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A Clinical and Phenomenological Investigation of Early Infantile Autism

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A Clinical and Phenomenological Investigation of Early Infantile Autism

An Honors Thesis Presented to The Department of Communication Arts Carroll College Helena, Montana

In Partial Fulfillment of the Requirements for Academic Honors with the Bachelor of Arts Degree in Communication Arts

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The enigma of early infantile autism has interested and yet baffled students of human behavior since it was first described by Dr. Leo Kanner in 1943. Its relationship to various conditions such as childhood schizophrenia, brain damage, primary mental retardation, and even normalcy has been probed, discussed, and debated over the years. In his first paper, Kanner differentiated autism from childhood schizophrenia, stating that "the autistic child failed to relate to people from the beginning of life while the childhood schizophrenic removed himself after a period of affective contact with people." 1 Later, Kanner (1948) he stated that infantile autism does not resemble any organic condition, that it is the earliest from of childhood schizophrenia. 2 Kanner, (1955) stated his belief that intellectual impairment in these children results from "emotional determinants." 3

From this brief overview one is able to contemplate the difficulties and confusion encountered by the label "infantile autism." In the span of ten years, one leading authority, cited above revised his operational definition substantially. Thus, it is my intent to integrate the newer knowledge of childhood autism as complete social aphasia with marked Central Nervous System disorganization. Autism comes from the Greek word "autos" meaning "self" and it is a "specific syndrome of organic brain disease characterized by basic inability to transform auditory experience into the meaningful patterns for understanding the surrounding world." 4 The resulting communication problems, behavior abnormalities, learning difficulties and emotional dilemmas lead to secondary handicaps with disturbed family relationships. All of these disorders have a common denominator
based on man's ability to be autistic. Each case of childhood autism poses an individual problem in which all factors derived from the neurological status, emotional reactions, and social needs must be examined before an appropriate training and educational program can be designed. The search for a simplified procedure or a universally applicable formula is fruitless because no generalized approach applies to such an individualized syndrome. There is only one diagnosis but many forms of therapy. The problems of autistic children are always the same but the solutions differ with each child. It will be these two aspects then, the problems and the solutions, which I will direct myself in the following pages.

At this time, I would like to express my appreciation to my readers, Dr. John Ward and Mr. Bill Huber, for their criticisms and assistance. I wish to acknowledge my deep gratitude to my thesis director, Mr. Harry Smith, not only for his encouragement in the writing of this thesis but for the support and friendship he has given me these past three years. Finally, words would be inadequate to express the gratefulness I feel toward my parents and my brothers and sisters, for their constant support and encouragement, to Terry, for all the time and effort spent proof-reading, and especially to David whose comfort and guidance I could not have been without.
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Chapter I

Behavior of the Autistic Child

The study of the autistic child is like the pursuit of one's shadow. It moves each time one moves, and changes shape from moment to moment. Current research has cast a new shadow on the autistic child, whose behavior has been illuminated with clinical facts and scientific theories. "But we see only what we look for, and we look for only what we know." 5

The autistic child has been known to doctors of all races and populations under various designations but the only absolute which has remained for all times and all countries is the impossibility of integrating the autistic child into society. Throughout history there has been concern for the welfare of the child, but only dim awareness that some of his disabilities arise from an inner discontent of his emotional self. A history of the disorder deals therefore, with changing conceptions of the causes of autism which guide the management of the afflicted child.

The causes of childhood autism are not only multiple they are also intermingled. Most causes, even some multifaceted genetic conditions, occur in a continuum of intensities, and so do the effects: But mild causes do not always produce mild effects. Whatever the intensity of a cause, the effect depends largely on thresholds, repair processes and functional compensation, which in turn depend upon other interacting and contributing causes. However, for purposes of prevention or treatment causes may be considered in isolation.

The concept of autism was first introduced to designate the turning away from everyday reality into a fantasy world of archaic imagery. Autism was considered "a disturbance of consciousness with detachment from reality to make way for a predominance of the inner life." 6 Withdrawn behavior
leads to the silence which prevails in the autist. It has its roots in the autistic pleasures of infancy, intensified by deprivation of pleasure in the relationship to the few demands made upon the child who lives in a rich fantasy life involving both destructive activity and pleasurable indulgence. Parents can't seem to get close to their child, for nothing said or done affects them, yet they are considered good children. The superego seems to be only a reflection of those in their midst at the time, but the standards for realistic behavior change from the good to bad to indifferent as subtly as a chameleon changes his color.

The first description of "autism" was published in 1943 by Leo Kanner, then director of the Child Psychiatry Clinic at John Hopkins Hospital. His paper, titled "Autistic Disturbances of Affective Contact" was based upon the characteristics of eleven children whom he had seen at the clinic. Children with aloof, withdrawn personalities, living in inaccessible dream worlds isolated, by choice, from contact with others. The pathognomonic disorder was seen as "the children's inability to relate themselves in the ordinary way, to people and to situations from the beginning of life." 7 The extreme nature of their detachment from human relationships separated the appearance and behavior of these children in a fundamental fashion from other known behavioral disturbances. He stated:

The characteristic features consist of profound withdrawal from contact with people on obsessive desire for the preservation of sameness, a skillful relation to objects, the retention of an intelligent and pensive physiognomy, and either mutism or the kind of language that does not seem intended to serve the purpose of interpersonal communication.

