s mother's nightgowns to help her sleep.

After Mrs. M. moved into her own apartment, L., age $2\frac{1}{2}$, sleep-walked almost nightly for three to four months. A year later and for a period of several months, L. began awakening from nightmares. Whenever L. stayed overnight with her grandparents, her grandmother slept in the same bed with L.

Object Relations

L. is reported to have reached for familiar persons at nine months but no recognition smile was reported. Neither stranger anxiety nor separation anxiety during the first year was reported, yet L. was always within the company of her mother or her grandmother. L. had a pacifier until she was one year old at which time Mrs. M. removed it. At 3, L. began sleeping with her doll when at home and with her teddy bear when napping at the day care center. At age $3\frac{1}{2}$, coinciding with the onset of the night terrors, she developed severe separation anxiety and stranger anxiety. Currently, L. sleeps with several dolls in her bed.

Until age 3, L. was left in the daytime care of her grandparents. Because the grandfather worked nights and slept days, the grandmother wanted to keep L. quiet so that he could sleep. She accomplished this by confining L. for the entire day to a playpen situated in front of a T.V. set. She conversed with her only minimally. In numerous ways, she tried to anticipate L.'s every wish and minimize frustration. She frequently indulged L. with food. At some point, L. began greeting Mrs. M. when she returned from work with outstretched arms, signalling that she wanted to be taken out of the playpen. At age $2\frac{1}{2}$, when Mrs.

M. moved into her own apartment, L. protested when left with a baby sitter. L. was therefore put again in the care of her grandmother during the day. As noted above, L. had no difficulty leaving home to start day care but, rather, had to be forced to leave the center at the end of the day.

Motor Development

Mrs. M. reported the following ages for the achievement of motoric developmental milestones. The discrepancies noted emerged from information she provided on different occasions.

1. Reached for familiar persons: 9 months
2. Sat unsupported: 9 months
3. Stood unsupported: 9 months (1 year?)
4. Walked alone: 11 months (15 months?)

According to the above, L.'s early motor development appears to have been within normal limits. She tended toward a high activity level, but her confinement in the playpen drastically limited her locomotor freedom. As already mentioned, she is knock-kneed, clumsy, and prone to tripping and falling.

Language Development

L. has always been spoken to in both English and Spanish, with English used more. When L. began in day care, she seemed to have been essentially mute. She did not address her mother by name but rather screeched when she wanted her attention. Approximately two months later, she began calling her mother "teacher" but shortly thereafter

would refer to both her mother and teacher as "momma" (or "mommie").

When initially evaluated at the clinic at age 3 years 8 months, L. had just acquired a specific "no." Her language consisted of one word utterances that were not clearly communicative. Pronominal reversal and echolalia were evidenced in her speech.

Toilet Training

Toilet training was initiated at age 2½ (or 2 years 9 months) in order that L. meet the entrance requirements of the day care center. Daytime bladder and bowel control were reportedly accomplished by age 3 and nighttime bladder and bowel control by age 3½, all without apparent difficulty. Some accidents occurred when L. began in day care and again when her mother got married. At some later point, more frequent bed wetting began and continues to the present. L. has attempted to hide her bedtime enuresis from her parents. She uses the words "caca" and "pee-pee" appropriately and understands the word "cooly" to refer to her own genital.

Drive Development

Prior to the time of the evaluation, diffuse temper tantrums occurred in response to any minimal frustration and constituted L.'s primary mode of aggressive expression. On the other hand, she would hug and kiss the teachers at the day care center of whom she was fond and was affectionate with mother and her grandparents as well. When I began seeing L., she appeared to have two moods which could best be described as angry and not angry.

Self-injurious behavior, such as tripping and falling, has occurred during moments of stress. On occasion, L. tries to hit herself. She also picks at her scabs and resists having a bandaid placed on an injury. Notably, there is a history of almost continuous respiratory infections dating from at least her second year of life.

School History

In the spring of 1973, Mrs. M. was advised at a well-baby clinic to enroll L. in a day care program. L. began attending a day care center in May 1973. In May 1974, the center informed Mrs. M. that they could no longer keep L. in the program. It had become very difficult to control her aggressive behavior and, given her large size, the danger of her hurting other children had become very real. Though the center reported some slight overall progress in L.'s capacity to relate (mainly that she had learned the names of some children and could make brief eye contact), they nonetheless identified the following persisting problems: echolalia and limited speech, poor coordination, frequent temper tantrums, perseverative and bizarre behavior (for example, drinking from the toilet), hyperactivity, restlessness and limited attentional capacity.

When the day care center would no longer keep L., L.'s psychotherapist worked hard to find a new placement for her. As a result, L. was accepted to a Board of Education program for special children.

Discussion: Preliminary Diagnostic Considerations

STRUCTURAL ASSESSMENT OF DESCRIPTIVE FINDINGS

The proposed ego psychological model of childhood psychosis argues in favor of interpreting descriptive data as outward manifestations of underlying structural deviations. In accord with this point of view, the behavioral findings reported in the Case History point to considerable disturbances in ego and object relations functioning. These are delineated immediately below and will be further investigated in the subsequent discussions of Treatment Summaries I and II. Psychological testing and screening for a therapeutic nursery program, both done during the initial evaluation procedures (November 1973), yielded similar findings of severe deviations in ego and object relations development. The findings of both procedures are summarized in Appendix B.

Object Relations Development

Behavioral descriptions of L.'s interpersonal functioning during her early development and at the time of the initial diagnostic evaluation both point to deviant object relations. During an entire year at the day care center, L.'s positive relatedness to peers consisted only of her having learned the names of her classmates. Moreover, the inability of adult staff members to control her violent aggressive outbursts toward other children rendered L. an actual threat to their physical safety and was the ultimate cause of L.'s dismissal from the

center. While L. is reported to have hugged and kissed her teachers and family members, these seeming expressions of affection were reported in the absence of other indications of genuine relatedness. As such, they may represent imitative behaviors rather than expressions of true affective integration and may thus point to a "pseudo-social" adaptation. L.'s inability to maintain eye contact is a further reflection of faulty object relations. Nonetheless, the fact that L. did come to know the names of her peers and does make gestures towards other people bespeaks interest in and a certain, though limited, degree of involvement with others. Consistent with the facts of her earlier object relations development, L.'s partial orientation toward people argues against a primary (classical) autistic syndrome.

The reported absence of the recognition smile and of stranger anxiety and separation anxiety during L.'s first year of life are the earliest indications of deviant object relations. The grossly delayed and exaggerated appearance in her fourth year of life of stranger and separation anxiety is of further psychopathological significance. Of equal diagnostic significance is the reported episode of L.'s adamant opposition to accompanying Mrs. M. home at the end of her first day at the day care center. The necessity for dragging L. out of the building contrasts sharply with the typical 3 year old's delight over reunion with the mother.

Given that L. is not reported to have demonstrated primary autistic features in early infancy and is reported to have reached for familiar persons, her fleeting eye contact, selective "tuning out," and

minimal relatedness probably represent secondary autistic features. In addition, the fact that L. would reach out to touch her mother through the bars of her crib and would greet her mother with outstretched arms clearly reflects L.'s early concern with her mother's whereabouts and eagerness for contact with her. Furthermore, the onset of temper tantrums at age 2, a frequent indication of symbiotic pathology, also argues against a diagnosis of primary autism.

Ego Development

Analyzed in terms of their structural implications, behavioral descriptions of L.'s functioning both at home and at school point to severe ego deficits. Her inability to tolerate even minimal frustration or delay is quite evident. In the absence of adequate mechanisms of defense and drive control, L. resorts to selective "tuning out" or to diffuse motoric discharge. Her uncontrolled temper tantrums, on one hand, and kissing and hugging, on the other, exemplify the extremes of which she is capable. Her poor sense of reality is manifested in grossly inappropriate behavior, such as her drinking from the toilet.

L.'s limited and atypical speech, consisting only of one-word utterances, echolalia, and delayed echolalia, represents the most severe impairment of her autonomous ego functioning. Her use of the word "momma" to refer to both her mother and teacher may reflect faulty object-discrimination as well as language deficits. L.'s deviant symbolic functioning is also manifested in her impoverished and developmentally immature play.

L.'s poor gross motor coordination, evidenced in clumsiness and a tendency to fall, demonstrates another deviant autonomous ego function. As discussed below, her faulty motoric functioning raises considerable confusion regarding the etiological components of her widespread ego deviation.

To more fully understand the nature of L.'s ego disorganization, it is important to note the disruptive effect of the disparity between L.'s steady physical maturation and her arrested ego development. As reported in the findings of a neurological and general physical exam performed at age 4 years 8 months, L. exceeded the 97th percentile in height and weight (see Appendix B). In combination with the increasing strength of inner drive stimulation and the absence of internal controls, L.'s large size and comparable physical strength intensified the actual physical dangers she presented to others and, no doubt, also intensified her own fears of the destructive power of her aggression. Given the above coincidence of maturational and developmental factors, one can safely assume that the panic precipitated by L.'s uncontrolled temper tantrums could reach extreme proportions.

Alongside disturbances in ego functioning, L. presents several noteworthy ego strengths. Her ability to learn the names of the other children at the day care center demonstrates not only the intactness of her auditory, verbal memory but also her ability to utilize it in the service of at least some semblance of social adaptation. Similarly, L.'s affectionate gestures toward adults in her environment probably enables her to receive some affection and approval in return.

Lastly, the fact that L. establishes at least some form of connection to those around her is prognostically positive in the context of the overall severity of her ego and object relations development.

ETIOLOGICAL HYPOTHESES

The proposed ego psychological model emphasizes the continuous interactional effects of internal and external variables on personality development. In order to account for the enormous complexity and variability of psychotic disturbances in children, it permits for an infinite range of multiply-determined etiologies. Yet the case at hand demonstrates the frequently encountered difficulties in arriving at a conclusive etiological grasp of the clinical data amassed.

Organic Factors

Among her numerous ego deficits, L.'s immediately observable language difficulties constitute the strongest evidence for the presence of a neurological dysfunction. The clinician who is familiar with the language disturbances characteristic of psychotic children recognizes that L.'s speech is not only limited and immature but also exhibits those atypicalities commonly found in childhood psychosis. Unless one believes that all language impairments in psychotic children are organically-based, one is confronted with the difficult diagnostic problem of a language disorder with a possible organic and/or functional etiology.

L.'s gross motor coordination presents a similarly difficult diagnostic differential. Although early, developmental motor milestones

were reportedly reached within normal limits, and although a neurological exam yielded no positive evidence for a gross neurological deficit, "soft signs" of awkward and clumsy gross motor coordination have been repeatedly observed. (In addition to findings of gross motor difficulties reported in the Case History, Appendix B also cites positive evidence from three administrations of psychological tests.)

In connection with the hypothesis of an etiologically significant neurological dysfunction, the reported postnatal complications (i.e., Mrs. M.'s fever and L.'s jaundice which led to the cessation of breastfeeding) and the possibility of a sickle-cell trait might constitute supportive evidence for a constitutional vulnerability.

Even if additional and more conclusive findings existed to substantiate the hypothesis of an organic deficit, it would still not be justified to attribute L.'s extreme ego and object relations deviance solely to organic causation. For, as previously argued, innumerable children with substantial organic impairments, including language disorders, do not develop the degree of ego vulnerability, variability, arrest and distortion already strongly suggested by L.'s Case History alone.

Environmental Influences

The evidence cited above for early object relations pathology is consistent with the premise of the proposed ego psychological model which postulates that the distortion or absence of a gratifying symbiosis is the central psychogenic factor in childhood psychosis. The missed early experiences with the primary maternal object preclude

the attainment of self-object differentiation, object constancy and consolidated self-identity.