"This behavior differs from ordinary obsessive ritualism in one significant respect. The autistic child forces the people in his world to be ever more obsessive than he is himself. While he may make occasional concessions, he does not grant this privilege to others. He is a stern and unrelenting judge and critic. When one watches
such a child for any length of time, it becomes evident that, unless he is completely alone, most of his activities go into the job of serious, solemn sacerdotal enforcement of the maintainence of sameness, of absolute identity."

After establishing infantile autism as a diagnostic entity, Kanner concluded:

"We must, then assume that these children have come into the world with innate inability to form the usual, biologically provided affective contact with people, just as other children come into the world with innate physical or intellectual handicap. If this assumption is correct a further study of our children may help to furnish concrete criteria regarding the still diffuse notions about the constitutional components of emotional reactivity. For here we seem to have pure-culture examples of inborn autistic disturbance of affective contact." 

The first characteristic which Kanner referred to, extreme autistic aloneness, was discerned from the almost universal report by parents that these children, as infants, had failed to assume an anticipatory posture before being picked up. Also they never displayed the plastic molding which the normal child shows when cradled in his parent's arms. Initially pleased by the child's "goodness" - that is, their ability to occupy themselves for long periods without requiring attention - parents later become distressed by the persistence of this self-isolation and by their observation that their own coming or going seemed a matter of complete indifference to the child.

The second characteristic, described as "an obsessive desire for the maintainence of sameness" results in a marked limitation in the variety of spontaneous activity. Regularly displaying fear of new patterns of activity these children, "once having accepted a new pattern, would incorporate it into the restricted set of rituals which then had to be endlessly iterated." Thus, a walk had always to follow the same prescribed course, bedtime to consist of a particular ritual of
words and actions. Any attempt to interfere with the pattern would produce bursts of rage and episodes of acute panic.

Thirdly, as distinct from the poor or absent relation to persons there could be detected a fascination for objects which were handled with skill in fine motor movements. So intense was this relationship that "minor alterations in objects or their arrangement, not ordinarily perceived by the average observer, were at once apparent to these children who might then fly into a rage until the change had been undone whereupon tranquility was restored."

Fourthly, it was argued that these children had "good cognitive potentialities." In the speaking group of children, this could be perceived in the extraordinary, if perverted, use of language manifesting feats of unusual memory. In the mute children, "this was concluded, though with confidence, from their facility with performance tests at or above their age level." 12

Finally, a fifth distinctive feature was noted as the failure to use language for the purpose of communication. In Kanner's eleven cases, three failed to develop speech altogether. The remaining eight rapidly developed a precocity of articulation which coupled with unusual facility in rote memory, resulted in the ability to repeat endless numbers of rhymes catechism, lists of names, and other communicatively useless exercises. The parroting of words intellectually incomprehensible to the child brought into sharp relief the gross failure to use speech to convey meaning or feeling to others. The repetition of stored phrases, while failing to recombine words into original and personalized sentences gave rise to the phenomena of delayed echolalea pronominal reversal, literalness, and
Thus, a syndrome had been delineated which was differentiated from childhood schizophrenia by virtue of detachment present no later than the first year of life, and from oligophrenia, or brain damage by the evidence of good intellectual potentialities. Physical examination failed to reveal any consistent organic abnormality that could be related to the clinical picture. Family background was striking in the universal presence of high intelligence, marked obsessiveness, and coldness. But the extreme aloneness present from the beginning of life led to the tentative conclusion that this group of children comprised "pure-cultural examples of inborn autistic disturbances of affective contact." 14

Although Kanner differentiated autism from childhood schizophrenia by age of onset, there are other variables unique to the personality of an autistic child. It can be said that "the human personality develops in predetermined stages of body readiness for interpersonal relationships." 15 The environment encourages these potentials for interaction and safeguards the proper rate and orderly sequence of their unfolding. Each critical function is related to all others and all depend on the proper development in the orderly sequence of each behavior. Each exists in some form before its crucial time normally arrives, comes to its ascendancy and meets its effective time for action. Functional failure remains the dynamic counterpart of the positive achievements. The epigenetic principle applies to the functional as well as the structural growth of the organism for they are the two sides of the same coin. Each component has its time of specific ascendancy until all parts rise to form a functioning whole. The arrest of any part tends to suppress development and modify other structures and functions. The resulting disharmony can "behave morphologically to alter
body structures; or biochemically to affect body functions or clinically to produce the manifestations of illness. The child responds with a spectrum of physical, mental, emotional and social reactions determined by their personal pattern of behavior. The physical behavior reflects the caliber of the steady state in their internal environment; the mental behavior, the capacity for control of their body systems; the emotional behavior, the degree of dynamic equilibrium between stimulus and response and the social behavior the intensity of his interpersonal relations.

**Physical Behavior**

"The normal child is fearfully and wonderfully made to be and to do according to their hereditary nature with all manner of sustenance provided by the environment." The human equation of harmony represents basic needs plus fulfillment and adjustment, while that of disharmony reflects living needs minus fulfillment plus adjustment. Every newborn needs special loving, personal care; at every stage the child needs parental stimulation and protection in order to maintain equilibrium with the changing environment.

"Every living moment is a process of accommodating the changing self to the changing surroundings." Thus, the success of one's life is dependent upon the power of accommodation to the stress of fusing internal and external changes in its psychometabolism.

"The autist is in perceptual disharmony deficient in the internal mechanisms that signal essential needs and in the external conditions that provide optimal nurture." The range and degree of each biological deficiency vary with each child. Some have to learn to nurse, some to eat, and drink. Others have to learn to eliminate, to make known their urgent needs, or perhaps to take notice - to cultivate the power
of imitation. Some must learn to feel pleasure or pain - to become intimate, to ward off danger or even to test their powers for discerning uses. All autists, must learn to rise above their limitations. Rimland (1964) found all autists oblivious of their body image and body parts, all are alienated from their bodies in both form and function all are arrested in the early ways of experiencing the world and themselves. Some exhibit these modes of perceiving people and things at the very onset of the autistic process.

The normal child further reveals a vital balance of ceaseless transactions between body and brain maintained by regulatory mechanisms. The body thus "achieves a relative degree of cybernetic constancy despite progression to different levels of organization in continuous adjustment to environmental changes." 21 The most elegant control system man has, is the brain. It is capable of altering the environment to fit biological needs and adapts the body to the environment to fulfill living needs.

The autist is evaluated in relation to the overall functioning in his environment. Needs, urges and impulses must be coordinated for the integrated behavior necessary and sufficient for his adaptation to the conditions of reality. The autist fails in his own satisfactions and his relationships with the outer world from early infancy. The internal integrations designed to manage his affairs begin to wane. Integration in the total sense implies methods of self-regulation for the maintenance of the vital balance. It gives the feeling of confidence about security which engenders self-esteem.

The autist lacks the self-esteem necessary to deal with the realistic feeling of helplessness in interpersonal activities. It takes innate vigilance for the first level of altering responses or inner tensions to achieve adaptation for security. Autistic failure to exercise vigilance
is the face of real or imagined ego danger leads to residual alerting responses of anxiety that reduce contact with the world. "A vicious cycle develops where the anxiety leads to retreat from reality and retreat to greater anxiety with more permanent withdrawal." 22 Intensive feelings of anxiety overwhelm the child with panic that suppresses all feelings of hostility to the world. The world remains frightening, reality unreasonable, and so the only protection is doing nothing. The child cannot be provoked into action with an insensitivity to all stimuli-external and internal. "The shortest answer is doing - but the autistic child does not answer." 23

**Mental Behavior**

The normal child develops communicative behavior according to genetic, social, and psychological determinants. Genetic determinants embody the organs of communication; social determinants, the people by whom he is surrounded; and the psychological determinants, the manner in which his experience influences his adaptation. 24 The structure of language is the first logical system mastered as the prototype of abstract cognitive structures to follow.

The innate system of communication in the neocortex controls the thinking and speech, alertness and attentiveness adjustment and adaptation. It operates like a computer for data processing and problem-solving but must have language for programming. Miller (1967) described the autochthonous transformation at the preverbal level in terms of "a power factor for arousal in approaching a task manifested as curiosity and interest; a directional factor for input and output to attain the desired information; an abstraction factor to organize a group of objects at a prelinguistic level; and a memory factor to transform experience into non-specific memory traces scanned for new information." 25
The autist reveals autochonous dysfunction due to defective development or delayed maturation. It is accompanied by disordered cognition that affects all behavior patterns. Language, in particular, is the currency of cognition, the structure of language determining the structure of thought. "Language as expression relates to having; as signal to doing; as symbol, to being." 26 All these language forms are either absent or delayed in appearance in the autist, hence the inability to handle these concepts. The delay in saying "I" parallels the lack of ego development. The absence of "I" from his world implies the non-existence of his person in encounters with others. It is a language that exemplifies "the depersonalized type of static existence of the autist comparable to the impersonal cry of the infant." 27

The normal child is a thinking being - learning, remembering, and knowing; day-dreaming, reflecting and imagining, perceiving, creating, problem-solving. All involve, according to Dingham (1964), "the organization and application of symbols, words, images, or gestures or subjective representations of an object or situation whose meaning depends upon the child's past experience." 28 The power to see symbols derives from the use of language and the information acquired is organized into patterns or concepts. The child's capacity for learning and memory improves the use of symbols in language, and metalanguage. The mind can represent things and the relation between them in a world of its own in the absence of the things for which the symbols stand. Brain development thus, increases the range and scope of perception to enhance the control of the environment.