Descriptions of L.'s early maternal caretaking, presented in the Case History, offer ample data to support the relevance of the above formulation to the clinical material at hand. The circumstances surrounding Mrs. M.'s pregnancy attest to her lack of planning for the realities of caring for an infant. Not only had she not ensured that she would be able to provide an intact home life for her child but she herself was not prepared to assume the emotional responsibilities entailed. Her personal needs motivated her subsequent rapid reentry into her work and social spheres. Mrs. M. was more capable of meeting her financial responsibilities than she was of assuming the all-important, affective roles of motherhood. Consequently, from age 3 months to 3 years, during the developmental period which theoretically spans the entire separation-individuation phase, L. was predominantly cared for by her maternal grandmother who had neither the physical nor emotional stamina required for raising an infant. Moreover, L.'s daytime home environment was characterized by marital conflict, violence associated with alcoholism, and dominant oral preoccupations and addictions.

Most significantly, L. became the object of pervasive, displaced conflict between Mrs. M. and her mother as well as the recipient of their conflicting styles of maternal caretaking. Her feeding and sleeping disturbances attest to the probable degree of tension surrounding these two major sources of gratification and comfort in infancy. It stands to reason that inconsistent patterns of mothering would pre-

clude L.'s development of stable and confident expectations. The fact that she doubled her birth rate within three months, was switched abruptly from formula to skim milk, was frequently interrupted during feeding for burping, had her pacifier removed at age one, and was not introduced to toilet training until it was required by external circumstances all bespeak considerable failure to understand and meet the most standard needs of an infant. Given the possibility of an organic dysfunction and the special needs therein implied, the history of L.'s early maternal caretaking might assume added etiological significance.

The most striking evidence for the gross neglect of L.'s developmental needs is her having been confined to a playpen and entertained by a television for prolonged periods of time, possibly even for entire days. This historical fact alone enormously confounds the etiological uncertainty already noted. At this point in L.'s development, it was not possible to ascertain the relative contributions of an hypothesized constitutional factor and of the extreme environmental deprivation.

Nonetheless, it can be said that L. lacked the consistent availability and empathy of the "good" maternal object, a sine qua non for the normal progression of ego and object relations development. In this context, her impaired language functions and possible motoric disturbance can readily be seen, at least in part, as a function of the lack of stimulation and opportunity necessary for attaining and practicing autonomous ego functions. Extreme frustration coupled with oral indulgence undoubtedly complicated the inherently difficult

transition from the pleasure principle to the reality principle and the related development of the capacity to tolerate delay and frustration.

It stands to reason that L. could not approach the tasks and challenges of the separation-individuation phase given that she had not been provided with a consistent, available, and stable "good" object. She could not progress beyond the symbiotic orbit without first having experienced its safety and comfort. For only within a warm and gratifying "emotional climate" can a toddler begin to differentiate self from object and to internalize the stable, unified maternal image which ultimately permits him to separate. Further, without taking the crucial physical and psychological steps toward separation, no sense of being a separate, autonomous and integrated self could begin to crystallize. In L.'s case, extreme physical restriction precluded her practice of locomotor functions and, thus, of physical separation. Finally, without the consistent responsivity of the mother as "auxiliary ego," the beginning structuralization of the ego which permits for independent functioning could not occur.

Just as it is not justified to assume that an organic disorder alone caused L.'s profound ego and object relations disturbance, neither is it justified to assume that the negative aspects of her early environment alone distorted her development. Given the possibility of an underlying neurological impairment of language functions, one must consider the ways in which such a deficit could have exacerbated the negative external circumstances and adversely interacted

with them to create the developmental deviations L. presents. This critical demonstration of the interactional effects of internal and external etiological factors will be presented in a later discussion of diagnostic issues.

SUMMATION

The preceding discussion of the Case History demonstrates several salient principles of the proposed ego psychological model of childhood psychosis. It exemplifies the use of reported and observed descriptive data as points of departure for a structural assessment of personality development. It does not assign a single diagnostic label on the basis of several or more descriptive features but rather attempts to integrate the structural implications of the data collected into a coherent picture of ego and object relations functioning. Psychopathology is assessed in terms of the deviations and distortions of developmental processes from a theoretical model of normal ego and object relations development.

The etiological considerations articulated above demonstrate the complexity of the ongoing interactions between internal and external influences on development. As evidenced in the present case material, the severe and varied psychopathological manifestations of childhood psychosis often pose complex etiological questions which cannot be answered definitively subsequent only to brief diagnostic evaluation.

The following Treatment Summaries and discussions thereof demonstrates that treatment can and must proceed despite unresolved diag-

nostic dilemmas. The case material and discussions exemplify how treatment can contribute illuminative diagnostic data and promote sounder diagnostic formulation, provided that diagnostic assessment has been defined as an ongoing, open-ended process.

EARLY DEVELOPMENTS IN TREATMENT

Treatment Summary I

Date: June 1976

Dates of Session: 11/5/75 to 6/16/76

I began seeing L. in twice-a-week psychotherapy sessions in November 1975, four months after the departure of her former therapist. During the intervening months, L. had started weekly music therapy sessions which continued throughout the year. Treatment with L. was aided by the regularity with which her mother brought her to sessions and with which both her parents attended twice-a-month sessions with me.

DEVELOPMENTS IN THE DIFFERENTIATION AND MODULATION OF DRIVE EXPRESSION

Early in treatment L. expressed both aggressive and libidinal feelings in highly undifferentiated and unmodulated ways. Beginning sessions were marked by intense temper tantrums, some of which were triggered by frustration (for example, by my telling her she could not paint on the toys), while others lacked any apparent antecedent.

Under the impact of a primitive welling up of rage, L. would lose

all control. During tantrums, she cried violently, shrieked, thrashed about the room, threw objects to the floor and hit, bit and kicked me. Wanting to permit L. to express her rage but also to protect her from the terror of her real and fantasied destructiveness, I would hold her on my lap during her outbursts, tightly restraining her limbs. Though she continued to cry and struggle to break loose from my hold, I insisted that she and I remain together in the room for the full session, in order to demonstrate that her aggression could be contained without destroying either of us or the objects in the room.

In time, L. began internalizing the controls she had initially borrowed from me and gradually showed increased frustration tolerance. For example, during a session at the end of the year, L. did not become upset when there was no more of her favorite play material available that day. The unpredictability of her tantrums also diminished. Diffuse tantrums were replaced by outbursts which occurred toward the end of the session and were more clearly related to separation difficulties. By the end of the year, sessions ended without any tantrums at all. Yet, at the conclusion of sessions, L. would sometimes scream as she ran toward her mother or would throw herself on the floor once she reached the waiting room where her mother sat. Both behaviors still constituted a protest against the imminent separation.

Expression of libidinal drives was equally unmodulated and diffuse. L. frequently kissed me abruptly and for no apparent reason. I did not sense in her displays of "affection" a specific feeling toward me as a person. Her gestures lacked warmth, focus and relatedness.

A total nondifferentiation of drives was strikingly evident when affectionate gestures became aggressive within seconds. Once, for example, L. and I stood face-to-face as I buttoned her work shirt. Initially she stroked my hair, forehead and cheeks gently, yet suddenly she was vigorously rubbing, pinching and hitting my face. By the end of the year, L.'s nondifferentiation of drives and lability of affect had virtually disappeared. L. no longer kissed me, but would take my hand or put her arm around me in a "chummy" way, hoping to win my approval and pleasure. Though L. still did not seem fully related at these moments, libidinal and aggressive drives had become increasingly differentiated and their expression more appropriate, controlled and meaningful. When I informed L. at the end of the year that we would not be terminating but that we would continue sessions at my new office, she took a piece of paper and with her Playdoh formed the letters "l-o-v-e." In this clear, direct response to my announcement, L. relayed a genuine and specific message to me. In the course of our work, I had begun to become a more real and specific person for her.

DEVELOPMENTS IN OBJECT RELATIONS

Relatedness

During the early months of treatment, L. often seemed out of touch, permitting only a minimum of eye contact, and only at the beginning of sessions. She appeared to be in a kind of autistic orbit as she sat, playing by herself, either saying nothing or inaudibly

mumbling the well-memorized words of a jingle or television commercial. At such moments, I felt alone in her presence, for she seemed unaware of mine.

A capacity for improved relatedness emerged in close connection with the progressive organization of drives. At the end of a month together, I introduced a plastic tray into the playroom insisting that L. restrict her water play and messing to the tray. Though she shrieked and bit me when I imposed this limit, she announced during our very next session, "You're my friend."² After three months of treatment, L. articulated her beginning feelings of affection. "I like you," she said. "I'm your friend. You're nice." It was at this point that L. first mentioned her former therapist. Though I had in early sessions commented on L.'s probable anger and sadness over losing this therapist, L. had remained silent. Only when she began feeling safe with me could she allow herself to mention the loss. In the following session, L. remarked, "I missed you."

Self-Object Differentiation

In yet the next session, L. began showing an increased sense of differentiation from me. Typically, we began each session with the "ritual" of putting on work shirts. On this day, however, L. turned to me and said, "You don't have to put your shirt on." She thereby recognized and sanctioned our separateness. Earlier in

²Given the atypical quality of L.'s spoken language, references to her verbalizations, in Treatment Summaries I and II consist of approximations of her words rather than direct quotes.

treatment, when L. kissed me, she automatically expected a kiss in return. Now, however, she would put her cheek up close to mine, waiting to see if I would kiss it. It seemed as though she had become aware of my separate existence and of my power to give or withhold.

Reciprocity

Reciprocity and collaboration became possible only after L. achieved the beginnings of self-other differentiation. In the first session of March, L. spontaneously started buttoning my shirt as I buttoned hers. Two weeks later, she articulated the sharing by suggesting, "button it together." L. could by now participate in collaborative activities such as cleaning up together. Within several weeks, she began structuring the roles, assigning us each a part-- "you carry the scissors. I'll carry the tray."

L.'s shift from solitary to parallel play was a major turning point in treatment. For many months, she had played with her Playdoh alone as I observed. One day at the end of March, she unexpectedly broke her chunk of Playdoh into two pieces, offering me half and suggesting that I make "pretzels" along with her. Later, when she finished decorating her pretzels with watercolors, she extended the paints to me, instructing me to do likewise. She now included me in her activities, but, importantly, insisted that I participate in the specific ways she prescribed and do exactly as she did. In this way, she retained control over the situation and perpetuated the ritualistic quality of her play. Henceforth, L.

sometimes introduced activities by inviting me to join in. Poignantly expressive of her newly-attained capacities for sharing and closeness was L.'s request, one day in May, to share my chair. Formerly, she might have shoved her way onto the chair without regard for my sitting there. Now, however, she asked, "Can we sit together?"

Object Loss and Object Constancy

The theme of "hiding and finding" was prominent from the outset of L.'s treatment, initially through her hiding and finding of objects. She would fill the toy thermos with water and tuck it safely away in the plastic lunchbox. She never failed to return to it later to find it securely fastened in its place. Similarly, she would carefully wrap pieces of Playdoh in paper towels which she would repeatedly fold closed and then open.

By the end of February, issues of object loss and constancy were more directly expressed in repeated rounds of "hide and seek." Several times within each session, L. would initiate the game, leading me by the hand to the bathroom, where she chose to play it. She would hide behind a curtain as I searched other parts of the room asking aloud, "Where's L." I miss L." With tremendous delight, she would reappear exclaiming, "Here I am!" and happily mold into my embrace. Throughout countless repetitions of this game, L. appeared genuinely pleased at each reunion. Only toward the very end of the year did the frequency of the game and the intensity of her involvement in it diminish.

L.'s need to practice finding the lost object or to relive the experience of being found bespeaks a deficient sense of object constancy. Similarly, her enormous difficulty with separation suggests that leaving the "good object" is fraught for L. with the danger of losing it. At moments of separation, L. would stage a temper tantrum, as though I was transformed at that instant from the "good," giving, available object, to the "bad," withholding, unattainable one. To avoid saying goodbye, L. would most often dash out of the room and run down the hall screaming, "Help! Help!" By mid-April, L. was able to tolerate the separation--i.e., to stay with me until the end of the session and say, "goodbye." Towards the end of the year, L.'s parents reported that she would have temper tantrums at the moment her mother was preparing to leave the house. L.'s ability to anticipate the separation from her mother contrasted sharply with her earlier mode of denial, when she remained indifferent to her mother's coming and goings, or at a later stage in her development, threw the tantrum only after her mother had left. In June, Mrs. M. reported an incident which indicated that I continued to exist mentally for L. during the intervals between sessions. One day, as L. and her mother sat in the waiting room before a session, L. feared I might not show up but was able to visualize my being elsewhere. "Maybe Ms. Greenberg is in her new office," she said to her mother.