The autist has varying degrees of disorganized thinking but thinks at unusually levels in certain facets that reflect inherent gifts. Nevertheless autistic thinking reveals decreased concept capacity or abstraction deficiency. The child is engrossed in his concrete environment concentrating on what he can feel, touch, smell, and taste. He has no interest in the
abstract, the distant, the unknown until he gains some comprehension of the world. The autist may talk to himself, to imaginary individuals and to others in the a private language none can understand. It enables them to acquire symbolic concepts to generalize from the particular, and to develop the ability to reason. "But if his use of private language is forsaken for fear of its consequences before age three or four years, he will fail to develop higher intellectual processes." 29

Emotional Behavior

"All emotion emanates from brain activity: the autonomic nervous system and the endocrine system are but message transmitters for emotional expression. Every pattern of behavior reflects how one feels, be it real or virtual, expressed or inhibited. Feelings are given us to express or inhibit behavior in reaction to some experience." 30 Feelings in infancy reflect satisfaction or frustration of biological needs, and those in childhood release individualized, biological, psychological, and social patterns.

The newborn uses excitement to signal that something is wrong. The negative affect of distress or irritability is complemented by a positive affect of silence or sleep with no direct relationship between stimulus and response because of lack of neocortical development. The first social response appears when the three-month infant smiles at a person whose eyes, nose and forehead move towards him. The second social response follows the instinctual musculoskeletal pattern of the sucking instinct when he turns toward persons with a smile. The three-month infant shows voluntary motor behavior with eye-hand coordination as an ego manifestation. The four-month infant develops the first negative affect upon the withdrawal
of persons who minister to his needs. The eight-month infant with neo-
cortical development creates anxiety at the sight of a stranger and fear
of separation from the mother. "It is a psychosocial defensive maneuver
to maintain a dynamic steady state despite sudden spurts, long plateaus,
and transient regression in emotional development." 31

The autist is devoid of emotion, irresponsible to sensory stimulation
yet buttressed with indifference. "...But this superficial invincible
state belies his deep-seated affective ambivalence towards others." 32

There is a duality in relationship, positive and negative, but reversible
involving a mixture of attraction and repulsion, attachment and avoidance,
love and hate. Such dual behavior seems isolated as constructed but the
extremes meet and fuse somewhere on a continuum that extends from the most
positive at one end to the most negative at the other. Kanner, (1943)
placed the autist at the negative pole "without any semblance of hatred
and no irreversible indifference to his plight." 33 Once conditions are
ripe for reversibility, blind hatred emerges first, usually against himself,
manifested in attempts at self-destruction. "To love is to surrender but
to hate is to carry on as a sublime force in life." 34 There is no sub-
stitute for human relations since attachment to things is not as meaningful.
But the mute autist withdraws completely from the world of persons for safety.

The normal child shows the first glistening of selfhood with the
sudden emergence of self-awareness from sensory stimuli, visceral activities
and muscular movements. Bodily self-concept begins by separating the object
of the body from the objects of the external world. The child's image of
himself begins to form by the end of the second year and expands rapidly
from the third year onward via interpersonal relations during biological
maturation and psychosocial growth.
The autist declines in self-concept, losing self-control and self-expression. "He becomes an automation with a sense of isolation from all persons." 35 Their fantasy becomes stereotyped, his sensations vague, their self colorless. "Self concepts do not develop nor are they sustained unless the child participates with other persons in a perpendicular rather than parallel manner." 36 The individual who does not have a sound basis of human experience is an infant, and the child will never develop adequate self-concepts. If he does not maintain human relations, he will never sustain the self-concept already developed.

In addition to a deficient self-concept, the autist also reveals discolored concepts of interpersonal relations. They struggle with outer and inner reality with nothing permanent to grasp, nothing they can accept, nothing to give them security, nothing to provide reassurance. They are overwhelmed with anxiety about the world as a menacing force. They fail to develop reality concepts in progressive stages: physical reality concepts during the first two years and psychosocial reality concepts during childhood.

Reality is not an exclusive external because autistic children create their own world.
Footnotes

Preface


Chapter 1


7 Kanner (1943). op. cit., p. 29.


9 Ibid., p. 387.

10 Alpern, op. cit., p. 19.

11 Kugelmass, op. cit., p. 31.

12 Ibid., p. 33.

13 Kanner (1943), op. cit., p. 12.


16 Ibid., p. 8.


18 Ibid., p. 13.

19 "Trance Children," *op. cit.,* p. 56.


21 Ibid., p. 22.

22 Kugelmass, *op. cit.,* p. 10.

23 Ibid., p. 10.

24 Hamblen, *op. cit.,* p. 82.


29 Miller, *op. cit.,* p. 18.

31 Ibid., p. 444.


33 Kanner, (1943), op.cit., p. 231.


36 Ibid., p. 37.
Chapter II
Assessment of the Autistic Child

Autist Diagnosis

Despite all the research on infantile autism which has been conducted since Kanner first described and named the syndrome no underlying pathology as yet has been established. There is no physical or pathological tests which can confirm the diagnosis. The syndrome can be defined only be describing a pattern of abnormal behavior, but there is no certainty concerning which of the elements making up the behavior pattern are of primary importance, although some formulations of the problem have more practical relevance than others. These difficulties are fundamental to the understanding of the following chapter.

Clinical diagnosis of behavior disorders is based on qualitative criteria. There are few sharply defined states but many continuums ranging from mild aberration to manifest deviation. What was thought to be rare two decades ago in now diagnosed with increasing frequency. Some of the behavioral problems can be perceived by knowledge, some by experience, and some, by understanding, but the application of these three concepts merges into clinical practice these problems are of peripheral interest only. Research workers can legitimately concern themselves with defining Kanner's nuclear syndrome and exclude from their studies all children who do not fit the definition. Clinicians, on the other hand, cannot refuse to see those who do not fit neatly into categories.

Nevertheless, from diagnosis, the thinking goes chronologically backward to decide about pathogenesis and etiology, but it also goes forward
to attribute prognosis and to chose therapy. There is no short cut to developmental diagnosis and no place for spot diagnosis. When prescribing education, management and treatment for children with chronic handicaps which affect learning and behavior, including early childhood autism, a number of different aspects of functioning have to be taken into account. Each infant can be assessed only on the basis of the history, physical and developmental examination. "A diagnostic formulation should not therefore, consist of a single label but should be multi-dimensional." 37

The following points should be covered:

1.) The pattern of behavior
2.) The child's level of ability, including:
   (a) Language development and abnormalities
   (b) Performance on cognitive (intelligence) tests
   (c) Perceptual function
   (d) Any special skills
   (e) Self care
   (f) Practical competence.
3.) Any associated neurological handicaps.
4.) Any other physical handicaps.
5.) The underlying etiology and pathology, if known.
6.) The child's social and emotional environment.

The autistic pattern of behavior is seen most clearly and in its most severe form between the ages of two to five years. Between five and six years some children show quite a marked improvement or a change in the details of their pattern of behavior. In essence the phenomenon of childhood autism is extensive, embodying diverse clinical pictures of remarkable inequalities and aberrant patterns of behavior.

The apparent heterogeneity presents features which appear in various forms but which are more or less common for the group as a whole. Actually,
the signs and symptoms are delineated by "total inability to socialize bizarre non-communicative speech, extreme resistance to change. There is an inherent inability to develop symbolic thinking and a characteristic distortion of object relations." An autist may present a variety of problems, any one of which may be seen in the ascendency at one time and another at another time, but all of which are interrelated and interdependent.

The onset is usually soon after birth aberrant behavior is not readily discernible until marked deviations become apparent to the reluctant parental observer. Extreme difficulty is then encountered in the daily care of the child so medical help is sought. The infant's first signs of autism are failure to take up an anticipatory posture prior to being picked up and resistance to any form of cuddling. The young child shows no eye-to-eye gaze; absence of speech development; aggression; temper tantrums; physical withdrawal; and eating and sleeping disturbances. The toddler reveals aloof indifference failure to joint group activities, self-centered injury, ritualistic compulsive behavior and learning difficulties. The older child fails to make friends; plays parallel, not perpendicular with peers; lacks social know-how in the absence of sympathy or empathy. The adolescent appears sluggish, devoid of drive, remains retarded in learning, persists in ritual compulsions and fails in all social relationships. Autists reveal a consistent pattern of bizarre behavior of innate origin, irrespective of precipitating factors.

Gradual modification in autistic behavior from marked autism in infancy to paranormal behavior at age six is evaluated in terms of "growth" in personal relationships, communication ability, environmental mastery, and instinctual urges." The nature and degree of relationship to an adult is
Judged in terms of obliviousness to people. At first the child looks right through a person as if they were not there or used part of them as a tool for their own needs. Gradually, there is a transition from continuous imperviousness with residual resistiveness. The autist turns away, looks past the person's face, or shifts their gaze to maintain a tangential position. Any attempt at physical proximity may trigger tantrums or rage. The autist gradually accedes to the comings and goings of familiar adults by playful gestures, "for his response becomes more sustained in a variety of moods and situations, with greater interest in one person for comfort, play and approval." Eventually they anticipate approval and disapproval, share experiences, see mutuality and follow directions with pride in achievement. Finally, they respond to another adult attempting to please without any personal advantage.