DEVELOPMENTS IN AUTONOMOUS EGO FUNCTIONS

L.'s functioning reflects extreme unevenness in ego development. At one end of the spectrum are L.'s highly developed memory skills. Other ego functions, however, have been severely impaired, partially through deviations in object relations development and through the disruption caused by excessive drive stimulation. Certain functions improved in treatment by way of improved object relations and the attendant increase in drive control.

Motoric Functioning

Early in treatment L. was clumsy and awkward and even appeared as though she might have a neurologically-based motoric problem. She frequently tripped, bumped into objects, knocked them over, and spilled liquids. Over time, her clumsiness seemed to represent a diffuse discharge of aggression which diminished considerably with improved modulation of affect. Her movements appeared less chaotic as she competently performed tasks which required fine visual-motor coordination, such as pouring liquid from a wide container into a narrow one.

Attention and Concentration

In early sessions, L. wandered aimlessly around the room, searching for an activity which she would quickly replace with another one. In time, L. began to attend and invest herself in play for longer periods of time until, by the end of the year, she would spend the major part of the session on one activity, such as Playdoh.

Anticipation

Our talking together about events before they happen facilitated the growth of L.'s capacity to anticipate and plan. For example, as we entered the bathroom one time, she verbally invited me to play hide and seek. Several sessions later, as we approached the door of the bathroom, she proposed that we play. And soon after that, even before we left the playroom to go to the bathroom, she would suggest that we play. L.'s exclusive orientation to the present was beginning to extend to the past and future as well. Slowly, she was beginning to bridge her fragmented experiences with mental representations of events that had already taken place or that she anticipated would occur.

Symbolic Functioning

Play. L.'s play has shown advance in the level of symbolic functioning, though this remains a seriously impaired area of ego development. During her play in the very beginning of treatment, L. made totally inappropriate use of materials. She painted with baby lotion on the mirror or on paper towels, rather than use paint and paper. Most often, she smeared and messed with excessive amounts of the lotion, water and liquid detergent. One day, I used the baby lotion as a medium of contact by suggesting that we rub our hands together and "make nice" by smoothing the lotion on each other's skin. Although L. eventually began to use art materials appropriately, she rarely drew more than shapes or washed colors, often destroying her productions within seconds of having finished them. Playdoh became

her favorite activity as it provided for expression of both oral and anal themes. She frequently "made" foods or feces. The latter she would drop into water, laughing with excitement at the familiar "plop-plop" sounds. Very brief and sporadic instances of symbolic play began emerging toward the middle of these first eight months in treatment. L. rarely did more, however, than empty the dollhouse and replace the furniture and dolls within while saying nothing. Only once, in the beginning of April, did she use hand puppets enacting a mother hitting a child.

Language. Most dramatic were the changes in the quality and quantity of L.'s verbalizations. In November, she spoke very little in sessions. What she did say had a pseudo or borrowed quality. It seemed that L. had a memorized repertoire of commonly used phrases from which she could draw and use on occasion. They usually bore an obvious connection to the situation at hand. For example, the first time I handed L. the smock her mother had given me for L. to wear in session, L. exclaimed in an exaggerated fashion, "Oh, thank you. It's so beautiful. I just love it!" Her words sounded borrowed, inappropriate, and affectively unintegrated. Comments she made, such as, "I'm so proud of you," or "If you don't stop that I'm gonna smack you," reflected her adopting and rigidly employing borrowed "chunks" of language which she herself lacked.

Imitative, stereotyped, and awkward verbalizations continued but decreased during the year. They were complemented by a rapid increase in activities which L. performed while sometimes carrying

on a brief conversational exchange. Yet her articulation and intonation remained peculiar and some autistic uses of language persisted, as when L. whispered memorized television jingles repetitively to herself.

SUMMATION

L.'s ego functioning is fragmented and grossly uneven. Islands of uncontaminated functioning contrast sharply with areas that have been thoroughly invaded by failures in the development of self-object differentiation and drive differentiation and modulation. As a further illustration, one need only compare L.'s ability to read since age 3 with her arrested level of expressive language skills. The adopted "as if" quality of her affective expression and language cause one to question how integrated these functions can ever become. One senses that L.'s current achievement may not be stable and that appearances of higher levels of functioning will be interspersed with regressions to more primitive modes. Continued therapy will be critical in order to stabilize the gains she has made and hopefully promote further development. One cannot predict the ultimate outcome of long-term psychotherapy nor, in L.'s case, determine at the outset the possible inherent limitations or ceiling on her level of development that could result from severe developmental damage and/or a neurological dysfunction. Nonetheless, L.'s capacity for utilizing treatment provides a strong argument with continuing in spite of these uncertainties.

Discussion: The Resumption of
Developmental Processes

FORMULATION OF TREATMENT APPROACH

Stressing the integral relation between diagnosis and treatment, the proposed ego psychological model of childhood psychosis advocates the formulation of a general treatment approach in accord with initial diagnostic impressions. It has been demonstrated that, in L.'s case, deviant processes in early object relations promoted atypical developmental patterns which interfered with the expected emergence and harmony of ego functions. Developmental arrest, distortion and failure in various personality sectors led to considerable disruption of ego functioning.

Accordingly, the essential purpose of treatment with L. was to undo developmental deviations through the stimulation and resumption of object relations development. A fundamental principle of normal development which constitutes the essential foundation of the proposed model and thus of L.'s treatment is that the differentiation and integration of ego functions rest on the satisfactory unfolding of early object relations. Therefore, the recreation of the early mother-child relationship in treatment permits for the reactivation of object relations development and, thereby, for the activation of corrective ego development. Moreover, diagnostic assessment directs therapeutic interventions toward areas of greater to lesser ego impairment.

THERAPIST AS SUBSTITUTE MATERNAL OBJECT

In keeping with the above treatment approach, my major and on-going therapeutic task with L. was to function as maternal substitute in order to 1) create optimal conditions for the resumption of severely arrested object relations development, and 2) promote development of arrested or distorted ego functions through the medium of the recreated "mother-child" relationship. These two aims were continuously interrelated in that ego functions progressed in conjunction with advances in object relations development. Further, the consistent availability and responsiveness of a "good object" fostered the beginning internalization of a stable maternal-object representation which, in turn, supported emergent ego functions.

The role of maternal substitute, adopted to address the twofold task of promoting object relations and ego functioning, was defined in accord with the diagnostic findings in these two, all-important spheres of development. Treatment Summary I reviewed evidence of progress made in both sectors. The specific therapeutic functions which defined the role of substitute maternal object and facilitated the resumption of developmental processes are set forth in the following sections of this discussion.

PROMOTION OF OBJECT RELATIONS DEVELOPMENT

The initial diagnostic assessment strongly suggested that L. had not satisfactorily experienced a gratifying and secure symbiotic relationship and that her object relations development had consequently

been arrested at the part-object stage. Her self-absorption, inattention to the human object world, emotional detachment, withdrawal, minimal eye contact, solitary play, and private mumbling were all observed during the beginning of treatment and confirmed earlier diagnostic impressions of secondary autistic features. Additionally, the subsequent appearance in treatment of intense ambivalence, reflected in alternations between "pseudo-affection" and rage reactions, and of imitative behavior, which replaced genuine identifications, provided further evidence of developmental arrest at the symbiotic stage of early object relations.

Preparatory Steps Towards Symbiotic Attachment

Before I could recreate with L. the satisfying symbiotic experiences which she had missed early on and which would ultimately permit separation-individuation, a prior task was to draw her out of her self-enclosed, autistic world. Lest I intensify the autistic defenses I sought to undo, I had to promote contact in ways which would not threaten the psychological safety whose protection her autistic adaptation aimed to ensure. I was therefore careful to respect and accept her autistic behaviors and initially strove only to increase her awareness of my presence.

Toward this end, I spent the early sessions sitting near her and observing her solitary activity. I watched for opportunities to make my presence felt by way of making myself useful to her, for example, by recognizing a need and meeting it. When materials were beyond her

reach, I handed them to her. When she spilled liquids, I cleaned them up. I listened to her barely audible, incomprehensible mumbling without requesting that she explain it to me. As I watched her, I commented from time to time on her play, simply noting her behavior aloud. Occasionally, she cast a fleeting glance in my direction.

By not invading her autistic defenses, I met L. on her given level of object relations development. After guarding for some time against encroaching upon the protective barriers she had built around her, I began to sense that she might be capable of tolerating a small degree of increased contact. Having observed her messing with baby lotion, I chose the lotion as a medium for sensory contact. She did accept my suggestion to "make nice," allowing me to rub the smooth lotion on her hand and silently agreeing to rub it on mine.

This event constituted an important turning point in treatment. It confirmed my sense of L.'s readiness for closer contact and allowed me to gradually increase the degree to which I spoke to her, touched her, facilitated her play, and drew her attention toward aspects of the external environment. By way of her increased contact with me, L. slowly outgrew her autistic absorption and showed an outward shift in the focus of her interests.

Reliving Symbiotic Unity

Beyond the relinquishment of autistic defenses, the critical factor in the promotion of a symbiotic attachment to the therapist is the therapist's continued provision of an optimal "emotional climate." In contrast to her unresponsiveness to me at the start of

treatment, L. now demonstrated that her emotional equilibrium and well-being was directly dependent on my affective warmth, sensitive attunement to her needs, and moment-to-moment responsivity. She found pleasure in physical contact--in being hugged, held, and rocked. On occasion, she used my hand as a means for reaching an object she wanted. She permitted me to become increasingly helpful and, thus, exhibited her growing attachment and dependence. By providing maximum gratification and minimizing frustration whenever possible, I continued to provide L. with a stable "good object."

L. began initiating behaviors reflective of symbiotic strivings. It was important to her that she and I be alike. When she made "pretzels," she indicated that I should do likewise. After she painted her "pretzels," she gave me the brush for me to paint mine. She enjoyed out sitting together on one chair. She had come to recognize my existence but dictated that my behavior conform to her wishes.. Thus, I existed only as a part of her and not as a separate person. She demonstrated her sense of magical omnipotent control, for example, when she put her cheek to my face and expected a kiss in return.

L.'s attempts to run out of the office before the end of the session reflected intense separation anxiety and confirmed my impression of her symbiotic attachment to me. When I prevented her from leaving, rage in the form of physical aggression reached uncontrolled proportions. I at once became the "bad object" of separation as well as the "bad object" who frustrated her omnipotent

control. Forced on repeated occasions to physically restrain her, I continually demonstrated to L. that her aggression would not harm or destroy either of us. Either when she calmed down sufficiently to permit me to rock and comfort her or when she returned for her next session, she rediscovered the "good object" and eventually came to recognize its continued existence.

In connection with L.'s advance to the symbiotic phase of object relations, several additional points are worth noting. As is the case with all new developmental attainments, progress is not linear but rather comprised of alternating progressive and regressive steps which, on balance, lead to developmental advance. During temporary regressions, I permitted L. to retreat to the safety afforded her by autistic withdrawal. Even at later stages of her object relations development in treatment, such regressions occurred. My acceptance of them permitted the precipitating anxiety to abate and allowed L. to reestablish former levels of functioning.³

Beginning Processes of Separation-Individuation

As with advances in object relations which occurred earlier in treatment, initial indications of L.'s movement beyond the symbiotic orbit and involvement in the tasks of separation-individuation resulted from a twofold process. First, L. herself initiated activities reflective of progress toward increasing self-object differen-

³A specific instance of regressive, autistic withdrawal into solitary play following an extended break in treatment is reported in Treatment Summary II.

tiation, separateness and autonomy. For example, though not reported in the preceding treatment summary, she would slowly and attentively explore my facial features, glasses and jewelry visually and tactilely. No longer insisting on sameness, she began assigning us collaborative rather than parallel roles. She created games aimed at mastery of separation and fears of object loss.

Additionally, however, indications of L.'s readiness to progress beyond symbiotic fusion prompted my therapeutic interventions aimed at facilitating her transition into the separation-individuation phase of object relations development. In contrast to my earlier comments about our likenesses, I began calling attention to differences between us. Further, I did not continue to strictly adhere to L.'s prescriptions for my behavior but at times challenged her sense of magical omnipotence and control. I would occasionally intervene in her ritualized maintenance of sameness, in the hope of encouraging a broader repertoire of activities and thus expand her ego functioning. Similarly, I slowly began to challenge the general rigidity of her behavioral patterns in order to promote greater adaptive flexibility. However, I undertook these efforts to stimulate developmental progress with utmost caution and regard for L.'s developmental readiness for them, lest I precipitate a regressive retreat.

Throughout L.'s struggles to master separation conflicts, I tolerated her alternating expressions of affection toward the "good object" of gratifying symbiotic union and rage toward the "bad ob-

ject" of frustrating separation. Early in treatment, I sought to decrease physical distance between us, whenever possible, in order to foster contact. At this point, however, I relegated control over that distance to L., so that she might practice separation and return for "emotional refueling" in accord with her own emotional needs.

Evidence suggestive of L.'s attainment of some degree of self-object differentiation, object constancy, and a continuous sense of self was reported in Treatment Summary I. Currently, four years later in treatment,⁴ ample evidence exists for the consolidation of these achievements in object relations development. After an angry flare-up, L. will often briefly withdraw from me but quickly reestablish contact in order to effect a reconciliation. This demonstration of her ability to retain a positive connection to me while she is angry reflects the probable fusion of formerly split part-object representations. Moreover, the fact that L. has sent me letters during breaks in the treatment attests even more conclusively to the existence of a stable, unified object representation. Given her limited expressive language capacities which are discussed in Treatment Summary II, it is difficult to ascertain L.'s sense of self-identity. Her allusions, however, to past events and anticipations of future ones do bespeak a continuous sense of self. Lastly, the enhanced stability of her ego functioning, the absence of extreme panic reactions, and the interest she demonstrates in her ap-

⁴See Appendix C for current identifying information.

pearance suggest that a consolidation of ego boundaries has occurred.

FACILITATING CORRECTIVE EGO DEVELOPMENT

Within the limits imposed by possible organic factors, advances in autonomous ego functioning are often naturally stimulated in treatment by the overall resumption of developmental processes. For example, L.'s increased, though limited, capacity for symbolic play emerged with minimal therapeutic intervention aimed toward that end. Similarly, her enhanced motor coordination emerged in conjunction with increased modulation and control of diffuse aggressive discharge. In Treatment Summary II and in the discussion entitled Further Diagnostic Considerations, additional attention will be paid to developments in L.'s autonomous ego functioning during treatment.

Progress in the development of certain central, nonautonomous ego functions, however, requires focused therapeutic attention and effort. Other nonautonomous ego functions advance as a function of intrasystemic, interactive effects.

As demonstrated in Treatment Summary I, L.'s total inability to modulate or control violent expressions of rage caused serious disruption of ego functioning. The initial absence of drive modulation and control undoubtedly resulted partly from the arrest of object relations development which interfered with processes of identification and internalization. Therefore, a major task in the early stages of treatment was to provide L. with the external controls which she later internalized as a function of advances in object

relations development. Lending her the controls she lacked constituted an important function which I fulfilled in serving as "auxiliary ego."

Affording L. an appropriate balance of gratifying and frustrating experiences helped promote the related capacity to tolerate frustration and delay gratification and facilitated her transition from the pleasure to the reality principle. My ensuring adequate experiences of both frustration and gratification offers a clear demonstration of the ways in which creating treatment conditions more optimal for development than those provided in the original mother-child relationship can effect corrective development of ego disturbances. L.'s reality functions were likewise promoted in treatment by my continuous labelling of external stimuli and of L.'s gestures, actions and affects.

SUMMATION

In sum, the major twofold aim of treatment, the promotion of ego and object relations development, dominates and defines the entire therapeutic process. Because he has offered himself as substitute maternal object and fostered a symbiotic attachment in the child, every interaction in which the therapist engages the child constitutes a small part of his total effect on the child's personality development. The child's relationship with the therapist, initially an auxiliary ego and symbiotic partner and later a separate person and internalized object, constitutes the essential stimulus for de-

velopmental progress and change.

SIGNIFICANT DEVELOPMENTS IN LATER TREATMENT

Treatment Summary II: Part One:

Parent Counselling

Date: June 1978

Dates of Sessions: 1/78 to 6/78

Sessions twice a month with L.'s mother, Mrs. M., continued during the past half year. Several major incidents expressive of her own conflicts jeopardized the continuation of L.'s treatment and introduced difficult problems into the overall treatment situation. A manifestation of the underlying difficulties which were developing was Mrs. M.'s neglecting to pay her clinic bills for many consecutive months. Her failure to pay also reflected unresolved issues between Mr. and Mrs. M. who have been divorced. I had discussed the nonpayment with Mrs. M. several times until I finally insisted that each subsequent bill be paid on time, with additional money toward the balance included when possible.

In January, Mrs. M. unexpectedly informed me that she wished to terminate her daughter's treatment. Taken quite by surprise, I was disturbed by the fact that Mrs. M. had suddenly made a decision, not in her child's interests, and had arrived at it without including me in the decision-making process. Neither had she informed me that

she was even considering terminating. When asked about her reasons, Mrs. M. stated that she now felt she could handle her daughter's problems without help and wanted to do so. She spoke about wanting to improve her relationship with her daughter and about feeling ready and able to devote more attention to this than she had in the past. Mrs. M. also mentioned that her boyfriend believes he knows how to deal with L.'s problems and has taught Mrs. M. a great deal in this regard since he has moved in with the family.

When I explored the overt and possible covert meanings of this development, Mrs. M. stated that when the location of the treatment had first been changed, she had been under the impression that I would only be working at this new location for one year and would subsequently work some place closer to where she and her family lived. Therefore, Mrs. M. had been resenting the long twice-a-week commute, particularly because she is an inexperienced driver and has progressive myopia which intensifies her concerns about driving.

In response to Mrs. M.'s stated resentment, I first clarified what I had told the family at the time of my job transfer, namely, that I would definitely be working at my new job for one year but that my plans beyond that one year were uncertain. More importantly, I forcefully addressed the fact that for an entire year, Mrs. M. had been resenting bringing L. to the clinic but had not mentioned these feelings to me. Mrs. M. recognized her pattern of not expressing her feelings which had been most clearly demonstrated to both of us in the events leading up to her divorce. In the same session, Mrs.

M. indirectly expressed resentment toward all the therapists who had assumed so much of the responsibility for her daughter. She did not, however, realize the extent to which she herself had wanted and invited the therapists to do just that.

An additional factor in Mrs. M.'s wish to terminate treatment seemed to be the addition of Mrs. M.'s boyfriend to the family. For reasons which are unclear, he apparently wished to "rescue" L. himself and to prove that my help was not needed. In this connection, it is relevant to note that at the outset of Mrs. M.'s relationship with him, I had been strongly recommending individual treatment for her and that he threatened to leave her if she entered treatment.

In response to Mrs. M.'s proposal to terminate, I pointed out 1) that Mrs. M. was suggesting that only she or I could help L. rather than both of us, 2) that Mrs. M. seemed to conceive of the roles of mother and therapist as equivalent, while I did not, 3) that Mrs. M. saw me as someone to remove from the situation in order to improve her relationship with L. rather than as someone who might facilitate that process, and 4) that it was not in L.'s best interests to terminate treatment at this time.

Simultaneous with these developments in the treatment, the results of psychological tests which had recently been done with L. became available.⁵ Mrs. M. and I decided that she and her boyfriend would meet with the psychologist for feedback on the testing and

⁵See Appendix B for summary of findings of Psychological Testing, third administration, October 1977.

would also use the meeting for consultation regarding continued treatment. At the feedback session, the psychologist reiterated the need for treatment and, among other comments, told Mrs. M. and her boyfriend that a significant organic factor seemed to be present. Mrs. M. and her boyfriend both viewed the organicity as a reason for continuing treatment, feeling that they themselves would not be capable of dealing with an organic problem as opposed to an emotional one.

Subsequently, however, the frequency of sessions with L. was reduced from twice to once a week, with the two counselling sessions per month with Mrs. M. continuing. At this point, Mrs. M.'s boyfriend was invited to join the counselling sessions, having formerly expressed interest in doing so. In sessions, he displayed contemptuousness, resentment and competitiveness toward me. He denied the hostile implications of the jokes he made at my expense and attributed no significance to his reading a comic book while in session. Mrs. M.'s and her boyfriend's attendance became erratic and I requested that she attend each session, even if her boyfriend could not accompany her on that day. Her boyfriend quickly stopped coming to sessions and regular meetings resumed with Mrs. M. alone. She informed me that she and her boyfriend had instituted a home chart with tasks for L., along the lines of a behavior modification program.

A second major event occurred at the end of June when, in session, I noticed that Mrs. M. looked large and asked her if she was pregnant. She answered affirmatively and said, in fact, that she was in her fifth month. When I inquired why she had not told me

about the pregnancy, she treated the matter lightly, denying that her not telling had any significance whatsoever. While the meaning of Mrs. M.'s secretive behavior remains unclear at this point, the following are possible interpretations: 1) that part of Mrs. M.'s motivation for having another baby might have been to prove to herself that she could be a better mother with a second child than she was with L.; 2) that Mrs. M. did not tell me about the baby because, in order to feel that this was her baby, she must keep it all to herself and "out of my reach"; 3) that even telling me about the pregnancy threatened her sense of herself as the mother of the child; 4) that Mrs. M.'s feelings of autonomy and competence as a mother are so tenuous that she must go to great extremes in order to bolster them; and 5) that not telling me was an expression of Mrs. M.'s anger toward me and a reflection of her ambivalence about my continued treatment of her daughter.

Treatment Summary II: Part Two:

Psychotherapy with the Child

In recent months, L. has maintained the gains she had made in treatment and has also progressed in several new areas. Most important, the diagnostic picture has shifted somewhat in light of new developments in treatment and of recent psychological test findings (see Appendix B for findings of Psychological Testing, third administration, October 1977). Psychological testing suggested with greater confidence than had previously been possible that L.'s diffi-

culties are, in part, related to an organic dysfunction which impairs her language and abstract thinking capacities.

In psychotherapy sessions, as well as at home and at school, L.'s behavior has been far less chaotic and out of control than it was at the beginning of treatment. Her ego disorganization has diminished as she has made significant strides in object relations, symbolic play, drive control and expression. The one area in which L. has not shown comparable progress is that of language development.

DEVELOPMENTS IN AUTONOMOUS EGO FUNCTIONS

Symbolic Functioning

Language. While L.'s ability to use language has improved in treatment, it has not kept pace with other areas of ego functioning and appears to be the most conspicuous lag in her development. It seems that L.'s language impairment has become more obvious not only because of its contrast with other ego functions but paradoxically also because of the improvement she has made in her language skills. As verbal interchange has increased in sessions, L.'s difficulties both in understanding what is said to her and in putting her own thoughts into words have become more apparent than they were when she was speaking only minimally to me and was unreceptive to my comments to her. It is important in this regard to note that L.'s increased communicativeness in treatment is, at least in part, a function of her enhanced capacity for relatedness as well as of maturational development.