Communicative development progresses from primitive needs towards increasingly complex expressions. It takes a considerable degree of sensitivity for a participant to contribute to the child's progress and interpret their behavior without promoting communication. The autist awaits relief from distress with primitive expectation of help, without seeking it from any sources. In due time, they direct their requests for help towards a specific person with hints as to the cause of their difficulty. Once the need is satisfied there is unmistakable evidence of satisfaction for the first time. The child thus develops a clearer concept of their needs and of the person to fulfill them. The resulting gratification directs attention to self and extends the approach to use others for their needs. The autist "begins to communicate his feelings about his very self and the environment, his memories about the past, his reactions about the present and his ideas about the future." Instinctual urges reveal a preoral state of development "with discharge of tension through rhythmic activities, kinesthetic sensations and body
surface feelings without any focus on the oral one so dominant in the normal child. Ego modifications fail to appear until after the sixth year with gradual emergence from the autistic state. Autistic time is elastic, "internal forces expanding it, environmental forces contracting it and self-limited mechanism filling up what remains to bring the autist out of his shell." 43 Eventually, about five percent make a good interpersonal adjustment at maturity; twenty percent lead independent adult lives but remain shy and tense, the remaining seventy-five percent resemble withdrawn schizophrenics free from delusions and hallucinations." 44

The sixth year of life is not necessarily marked by this gradual behavior modification described above but rather acts as a transition as the waning manifestations of childhood autism merge with other clinical entities, especially primary amentia, organic brain disease and schizophrenia. If speech has not developed by this time the autistic child becomes indistinguishable from the ament or brain damaged child. The non-communicative autist preserves all the initial features of the disorder, but if language develops by age six, his language capacity may be rudimentary, "with communication concrete, affect flat, and abstract thought nil." 45

Another type of transition leads to schizophrenia in the school years or in early adolescence with marked disorganization of the personality completely out of contact with reality. "The language pattern reveals fragmented association from tangential thinking devoid of social contact accompanied by illusory or hallucinatory thoughts with a distorted fantasy life elaborated around some of the early childhood behaviors." 46 But normal development may evolve from the schizophrenic stage or follow directly from the autistic syndrome. The personality appears relatively normal "tinged with emotional, neurotic and character defects; colored by residuals of the autistic syndrome
with absence of empathy, judgement and discrimination for excess preoccupation with mechanical things displaces more productive interest in human relations." 47

The prevalence of childhood autism is not clearly established but parallels that of other varieties of childhood handicaps. One child in every 1500 births is probably afflicted. Birth order favors the first-born since the second half of the family appears affected. If the first-born is affected, there is a tendency to have at least one more child in the hope that it will be normal but if an autist is born at a late stage there will be less incentive to have more children. The increased risk of damage to the first, fifth and subsequent births explains some of these observations. "Childhood autism is inborn in the progeny of intelligent parents from every socio-economic class whether cold and calculating, warm and affectionate, schizophrenic or normal; whether the home atmosphere is harmonious or discordant." 48

Pregnancy and delivery are usually normal with no prenatal or perinatal complications, but the newborn affected reveals unusual behavior from the moment of birth without apparent physical or neurological defect. Autism predominates in boys in the ratio of 4:1 because of the greater male vulnerability to interuterine organic damage. 49 Identical twins are affected by this disorder with a predominance of monozygotic (identical) over dizygotic (fraternal). 50

The mother-infant relationship during the first three months of life is a normal phase of autism when the newborn is unresponsive to people and things. He senses no distinction between inner and outer reality, between himself and the inanimate surrounding. "He is an immature biological organism with instinctual responses to stimuli on a reflex and thalamic rather than a cortical level." 51 The psychobiological rapport between mother and baby creates maternal empathy rather than the maternal instincts upon which
survival depends. As the infant progresses to the symbiotic phase, he becomes dimly aware that painful cycles of body tension come from within and that relief of instinctual tensions come from without.

"The core of autism is vested in distortions of the symbiotic phase of development that deprives the infant of emotional warmth and/or physical satisfaction either from total unavailability or over-presence of the mother." 52

The essence of autism is withdrawal or noninvolvement, a prominent symptom in a variety of psychoses in children that may be primary and endogenous or secondary and exogenous. The heterogeneity of behavior aberrations makes it difficult to delineate them as distinct clinical entities, for every child is really a special syndrome of his own. But there are some common groups of psychoses to be differentiated from childhood autism, depending upon the degree of ego impairment and the available ego defense system. A scale of these psychotic disorders places primary autism at one end and severe schizophrenia at the other "with marked diversity in clinical pictures, as a result of minimum ego development, fragmented ego development, or discordant ego development." 53 Childhood autism has been established as a single diagnostic entity with a wide range of biological, psychological and social characteristics. The process is "the classical syndrome distinct from the reactive forms of the disease, all endpoints on a continuum of lesser to greater pathology." 54

The question then arises as to whether these groups of psychotic children are suffering from different degrees of severity of the same underlying disorder or are they afflicted with different conditions of different causes. From the research currently available there seems to be a concensus of opinion that the three categories of childhood psychosis (infantile autism, symbiotic psychoses and childhood pseudo psychosis) are all on a
continuum of the same process with varying intensities of emotional force interacting. For example, the infant with a heavy biologic predisposition and marked family psychopathy becomes autistic while another with less biologic and emotional handicap becomes a borderline psychotic. Adverse circumstances or individualized treatment shift the behavior down or up the scale from autistic to symbiotic, to the borderline state or the reverse. If each of these syndromes were really separate, such transition could not come to pass with considerable overlapping of symptoms in the three groups. "The distressed child may appear partially autistic and partially symbiotic fitting neither one category nor the other but taking a middle course." 55