To briefly describe her language, L. speaks more responsively than spontaneously. Her spontaneous speech consists mostly of stock phrases and overlearned social amenities. Only rarely does she express an original thought or feeling. She does initiate activity and make suggestions, such as "let's write notes," and does directly or indirectly communicate a need, for example, by saying, "I can't do this," or "Miss Greenberg, help me with this?" Yet L. never speaks spontaneously about events in her life, though she will often respond to questions I ask about them. Because her responses are typically brief and unclear, I must often ask her many questions in order to understand anything about the event she is attempting to relate. Moreover, her responses often reveal the fact that she did not understand the initial question posed but rather responded with one of her overlearned, prerehearsed phrases, such as "maybe" or "I think so." It is clear that L. has stored a repertoire of these expressions which she retrieves in an adaptive effort to get by. Among other linguistic structures, L. does not seem to understand questions that begin with "where," "why," "when" and sometimes "who." Therefore, her answering a question such as "Where did that happen?" with a response such as "Could be" directly reveals her receptive language difficulties.

Abstract thinking and conceptualization. It is also clear that L.'s capacity for abstract thinking and conceptualization is very limited. This limitation may account for her difficulty with questions about "where" and "when," in that both require that she reconstruct an event mentally and respond from her mental representation

of the event rather than from more concrete sources of information. L.'s inability to answer a question about when an event took place also reveals her deficient time orientation. It is not clear what L.'s conception of "last year" or "month," or "week" might be, but it is clear that she cannot orient herself temporally. She is familiar with the concepts of "yesterday," "today," and "tomorrow" but not with the concepts of "the day before yesterday" and "the day after tomorrow." L.'s conceptual impairment is also apparent in her deficient understanding of conceptual relationships. For example, she does not know that her grandmother is her mother's mother. With repeated practice, she can learn this type of information through rote memory but does not grasp it conceptually.

Psychotherapeutic interventions. In therapy sessions, L.'s verbal difficulties have become the focus of increased attention. I have attempted at all times to maximize verbal interchange by speaking to L. a great deal and by asking her many questions. I must often reformulate questions that L. does not understand into more simplified and concrete language. I offer her several choices for answering a question so that she can choose one and thereby practice verbalization. I model language which L. may be able to learn through imitation thus providing her an alternative to confabulating when she cannot answer herself.

A new aspect of the work in sessions in recent months has been my drawing attention to and labelling L.'s language difficulties as a problem. I have articulated her expressive and receptive language

deficits in the hope that L. might be able to recognize them and thus adapt to them more effectively. I have tried, for example, to encourage L. to tell people when she does not understand what they say in order that they may recognize that and try to make themselves better understood to her. I have often used very concrete methods of teaching L., even to the point of giving her the precise words she may need in a situation. For example, I have instructed her on repeated occasions to say to people "I don't understand that," or "that's a hard question," when she does not understand what they say. In working on this problem with L., I discovered that I had to teach her what a "question" and "answer" are and what "easy" and "hard" mean.

Play. Many of the activities which L. chose in sessions these past six months were continuations or expansions of trends she had previously established. In terms of her symbolic functioning, she sometimes played with puppets or small dolls enacting family scenes of outings, for example, to restaurants and to the circus. She sometimes created role-playing scenes in which she and I each took a part, most often of two friends going to a restaurant to eat. On at least one occasion following my telling her about the upcoming reduction in sessions, L. enacted an "earthquake" scene with dolls. In sum, her symbolic play thus seemed to provide her with the opportunity for working through an unpleasant experience and for sublimating oral and aggressive strivings.

In terms of latency-age type activities, L. continues to enjoy a competitive game of skill consisting of tossing a ball into a can

to score points. Although L. keeps score and gives the appearance of playing an age-appropriate game, she has difficulty abiding by the rules and often takes extra turns in order to win.

DEVELOPMENTS IN NONAUTONOMOUS EGO FUNCTIONS

Skill, Mastery and Defense

The range of L.'s activities in session is still quite narrow as she repeats her limited repertoire in a stereotypic, well-rehearsed way. Nonetheless, her current activity patterns do represent an advance in both quality and quantity.

In the past, L. underwent phases during which she demanded that an activity be repeated in precisely the same fashion for many consecutive sessions. During one phase, for example, L. began each session by suggesting that she and I "write notes" to one another. This ritual was repeated unfailingly at the outset of each session, with L. opposing any deviation I might suggest. As L. first began to relinquish the ritual, she would at some point during the hour exclaim, "Oh, we forgot to write notes!", until what had initially been an exclamation of surprise also became a ritual. Finally, L. stopped the exchanging of notes. The note-writing had probably been multiply determined by her need to manage her initial anxiety with a structured ritual, by her need to make contact in a way that was distant enough for her to feel safe, by her readiness for reciprocal giving and taking, and by her wish to practice and exhibit newly acquired skills.

Another activity which L. rigidly repeated for several months

before January was her reading Rudolph the Red-Nosed Reindeer aloud to me from cover to cover. As L. "read," I noticed that she was, in fact, looking at the pictures and reciting the book word-for-word from memory. On one occasion, L. forgot the book but recited it from memory nonetheless. Later in the year, she showed some increased flexibility when she agreed to my suggestion that she recite only half the book in any one session and complete the second half during the following session. Eventually, L. ended that activity, too. As was the case with the note-writing, L.'s "reading" demonstrated the rote quality of her behavior as well, probably, as her wish to exhibit her skills to me. In addition, it demonstrated her defensive use of a cognitive task in that the reading successfully precluded her involvement in other kinds of activities which might have been more anxiety-producing for her. During her recitations, L. resisted my attempts to stop and talk about aspects of the story. But this also diminished, thereby enabling me to introduce the theme of "loneliness" in connection with the story. While L. exhibited excellent rote memory in her rendering of the story, her recitation was characterized by poor articulation, lack of voice modulation, exaggerated and probably imitated intonation. Her overall comprehension of the story may have reflected extensive exposure to it, possibly at home or at school, rather than her independent reading comprehension.

L. began tracing drawings during the past few months, reflecting the development of age-appropriate compulsive defenses. She used these rigidly, however, insisting on throwing out her tracing

and starting over as soon as she made the slightest error. I began limiting the number of pages that L. could use and verbally sanctioned the making of mistakes. Gradually, her rigidity diminished.

Reality Testing

L.'s verbal and conceptual problems complicate attempts to assess her level of reality-testing. More specifically, she does not possess the verbal and conceptual skills needed to assimilate and comprehend certain kinds of information about reality and to cognitively organize the information she does take in in a meaningful way. In addition, it is difficult to find out what L.'s conception of her world is, given her limited capacity for self-expression. Yet it is evident from her behavior that her reality-testing has improved in connection with the increased differentiation and integration of other ego functions, for example, numerous behavioral changes reflect her increased knowledge of what is socially appropriate and expected.

DEVELOPMENTS IN OBJECT RELATIONS

Relatedness and Reciprocity

L. has continued to make progress in the direction of greater interpersonal relatedness. For example, she participates in dialogue for longer periods of time. She continues to listen to me and answer my questions rather than tune me out. The fact that I feel more engaged with L. and have begun to enjoy her company is a strong indication of her increased object relational capacity.

Currently, L. spontaneously offers to share play materials with

me and does so without apparent conflict or difficulty. In general, her oral neediness has somewhat diminished as reflected most directly in her decreased need for food. She can, for example, set limits on the number of cookies she takes and be satisfied with a reasonable amount.

Object Loss

Two incidents are significant to note in connection with the change in treatment from two to one session a week. Several times, I explained to L. that her mother was not able to bring her twice a week, that I was sad about the change, and that it would probably take some time for both of us to adjust to it. In the course of one such discussion, L. said the word "lonely." In another context I had previously taught L. that "lonely" means "feeling all by yourself." In this instance, L.'s saying "lonely" can be taken to represent some awareness of her feelings of losing me in response to losing one session. This example of L.'s spontaneously verbalizing an inner feeling even minimally, represents an isolated instance of a kind of functioning which future treatment will aim to promote.

In February, after the change from two to one session, two consecutive sessions were missed (one because of my vacation and one that Mrs. M. cancelled) creating a gap of three weeks without contact. During the subsequent first few sessions, L. would initially demonstrate regressive behavior typical of earlier phases in the treatment. She engaged, for example, in isolated activities. By the end of the sessions, however, L. had returned to a more advanced

level of functioning.

Object Constancy

L. has shown an increased capacity for maintaining object-constancy, for maintaining a more stable and continuous sense of the existence of other people. Prior to my vacation in January, L. asked, "Will you be here next week?" Then, prior to my vacation in April, she asked, "Will you miss me?" Once, L. gave me a note that she had written and illustrated on her own initiative. All three interchanges suggest that I continue to exist mentally for L. even when we are separated.

Peer Relations

The word "lonely" had appeared in L.'s favorite book in sessions, Rudolph the Red-Nosed Reindeer. Thinking that perhaps L.'s continued interest in the book might represent an identification with Rudolph, I had spoken with L. about how alone and unhappy Rudolph felt without friends and I suggested that perhaps L. also felt alone and unhappy at times. On several occasions, L. was able to tell me (in response to questions) about children not wanting to play with her in school, about being teased and called names (such as "crazy"), and about one incident of being teased wherein she cried and the teacher asked the children to apologize to her. Again, this interchange about friends represents what has been the exception rather than the rule for L. in sessions. However, it foreshadows a greater ability to recognize her inner life, share it, and thus make it accessible to treatment.

Self-Identity

Fostering a more continuous sense of self has been a goal in treatment which I have addressed by discussing past, present, and future events with L. The aim has been that L. be able to integrate memories of the past with experiences in the present and anticipations of the future. When I refer to experiences that L. and I shared earlier in treatment, she responds with recognition and pleasure. Recently, she herself made a reference to the previous location of our treatment sessions. I often tell L. about what she was like when we started working together, emphasizing the says she has changed and become "more grown up." Now L. makes occasional references to "growing up" and to being a "big girl" and then a "lady."

SUMMATION

A final change in L.'s behavior in sessions, alluded to above, has been her increased willingness to bring aspects of her life outside the therapy room into sessions. She has tolerated longer discussions of events external to the treatment and also has been willing and even eager to show me the dance steps which she has learned in dance therapy.

In relation to recent changes in her family constellation, L. is only now, after months of my drilling her, beginning to learn the various relationships between members of her family (for example, that Mr. C. is her mother's boyfriend but not L.'s father). In response to questioning, L. has said that she is happy about the pros-

pect of having a sibling, but I have begun to introduce the idea that she may not always feel happy about the baby and that she and I can discuss her possible other feelings as well.

Informal reports from L.'s school indicate continued behavioral and academic improvement. More specifically, L.'s teacher commented on her increased impulse control, motor coordination and ability to complete assignments.

At home, L. reportedly continues to be largely cooperative. Mrs. M. has spoken, however, about L.'s wish to steal from stores and related one incident wherein L. did take candy from the supermarket. Mrs. M. feels that L. "knows she's not supposed to" because L. will look around while in the store to see if she is being watched. A similar problem of not obeying prohibitions related to oral needs has appeared at the children's outpatient department, in that I have repeatedly asked L. not to enter the kitchen alone but she "forgets." On one occasion, L. finished her own drink and asked me for a sip of mine. I agreed but, anticipating a problem, reiterated the agreement of "just a sip." L. then drank the whole cup. While L. said "I'm sorry" (in a prerehearsed sounding fashion), her behavior reflected a lack of superego development, possibly related to failures in the processes of identification and internalization. It likewise reflects impaired conceptualization, faulty impulse control, and persistent orality.

In sum, L. has shown no serious regression despite a decrease in the number of sessions and despite significant changes within her

family. The beginning emergence of age-appropriate defenses and interests is a positive indicator as are the beginning signs of a capacity to observe and share her inner life.

Discussion: Part One:

Critical Functions of Parent Counselling

The primary tasks of parent counselling as an ongoing adjunct to psychotherapy were set forth in Chapter V, in the presentation of the treatment approach of the proposed ego psychological model of childhood psychosis. The multiple ways in which parent counselling can potentially facilitate psychotherapeutic progress, by benefitting the parents, the child, and the therapist, were likewise discussed.

Undertaken for the entire duration of the child's psychotherapy, guidance work with the parents typically extends over many years. Aimed to address the manifold and intricate needs of the parents and child alike, the content of the work and the interpersonal processes through which it is accomplished are cognitively and emotionally complex. A clinical application of the proposed approach to adjunct parent counselling would therefore constitute a task of proportions equal to those entailed in the clinical application of the proposed approach to the psychotic child's psychotherapy. Although this task cannot be addressed within the context of the present paper, it is of utmost importance to recognize that the psychotherapeutic processes and progress described in Treatment Summaries I and II were, to a significant extent, potentiated by the consistent, in-depth

work of the parent counselling sessions, conducted in accord with the proposed treatment model. The parallel therapeutic endeavors with the parent(s) and the child demonstrate the following truth: given that the psychotic child has been so deficient in adapting to his environment and that every facet of his daily life is so directly dependent on interactions with the environmental support system, no stable change in his adaptation can be effected without the parent's promoting corresponding shifts in the emotional and physical circumstances of his life. While the same holds true, to some extent, with regard to all of child psychotherapy, the gross disorders of ego functioning and object relations characteristic of the psychotic child render parental collaboration with the therapist in supporting the child's developmental progress and enhanced adaptation even more critical.

Likewise true of all child psychotherapy but poignantly demonstrated in Treatment Summary II: Part One is the fact that the week-to-week continuation of the psychotic child's extensive psychotherapy is ultimately and directly dependent on a solid working alliance between the therapist and parent(s). The child's treatment was originally initiated as a result of a decision made by the parent(s) and has similarly proceeded only because of his (their) continued motivation for treatment. The treatment can be jeopardized at any point by a shift in the balance of either parent's motivational or attitudinal factors. Most experienced child psychotherapists have experienced a premature termination prompted by changes within the

parents which can occur in reaction to or independent of changes in the child. Even if such a termination negates the clinical needs of the child, as evaluated by the therapist, the therapist is often unable to influence the parent(s)' decision and ensure continuation of the treatment. Importantly, however, the segment of the parent counselling work presented in Treatment Summary II: Part One demonstrates that the therapist will be in a better position to effect a more optimal outcome for the child if he has established a solid working (and affective) alliance with the child's parent(s).

At the point of Mrs. M.'s decision to terminate L.'s treatment, I had been working intensively with Mrs. M. for 14 months. She had come to recognize and rely on my clinical competence and genuine concern for both her and L. My commitment to helping them had been conveyed not only during the actual work of treatment but particularly in my having transferred the case and continued treatment at my new job location. I therefore have reason to believe that the strength of Mrs. M.'s attachment to me, trust in my judgment, and reliance on my help contributed to her willingness to reconsider her decision to terminate L.'s treatment, in spite of her conflict and of opposition from her boyfriend. In this connection, the above factors probably facilitated Mrs. M.'s consent to seek consultation from the psychologist who had recently tested L. and with whom Mrs. M. had had previous contact five years before, when the psychologist performed the first administration of psychological tests with L. on initial evaluation. Mrs. M.'s former contact with the psychologist may have

likewise reinforced her respect for the psychologist's assessment of L. and corroboration of my recommendation to continue L.'s treatment. Further, it was the psychologist's report of a contributing organic factor which apparently led Mrs. M. and her boyfriend to feel that they could not handle L.'s problems without outside help.

The case material presented in Treatment Summary II: Part One exemplifies several additional important points. First, it demonstrates that the work of parent counselling not only address the problems of the child but must directly deal with the psychodynamic conflicts of the parent(s). It is my belief that this principle holds true for the ongoing work of parent guidance and not just for the crisis situations which emerge and threaten the continuation of treatment. The general applicability of this principle is based on the fact that the patterns of parent-child interaction which require modification in the service of the child's developmental progress reflect the external life circumstances and psychodynamic needs, wishes, and conflicts of the parent(s). Alteration of these ingrained patterns, therefore, will not be effected solely on the advice of the therapist but rather necessitates that adequate attention be paid to those psychological factors responsible for their creation and perpetuation. Also, the child's parent(s) will not be as amenable to attempting to meet the child's needs if their own are not being recognized and respected by the therapist.

Second, the parent-counselling material presented points out that because the necessary discussion of the parent(s)' external and

internal realities is often neglected or resisted by the parent(s), it must be actively and tactfully pursued by the therapist. The therapist's failure to engage the parent(s) in discussion of their overt or covert difficulties in relation to the child can undermine the therapeutic progress and/or the entire treatment itself.

Third, several psychodynamic issues often evoked in the parent(s) during the course of their child's treatment are alluded to in Treatment Summary II: Part One and include the following: 1) parental competitiveness with the therapist who serves as a substitute "good object" and fulfills parental roles; 2) parental insecurities about their own capacities to perform paternal and maternal functions and satisfy the child's multiple needs; and 3) unresolved parental conflicts involving dependency needs versus strivings toward independence and autonomy.

Lastly, as also illustrated by my work with L.'s mother, shifts in the constellation of family and extended-family members (in this case, the introduction of Mrs. M.'s boyfriend into the family system) can precipitate changes in the parent(s)' attitudes toward treatment and thus create serious repercussions for the child's development and psychological welfare.

Discussion: Part Two:

Further Diagnostic Considerations

INTRODUCTION

The following discussion will illustrate the clinical integration

of diagnosis and treatment, as advocated by the proposed ego psychological model of childhood psychosis. More specifically, it will demonstrate 1) the need for prolonged therapeutic investigation of structural and etiological issues raised during the initial diagnostic evaluation, 2) the potential contributions of the data of treatment to diagnosis when assessment is defined as an open-ended, ongoing process, and 3) the use of the diagnostic data of treatment in guiding psychotherapeutic interventions. While the present clinical application of the proposed model is carried out by way of selected illustrations, it should be kept in mind that, through their dynamic integration, the diagnosis and treatment of childhood psychosis both address the entire constellation of deviant ego and object relations development which defines the disorder. In keeping with the earlier discussion in Chapter IV of the role of observational data in the diagnostic assessment of children, the extent to which behavioral observation of L. was relied upon for diagnostic purposes (particularly in light of her extreme language deficits) should also be noted.

STRUCTURAL ASSESSMENT

Diagnostic Labelling Versus Ongoing Developmental Assessment

The insufficiency of singular, diagnostic labels and the critical need for structural assessment of ego and object relations development is readily demonstrated by the discrepant diagnoses assigned to L. during various procedures of the initial diagnostic evaluation

and by the changes in her diagnostic picture which emerged during treatment.

The findings of a Screening Evaluation for a Therapeutic Nursery and of the first administration of psychological tests, both performed when L. was 3 years 8 months old, are summarized in Appendix B. The divergent Diagnostic Impressions reported were "sympiotic psychosis" and "prepsychotic condition." The behavioral data on which the diagnoses were based are presented in Appendix B in accord with the proposed model's principles of structural assessment. The organization of the raw data permits for a comparison which reveals similar assessments of ego and object relations development. Without delineation, however, of levels of ego and object relations development, the intended meaning of the two diagnostic impressions reported would be lacking, and the two diagnoses, in and of themselves, would falsely suggest discrepant clinical pictures. Similar arguments can be made regarding the diagnostic impression of findings "consistent with a schizophrenic picture," which was based on the second set of psychological tests, administered only seven months after the start of L.'s treatment. This impression would further confound the diagnostic picture if its underlying structural referents were not delineated. Yet, given their careful examination, the gross distortion of ego and object relations development which L. presented becomes eminently clear.

In light of the thinking just outlined, the course of L.'s

developmental progress during treatment could not be adequately represented by a series of diagnostic labels periodically assigned. In the section immediately following, the modifications in ego and object relations functioning, prompted by L.'s treatment, and the complexity of their interrelatedness are discussed.

With regard to etiological issues addressed in the latter portion of the discussion which follows, the reported findings of the Screening Evaluation and the second administration of psychological tests made no mention of a possible organic contribution to L.'s deviant developmental progress and patterning. The report from the first psychological testing stated that while "organic involvement of a nonfocal sort" could not be ruled out, psychopathological causation was considered more likely. As already mentioned in Treatment Summary II: Part Two and as will be further discussed, considerable clarification of the question of organic involvement emerged only as a function of ongoing diagnostic assessment throughout two years of intensive psychotherapeutic work.

Developmental Progress

In Treatment Summary II: Part Two, attention was paid to progress observed in aspects of L.'s ego and object relations functioning. While her receptive and expressive language capacities remained severely deficient, considerable progress in verbal expression was nonetheless evidenced. Notable advances also emerged in nonautonomous aspects of ego functioning--in reality functions, defensive operations, and drive control and expression. L. demonstrated in-

creasing object relatedness, collaboration and sharing. She exhibited a beginning capacity for object constancy and an emerging sense of her own continuous existence. In conjunction with newly acquired skills, L. thus gradually exhibited enhanced mastery of her internal and external realities. Specific components of my role in promoting these developments included my drawing her attention to more and more aspects of her environment, her behavior, and the external manifestations of her thoughts and feelings. I encouraged her practice and enjoyment of newly-attained abilities while stimulating her verbal capacities and self-chosen forms of play. Undue frustration was avoided and maximum gratification afforded. L.'s increasing ability to execute self-initiated activities and meet self-determined goals strengthened her mastery of reality and dawning sense of self.

Enduring Developmental Distortion

While the case material in Treatment Summary II: Part Two demonstrates the reinstatement of developmental process during L.'s psychotherapy, the extent of developmental disruption which in general characterizes childhood psychosis precludes both rapid and total restoration of normal personality functioning.

Considerable evidence of structural maldevelopment coexisted with signs of L.'s developmental progress. Most indicative of enduring developmental distortion was the extreme degree of variability in ego functioning she continued to display. L.'s repeatedly uneven performance on I.Q. tests administered at ages 3 years

8 months, 4 years 11 months, and 7 years 8 months attests to the enduring nature of her wide-ranging levels of ego functioning. As summarized in Appendix B, the reports of all three test administrations called attention to the extreme degree of scatter between L.'s attained subtest scores. The variability of her functioning was further evidenced in her scores on the Wide Range Achievement Test, a test of academic achievement, administered at age 7 years 8 months. While L.'s 21st percentile ranking in Arithmetic reflected grossly deficient conceptual skills, her 98th percentile ranking in sight reading of individual words reflected her remarkable memory functioning. In sessions, L. used minimal cues to recite from memory the entire book of Rudolph the Red-Nosed Reindeer. By contrast, she understood only part of standard, daily conversational language and verbally expressed even less. L. had little or no sense of when an event had occurred nor could she clearly convey its essential happenings.

To sum up the developmental deficits which L. exhibited during the time period covered by Treatment Summary II, L.'s rigid usage of stored bits of language and minimal verbalization of original language forms lent a stilted, unintegrated quality to her speech. Her severely restricted grammatical flexibility, unusual intonation, and unclear articulation rendered her speech additionally peculiar. Moreover, L.'s highly deficient cognitive integration skills precluded the meaningful assimilation and coordination of stored information for adaptive use. L.'s ability, for example, to sequen-

tially recite the days of the week did not promote a usable temporal orientation. The interrelatedness of her language and other ego functions will be discussed in the next section and will shed light on L.'s less-than-age-adequate levels of delay, drive control, and object relations.

Beyond the variability between developmental levels of different ego functions, variability within ego functions also characterized L.'s behavior. Her use of the word "lonely" in response to my informing her of an upcoming reduction in sessions constituted a rare instance of L.'s at least partial recognition of a subtle affect and of her communicating it to me. Further, in the context of generally adequate drive control, L. still threw occasional temper tantrums when frustrated.

L.'s fluctuating levels of functioning and periodic explosive outbursts may be understood in terms of faulty ego synthesis. The fragmented, uneven quality of her ego development and the absence of cognitive-integrative skills to support synthetic functioning rendered her vulnerable to internal and external stress. L. lacked high frustration tolerance, strong sublimatory capacities, and effective means of dealing with anxiety, all of which would have promoted greater internal equilibrium and more stable personality functioning. The rigidity of her thought and action patterns further diminished the stability of her adaptation.