"The laws of human behavior yield to the psychic energy of the autistic child in living his life all to himself." 56 Some regard autism as an organic disease of the central nervous system, some as a manifestation of mental subnormality, others as a pattern of reaction to emotional stress. Still others regard autism as schizophrenia and related childhood psychoses. Autistic phenomena are observed in defective and brain-damaged children distinct from childhood autism. The fact of autism in children and the concept of childhood autism are quite different matters. There is no precise delineation of its diverse clinical features with a multiplicity of factors blocking acceptable analysis of the underlying condition. Responsibility for the autistic child arouses severe anxiety in the family and emotional strain in his mentors, "for every aspect of childhood autism remains a subject of controversy clinically, educationally, and sociologically." 57
Chapter Two


38 Eisenberg (1948), op.cit., p. 167.


42 Miller, op.cit., p. 66.

43 Tustin, op.cit., p. 108.

44 Bosch, op.cit., p. 68.

45 Rudikoff, op.cit., p. 59.


47 Tustin, op.cit., p. 213.


51 Alpern, op.cit., p. 81.


53 Hermelin, op.cit., p. 17.
54 Ibid., p. 19.

55 Kanner (1948), op. cit., p. 50.

56 Hamblen, op. cit., p. 201.

Chapter III
Etiology of Childhood Autism

In studying the early infantile autistic behavior as a dramatic instance of sensory and affective deprivation, one is still confronted with the central issue of the source or cause of this condition. It is a nuclear syndrome, not a disease process, with disturbance of the system functions of the psychophysical organism. The autistic child reveals outer world and intra-physical relation disorders. It is an ego weakness that deprives them of a core nucleus for thinking, feeling and striving with consequent retardation in the development of ego-consciousness, the evolution of language and the differentiation of movements. Here, familial and environmental factors are significant, but none of them offer a physical explanation of the mental symptoms. There is no unequivocal histological evidence that it is a disease of the brain and no gross or microscopical abnormalities. To quote Escalona:

"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 lack in experiences, which may come about through extreme variations in either intrinsic or extrinsic determinants, or both...It (infantile autism) is caused by the absence of those vital experiences in early childhood which we regard as the necessary condition for ego synthesis." 58

The question however, as Bettelheim puts it, remains, "exactly how it comes about, in the lives of some children, that these vitally needed experiences do not occur." 59

Biogenic Theories

"The autistic child does not die; quite the contrary, his behavior continues to express in a minimal fashion a reaching out which is inherently ineffectual and sterile because it lacks affective quality." 60 The barrier to affective communication appears to be an internal one, rather
than consequent to a parental rejection. In recent years, a number of attempts have been made to understand the autistic behavior as an inborn biogenic defect and this point of view deserves consideration at this time.

In his book on early infantile autism, Rimland concludes that, "the defect in autistic children is basically a cognitive one." He traces the diversity of symptoms and manifestations of early infantile autism to a single critical disability: "The child with early infantile autism is grossly impaired in a function basic to all cognition: the ability to relate new stimuli to remembered experience." 

More recent theories speculate brain immaturity as being the causal factor. It has been proven that the brain of the human fetus exhibits receivable electrical activity by the eighth week but becomes abnormal after traumatic delivery. It is not the mere existence of electrical potentials which is significant but rather the shape of the voltage wave observed. Coordinated synchronized currents extend throughout a substantial portion of the entire brain. The typical brain wave pattern of a child thus displays the degree of his mental alertness controlled by the same kind of electric currents that regulate the muscles and glands and provide his sensations and reflexes. Walter (1964) developed an electroencephalograph (EEG) technique that reveals an expectancy wave in the frontal cortex following a warning stimulus to perform a given action. The capacity to develop this expectancy wave response is a measure of the child's maturity not observed until adolescence. Autistic children reveal immature patterns of response of young normal children, genetically determined constitutionally predisposed.
The superior frontal regions are involved not only in language but in voluntary, contingent adaptation. It has been observed that the contingent negative variation in EEG studies of normal and autistic children is the most accurate measure of brain maturity. Children under three years of age never show this effect and it takes until age 15 for half the normal children to reveal consistent brain wave patterns; even mature adolescents fail to show it unless given powerful social support or competitive motivation. Autistic children rarely show the effect even in the mid-teens and in all children with speech disorders the source of difficulty can be identified by discovering the sequence of stimulation for the brain wave production. Autistic children with absent brain wave patterns respond irregularly with delays and anticipations.