Interactional Aspects of Ego and Object Relations Development

The proposed ego psychological model defines childhood psy-

chosis in terms of gross deviation from the normal course of development. Given that normal developmental processes depend on the ongoing interactions of emerging ego and object relational capacities, the resumption and/or redirection of developmental processes in psychotic children is likewise a function of continuous interactions between evolving object relations and ego functions. Intra- and intersystemic dynamics constitute a further integral aspect of progressive developmental processes.

At the outset of treatment, L.'s inability to delay gratification and control drive expression was partly attributable to her lack of object constancy. Combined with L.'s deepening libidinal feelings for me, the redirection of her aggression into mastery led to the neutralization and sublimation of aggression, which in turn helped to promote object constancy. As a result of L.'s faulty management of anxiety and deficient modulation and expression of drives, attention, concentration, and motoric functions were vulnerable to anxiety and drive disruption. With the gradual development of defense mechanisms and drive-regulating capacities, attention, concentration and motor functioning all improved. Decreased fluidity and increased stability of ego functioning and organization accompanied L.'s enhanced management of anxiety and aggression. The latter were, in turn, promoted by the availability and auxiliary ego functioning of a substitute maternal object.

During the early psychotherapy sessions, L. utilized her outstanding memory functions for defensive purposes. Absorbed in her

own autistic functioning, she mumbled television commercials and jingles to herself. It appeared that, in the absence of external stimulation, she had previously learned to employ the recitation of memorized, inanimate language in the service of self-stimulation and protective, autistic withdrawal. As she gradually relinquished autistic defenses in treatment, L.'s outstanding memory functions appeared increasingly channelled into nonconflictual areas of ego functioning such as learning and mastery of the environment.

In light of L.'s severe language impairment, its effect on other areas of ego functioning merits examination. It should first be stressed, however, that my gradual recognition of the extent of L.'s language impairment prompted specific therapeutic interventions. As described in Treatment Summary II: Part Two, I invested increased effort in stimulating L.'s verbal functioning, paying close attention to both receptive and expressive difficulties. In order that L. might eventually learn to compensate for her language deficits, I began to label and draw her attention to them. I also taught her concrete ways of handling them interpersonally.

Because language and conceptual thinking play a major role in the development of object relations and of numerous ego functions as well, L.'s neurologically based dysfunction in central language and abstract thought processes greatly interfered with her overall development. Speech is learned and used in an interpersonal context and particularly aids separation-individuation processes. Thus, L.'s speech disorders directly impinged on the events which

transpired in that context and on the unfolding of her object relations. By enabling the child to put his needs into words, languages allow him to envision the task of getting them met, to communicate them, and to modulate the drive derivatives associated with them. It is therefore reasonable to assume that L.'s grossly deficient language skills hindered her ability to tolerate frustration, delay gratification, and regulate drive expression. Additionally, she was hampered in using language and abstract thinking to cognitively organized incoming information and to conceptualize her internal and external worlds. These factors help to explain the gaps in her reality functions and adaptation. In general, the case material also demonstrates the direct correspondence between L.'s level of object relations and ego functioning at any given moment. For example, when, as a result of my vacation, L. experienced a sense of object loss, she briefly regressed to her former mode of isolated play.

ETIOLOGICAL ASSESSMENT

Organic and Environmental Factors

The importance of extending diagnostic assessment throughout treatment and of using treatment as a major source of diagnostic data is demonstrated by the increased clarification of etiological issues during the course of psychotherapy with L. Findings of deviant language and motor functioning from the initial diagnostic evaluation raised the possibility of an organic factor having con-

tributed to the extreme distortion of her ego and object relations development. The first two psychological test administrations did not, however, offer confirmation of this hypothesis. On the other hand, an experienced and prominent child psychiatrist who observed L. and reviewed her case at the outset of treatment stressed organic etiology in her diagnostic assessment of L. Only after $2\frac{1}{2}$ years of treatment did clear evidence for an underlying neurological impairment emerge in psychotherapy and on psychological testing and answer the long-standing diagnostic questions. As L.'s development in object relations and in numerous sectors of ego functioning progressed during treatment, a gross disturbance in her language and conceptual skills became increasingly conspicuous.

In earlier stages of the psychotherapy, the attempt to establish the presence of an organic substratum was made difficult by the pervasiveness of ego deficits and disorganization. The breadth and depth of developmental distortion and the chaotic nature of L.'s functioning precluded discrimination of causal factors. Only after considerable developmental advance had been made and greater ego stability established was a growing disparity between language and other ego functions discerned. Further, the peculiarities of L.'s speech patterns, as well as the extent of her language and conceptual deficits pointed to a central nervous system disorder rather than to a development lag.

L.'s clumsiness (tripping, spilling, and bumping into objects) diminished greatly during the first eight months of treatment, in

connection with the increased modulation of aggression. One and a half years later, however, psychological testing (third administration) yielded "soft signs" of neurologically-based motoric deficits. Thus, after L.'s treatment alleviated the interference of functional factors with adequate motor functioning, suggestions of organic interference emerged with greater clarity. L.'s having been restricted to a playpen during the developmental period for practicing locomotor skills contributes an additional argument supporting the functional aspect of her motoric dysfunction.

Counselling work with Mrs. M. provided confirmation of prior speculations about external etiological factors. Initial impressions of L.'s early caretaking were strengthened by Mrs. M.'s periodic historical accounts. In addition, through my extended contact with Mrs. M., I increasingly recognized emotional detachment and reliance on intellectual defenses as primary aspects of her personality make-up. These complementary traits helped to account for much of what I learned about L.'s past and present environment. I also witnessed Mrs. M. make several major decisions which satisfied her own needs but neglected L.'s.

The Interaction of Internal and External Etiological Variables

An interactional theory of etiology constitutes a crucial component of the proposed ego psychological model of childhood psychosis. The etiological contributions to L.'s psychotic development can readily be used to illustrate the interactional approach. It is justified to wonder whether either the organic or the negative

environmental influences alone would have led to the severe disorders in ego functioning and object relations which characterized L.'s development. If, for instance, she had not been confined to a playpen for a prolonged period of time, might not adequate freedom to practice motor skills have at least partly compensated for the probable neurological factor? Would not physical freedom have facilitated her assimilation of information about external reality and aided her ego mastery? Likewise, the opportunity to move about fully would have enhanced her sense of separateness and autonomy. Given, however, the fact of extreme physical restriction, this environmental circumstance may actually have exacerbated an already present constitutional vulnerability.

The facts of L.'s human environment have enormous implications for her language development. And the consequent development of her language functions, in turn, have strong bearing on the emergence of her other ego functions and early object relations. As is likely to be the case with her motor development, the absence of sufficient opportunity for practice probably compounded the inherent effects of a neurological dysfunction in central language processing. The lack of adequate interpersonal stimulation of language development would be particularly damaging given that language is essentially learned in an interpersonal context. Equally significant is the possibility that organically-based language deficits may have diminished L.'s ability to utilize the environmental input she did receive. As she was undoubtedly less verbally responsive to the

people in her environment than would be expected, she may not have elicited the positive responses that the toddler's use of language typically evokes. Her failure to comprehend what was said to her would also distort early interpersonal events. Moreover, with verbal speech unavailable to her, L. had fewer and less appealing ways of obtaining need satisfaction from surrounding adults. In fact, her inability to utilize language to tolerate frustration and delay gratification would have provoked highly unacceptable behavior and may have contributed to her temper tantrums which reportedly began at age 2. Again, it is reasonable to wonder whether the developmentally adverse aspects of L.'s environment, in the absence of a central nervous system disorder, would have resulted in the extensive developmental deviance which L. displayed at the outset of treatment. While such questions are inherently unanswerable, they stress the significance of the interactional dimension of the etiology of childhood psychosis.

CONCLUDING REMARKS

The application of the proposed ego psychological model of childhood psychosis to data obtained from diagnostic and psychotherapeutic work with L. selectively illustrates major components of the model. The clinical material and discussion does not scientifically prove the validity of the model. The intent of this paper and more specifically of Chapter VI was, however, to

evoke thoughtful consideration of the central concepts proposed by the model. It has been suggested that childhood psychosis is most comprehensively and usefully conceptualized in terms of the severe deviation of ego and object relations development from their normal developmental course. The expected unfolding of the early stages of object relations development has been viewed as the sine qua non of normal ego development. These two sectors of personality functioning are thought to emerge by way of their complex interrelatedness in development and as a result of intricate interactions between organic and environmental contributions to development. Because the treatment approach set forth by the model is based on the definition of childhood psychosis as the gross distortion of normal developmental progress, it aims to undo that distortion, to the fullest possible extent, by the therapist's reliving with the child the critical early stages of ego and object relations development, in a more optimal way than originally occurred. A firm grounding in the developmental, ego psychological theory of normal development is thus the critical foundation needed for the diagnosis and treatment of childhood psychosis.

APPENDIX A

Historical Overview of Psychoeducational,
Psychodiagnostic and Psychotherapeutic Interventions
January 1973-June 1980

<u>Date</u>	<u>Age of Child</u>	<u>Intervention</u>
Spring 1973	3 years 0 months	Recommendation made by well-baby clinic for day care center attendance.
May 1973	3 years 2 months	Enrollment in day care center program.
November 1973	3 years 8 months	Recommendation made by day care center for evaluation at outpatient child psychiatry clinic. Application submitted by mother to clinic. Screening evaluation for therapeutic nursery. Psychological testing, first administration.
June 1974	4 years 3 months	Notification from day care center of unfeasibility of child's continued participation in program.
July 1974	4 years 4 months	Initiation of outpatient treatment. Two therapy sessions per week with child, two counselling sessions per month with parents, and two per month with mother alone on alternate weeks.
September 1974	4 years 6 months	Enrollment in special school program of local board of education.
November 1974	4 years 8 months	Neurological and general physical examination.

<u>Date</u>	<u>Age of Child</u>	<u>Intervention</u>
February 1975	4 years 11 months	Psychological testing, second administration.
June 1975	5 years 3 months	Termination of treatment due to therapist's departure from clinic.
July 1975	5 years 4 months	Initiation of music therapy, individual, weekly sessions.
November 1975	5 years 8 months	Transfer of case to second therapist. Two psychotherapy sessions per week with child, two counselling sessions per month with parents.
July 1976	6 years 4 months	Change in location of treatment sessions due to therapist's change of jobs. Father's participation in parent counselling has ended subsequent to parents' separation.
October 1977	7 years 8 months	Psychological testing, third administration.
January 1978	7 years 10 months	Reduction of psychotherapy sessions to once a week at mother's request.
July 1978	8 years 4 months	Termination of music therapy due to therapist's departure.
July 1979	9 years 4 months	Second change in location of treatment sessions due to therapist's change of jobs.

APPENDIX B

Summary of Psychiatric, Psychological, and
Neurological Assessments
November 1973-October 1977

Screening Evaluation for Therapeutic Nursery
November 1973 (Age of child: 3 years 8 months)

Findings

Object Relations: Seem impaired (e.g., anxiety upon approach;
fleeting eye contact).

Ego Functioning

Reality Testing: Seemed impaired (e.g., drank out of any
container).

Defense Mechanisms: Defenses and ego modification of drives
and anxiety primitive (e.g., avoidance).

Drive Control: Seems impaired at times (e.g., diffuse tem-
per tantrums, masturbatory behavior).

Symbolic Functions: Deficient in language and play, verbal
communication almost nonexistent.

General Characteristics: Unwillingness to accept novelty
but without insistence on absolute sameness.

Diagnostic Impression: Symbiotic Psychosis.

Prognosis: Guarded; yet progress in day care center, ability to make
some contact with people, and certain cognitive
strengths (e.g., reading) suggest a workable sit-
uation.

Recommendations: Ideally, therapeutic nursery situation including
active work with mother.

Because nursery situation impractical for mother-child pair, child should be seen on biweekly basis; mother should be seen once a week; recommendations should be made to staff at day care center.

Psychological Testing, First Administration

November 1973 (Age of child: 3 years 8 months)

Findings

I.Q.: Stanford Binet Intelligence Scale: chronological age, 38 months; mental age, 44 months. I.Q. equivalent: 85 (Low Normal range).

Because of high degree of scatter, I.Q. score probably not indicative of potential intellectual functioning.

Object Relations: Poorly related to mother and others.

Absence of primary autistic features, but some use of stereotyped gestures, phrases and mannerisms, and frequent perseverative play.

Ego Functioning

Reality Testing: Difficult to assess because of primitivity of speech.

Defense Mechanisms: Sometimes capable of using compulsive defenses; more often resorts to selective "tuning out" of environment and/or diffuse motoric discharge of tension.

Affective Expression: At times inappropriate and peculiarly expressed.

Cognitive Functions

Symbolic Functions: Area of most severe impairment, particularly in language.

Language: Expressive. Labelling almost age adequate, but minimal spontaneous speech and verbal conceptual ability. One word utterances prominent; occasional echolalia; occasional use of stereotyped, possibly delayed imitative phrases (e.g., "Gee, very good").

Language: Receptive. Verbal auditory comprehension beyond simple instructions difficult to assess.

Play: When left alone, perseveration on rote activity or aimless wandering with random touching of inanimate objects. When engaged in activity, symbolic play simplistic and characteristic of much younger child (e.g., feeding dolls, sitting them down, placing them in bed).

Body Image: Difficult to assess because no response given to request to draw a person. Showed minimal interest in mirror image.

Memory: Variability of functioning in relation to neutral versus affectively-charged stimuli reflects attentional problem rather than memory deficit.

Attention and Concentration: When nonverbal cues and neutral stimuli presented, retains complex instructions, employs delay and self-critical capacities (e.g., spontaneous correction of errors). Without nonverbal cues and with affectively-charged conceptual issues, high level of distractibility, anxiety, and motoric movement.

Perceptual Functions: Visual discrimination quite good (4 year old level) with neutral stimuli but presentation of affect-laden stimuli (e.g., pictures of animals, humans) causes disruption of functioning, manifested in distraction (preoccupation with details of stimuli), loss of task set, and compulsive labelling.

Motor Functions: Some general awkwardness, restless, anxious activity (e.g., jiggling legs, movement around room). Gross motor coordination appears poor. Fine motor coordination appears age adequate, though no better.

General Characteristics: Developing ego functions quite vulnerable to anxiety (e.g., attention and motility).

Diagnostic Impressions: Prepsychotic condition; organic involvement of nonfocal sort cannot be ruled out but erratic quality of performance and at least average abilities in fine motor and perceptual spheres render psychopathological causation most likely.

Recommendations: Treatment of mother and child mandatory.

Neurological and General Physical Examination

November 1974 (Age of child: 4 years 8 months)

Physical Exam: Summary. Height and weight exceed 97th percentile for age. Multiple skin bruises; no pathology. "Good physical exam."

Neurological Exam: Summary. No evidence of gross neurological deficit. Fine motor skills seem intact and age adequate but more difficult to test because of inability to co-operate fully.

General Observations: Behavior characterized by impulsivity and impatience. Speech has improved (e.g., clearer articulation, decreased echolalia) suggesting "excellent" response to psychotherapy. (At this point, child had been in treatment for 4 months. Improvement in speech probably reflected progress made during year at day care center as well as in treatment.)

Psychological Testing, Second Administration

February 1975 (Age of child: 4 years 11 months)

Findings

1.Q.: WPPSI.

	<u>Subtests</u>	<u>Range</u>
Verbal:	Vocabulary	Borderline
	Similarities	Defective*
Performance:	Mazes	Borderline
	Block Design	Borderline

*Given that items were passed beyond cut-off point, defective score considered misleading.

Unevenness of performance reflects variable ego functioning.

Object Relations: Heart warming friendliness upon introduction to examiner; smiles and readily accompanies him; yet seeming relatedness contrasts sharply with avoidance of eye contact and with frequent withdrawal from contact. Only sometimes responsive to interventions. Disparity suggests progress in context of extensive pathology.

Ego Functioning

Reality Testing: Rorschach percepts attest to essentially good reality contact. (Note, however, "General Characteristics" of Ego Functioning below.)

Defense Mechanisms: Defensive regression from higher level functioning (e.g., obliterates drawing productions with agitated pencil strokes).

Defensive withdrawal from contact.

Cognitive Functions

Thought Processes: Disordered thinking evidenced in drive intrusions (e.g.: Q. Boys grow up to men, girls to be.... A. "Mad."); loose, associative responses (e.g.: Q. In what way are coat and sweater alike? A. "It is cold."); fluidity, confusion, and "sticky" perseveration (e.g.: sometimes responds to an item with answer to previous item).

Symbolic Functions

Language: Speech has "breathy," "sing-song" quality.

Comprehension of instructions at times minimal.

Sight Reading at 2.2 grade level; correct recognition and labelling of entire alphabet.

Ability to spell and write name, though with peculiarities.

Body Image: Figure drawings fairly well drawn, with wealth of details, at or near age level, suggests brightness; yet bizarre and agitated quality probably reflects aggressive and bodily concerns that bespeak extensive pathology.

Attention and Concentration: Highly variable; fluctuations in ability to maintain task orientation (possibly due also to variability of object relatedness).

Motoric Functions: Peculiar gross motor coordination (e.g., peculiar walk).

Visual-Motor Functions: Bender productions evidence ability to perceive and reproduce rough gestalt and construct simple (90°) angles.

General Characteristics: Variability of ego functioning and fluidity of thought cause rapid shifts in ego states.

Diagnostic Impressions: Despite confusion, bizarreness and disordered thinking, core of strength and established developmental accomplishments. Speculation that regressive defensive aspects as well as areas of healthy ego development are more consistent with schizophrenic picture than with emergence from autism.

Psychological Testing, Third Administration

October 1977 (Age of child: 7 years 8 months)

Findings

I.Q.: WISC-R.

	<u>I.Q.</u>	<u>Range of Scaled Subtest Scores</u>
Full Scale	86	
Verbal	77	1 (lowest) to 11 (Average)
Performance	100	6 (below average) to 14 (superior)

Given extreme scatter of subtest scores, Full Scale I.Q. of 86 in Low Average range misleading as estimate of either current or potential intellectual functioning.

Academic Achievement: WRAT.

	<u>Grade Level</u>	<u>Percentile</u>
Reading	4.2	98th
Spelling	2.7	68th
Arithmetic	1.9	21st

Reading: 4.2 represents grade level for sight reading of individual words; reading comprehension (not formally tested) considerably lower.

Spelling: Phonic attack skills evident.

Arithmetic: Considerable difficulty with arithmetic concepts creates need for concrete aids.

General availability for rote learning evidenced.

Neurological Findings

"Soft signs" evidenced:

--mixed laterality (left eye, right hand and foot).

--motoric stiffness and developmental lags.

--inability to perform rapid alternating movements with both hands together.

--considerable overflow from each hand to the other.

Central language processing deficit.

Object Relations: Peculiar, primitive and stereotyped manner of interacting. Considerable difficulty understanding and participating in social interactions. In contrast with second psychological testing, however, eye contact seems improved and withdrawal or "tuning out" diminished.

Inability to establish and relate to "selfness" of other person.

Fluctuating levels of relatedness and of awareness of other person.

Egocentricity (decreasing but still salient) manifested in verbalizations reflecting assumption that other person knows referents.

Sense of self largely dependent on fairly primitive body-ego schematicization. Individuated functioning not adequately attained.

Incomplete establishment of "object constancy" (unified mental representations of "objects" lack-

ing), though libidinal object permanence and capacity to tolerate separation achieved.

Ego Functioning

Reality Testing: Intactness evidenced by adequate and conventional (though unelaborated and perseverative) Rorschach responses.

Defense Mechanisms: Coping mechanisms as yet characterized by rote, rigid patterns.

Potential for some relatively adaptive obsessive and compulsive defenses.

Beginning capacity for displacement and sublimation, resulting from beginning appearance of symbolic expression.

Anxiety manifested in appropriate affect (e.g., laughter). Lacks genuine integration of affect with intellect or of fantasy with communicable forms.

Cognitive Functions

Thought Processes: Confusion on tasks requiring complex thinking. No evidence of loose associations, fluidity or drive intrusions. (Cf. psychological testing, second administration.)

Symbolic Functions

Language and related conceptual processes: Area of most severe intellectual impairment; adequate performance when one or several associations suffice and level of conceptual thought required is concrete; conditional, modifying and complex questions and reasoning exceed capabilities.

Expressive language: Primitivity of speech; difficulty finding words for self-expression; unusual quality of speech--slightly rigid intonation patterns; thickness and unclarity of articulation; peculiar verbalizations including remnants of stereotyped expressions and possibly some T.V. phrases; several confusions, possibly resulting from clang associations; grammatical errors in pronouns and verb tenses.

Receptive language: Difficulty processing verbal input with any complexity in sentence structure.

Language deficit reflects and contributes to very fragmented internal experience.

Attention and Concentration: Despite short attention span and difficulty sustaining concentration, continuous reminders and encouragement not required; task orientation maintained and steady work performed for as long as 90 minutes (cf. psychological testing, second administration).

Planning: Utilizes trial and error approach to problem solving.

Motoric Functions: (Cf. Neurological Findings)

Gross motor movements awkward.

Deficient sense of body space.

Restlessness and motoric discharge fairly well-contained (e.g., wiggling in seat). (Cf. psychological testing, first administration.)

Fine motor coordination intact.

Perceptual Functions: Perceptual apparatus appears intact.

Visual discrimination average.

Average ability to search a gestalt for detail.

Difficulty with visual spatial organization and integration (integration of parts into whole).

Visual-Motor Functions: Visual-motor integrative capacities best utilized on rote tasks with maximum structure.

Drive Development: Concern about heterosexual interaction and various forms of aggressive impulse expression.

Minimal capacity for working through such issues given limitations of thought processes and object relations.

Diagnostic Impression: Although differential diagnosis between severe infantile psychosis with resultant ego deficits and primary organic impairment with resultant psychotic object relatedness and ego functioning has always been issue in child's clinical picture, now, as psychopathology is somewhat diminished as result of treatment, increasing evidence for underlying CNS impairment resulting in central language processing deficit. Formerly frank psychotic psychopathology has been remediated considerably in years of psychotherapy and present picture is one of serious but largely nonpsychotic deviations in ego functioning and object relatedness. Much which remains primitive about functioning, and sometimes coping is at expense of flexibility and differentiation. Nonetheless, optimistic signs at present include beginning crystallization of internal conflict, beginning capacity for symbolic expression, improvement in social interaction, and dawning working sense of self and other.

Recommendations: Needs continuing special help of educational, psychotherapeutic, and probably social nature as well.

Prognosis: With continued psychotherapy and other supports, prognosis for eventual functioning in work and social settings guardedly optimistic. Next few years important for possible development of communicative and cognitive-affective integrative capacities and avoidance of truly peculiar style and personality organization.

APPENDIX C

Identifying Information

Date: June 1980

Patient: Name: L. M.

Age: 10 years 3 months

School: Special board of education program

Grade: Ungraded classes

Psychiatric History

Treatment: July 1974-June 1975 (age 4-4 to 5-3; termination precipitated by therapist's departure)

November 1975-present (age 5-8 and onward; treatment with second therapist)

Diagnostic Evaluation: November 1973 (age 3-8)

Psychological Testing: November 1973 (age 3-8)
February 1975 (age 4-11)
October 1977 (age 7-8)

Neurological Evaluation: November 1974 (age 4-8)

Mother: Name: F. M.

Age: 32

Education: Two semesters college

Occupation: Forum Coordinator, Neighborhood Youth Diversion (program for court-referred truant children and their families)

Marital Status: Divorced and living with boyfriend

Father: Patient's biological father "disappeared" upon being told about the pregnancy. Patient's mother got married when patient was 3 years 11 months old (February 1974) but separ-

ated from husband, who had adopted patient, soon after patient turned 6 years old (spring 1976). Patient's contact with stepfather ended shortly thereafter until summer of 1979 when mother arranged for visits on alternate Sundays of each month.

Siblings: Brothers: J. M.
Age: 1 year 8 months
Sisters: None

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