Cerebral dysrhythmia, which is a disturbance in the rhythm of the brain waves may also accompany the autistic process. It has been suggested by some that cerebral dysrhythmia may arise from a disease process in the brain which cannot be delineated from EEG tracings. The epileptic seizure in any of its forms is not a special symptom of the autistic process - it can be aborted by the will of the child through some sensory, stimulus, or by motor activity. Of particular significance is the correlation between brain wave patterns and degrees of mental alertness. Higher intellectual and emotional processes are controlled by the same kind of neuronal electric currents as those that provide sensations and reflexes. "It may well be that some of the genius manifest in the autist owes its inspiration to the uncontrolled electric discharge of small regions of the altered brain tissue responsible for the abnormal non-specific EEG's." 64

Rimland was the first to suggest, on a highly speculative basis, the brain stem reticular formation as a possible site of the organic impairment
which resulted in cognitive problems. The brain is capable of integrating the individual activities of its ten billion neurons into appropriate patterns of specific functions and control systems. It is the brain stem reticular formation which is the most important mechanism for integrating these functions, if not the central nervous system master control system. Neuron combinations mediate control visceral functions with the reticular formation, especially the arousal response motor performance and sensory signals. Functional impairment of the reticular formation of the brain leads to an inability to associate stimuli in the foreground of consciousness with the memory content instilled by previous experience. Sensory stimulation stirs impulses from the reticular formation for arousing attention, maintaining alertness and modulating the sensitivity of the receptor organs. Thus, the autistic child is behind a curtain that isolates them from all external stimulation, creating the suspicion of deafness.

Another study which implicated the reticular formation is that of Hutt & Hutt. Their hypothesis is that in children with early infantile autism non-specific activity of the reticular system is sustained at a chronically high and relatively inflexible level that is, these children are in a chronically high state of arousal. This hypothesis rests on the primary premise that electrocortical activity as recorded in an EEG is at least a reasonable acceptable reflection of arousal; and on the secondary, derivative, premises that (1) behavior withdrawal and stereotypic are associated with high states of arousal, and (2) that chronically high states of arousal produce blocking of sensory pathways.

Des Lauriers further accentuates this argument by stating, "We now understand the condition of early infantile autism in a child as the
expression and manifestation of a severe developmental deviation or as consequent to a functional imbalance between two intimately related arousal mechanisms in the brain stem of the central nervous system." 67 It must also be noted that autistic children also display unusual eye movements, bizarre food preferences, drooling, sniffing, dry-eyed, crying, creepy touching, irrelevant laughing or smiling, and self-injurious practices as hand biting and head banging. This would suggest the involvement of another area of the body other than the CNS.

In 1960, the research of Schain and Yannet lead them to theoretical speculations regarding the possible primary involvement of the limbic system in the disorder. Their speculations are based on two factors. First, the structures within the limbic system have long been thought to provide the anatomical substratum of emotional behavior. And, second, experimental seizures are far more readily induced in this area particularly in the hippocampus and amygdala than in the neocortex. Thus, in view of the primary affective deficit in autistic children, the limbic system was suggested as a potential site of dysfunction. 68

Although it is impossible to ascertain the absolute validity of these theories that"... autism is an organic rather than psychological disorder," it becomes apparent that if a child lacks the ingredients essential for total awareness of one's senses, autism may act as a defense mechanism in which the child reverts back into themselves. The child not capable of perceiving the world as a normal child would, cannot possibly manipulate successfully his environment and its subsequent pressures and conflicts.

Psychogenic Theories

"Autism is considered a deficiency disease with mothering as the inadequate, nutritive element so essential for a child's growing psyche." 69
Some clinicians stress the deep-seated effects of autism developed in the course of maternal deprivation; some, the cumulative effects of emotional trauma on the emergence of autistic psychosis; some, the subtle changes induced by psychic distance maintained by rigid parents.

Bettelheim (1967) is primarily responsible for the view that the parental environment is responsible for the fact that "vitally needed experiences do not occur," 70 in the early life of the autistic child. Basing his view on the many years of clinical experience he has accumulated in working with a variety of disturbed children, Bettelheim reached the conclusion that the autistic condition in a child is "directly consequent to the wish of the mother that this child did not exist." 71 The child, very early, senses this basic rejection by the mother and tries, in defense, to blot out what is too destructive an experience for him. In doing so, the child, his back turned on the world remains unavailable to it. In protecting himself from the destructive designs of his mother, he begins defending the "empty fortress" of his life.

Bettelheim, nevertheless, recognizes certain weaknesses in his position and concedes.

"What is difficult to know is what triggered the reaction. The more intimate the relation, the more difficult it is to know what belongs to which partner. If we assume that the investment in the mother is both intense and disappointing, then it may cause the child to turn his back on the world. That part is easy. What is much more difficult to say, at this shadowy age of the mind is what made things go so sour for the child.

"...It would be very hard to know if what goes on between the infant and his surrounding world is due to his heightened sensitivity to overstimulation, or to an absence of stimulation." 72

In choosing to resolve this dilemma by ascribing the autistic condition
to the interaction of a highly sensitive child with an extremely destructive mother, Bettelheim rejects the possibility of an organic basis to it. The absence of certain emotional experiences in infancy may thus account for the subsequent dysfunction of the reticular system and the ability to reverse the course of autism by psychotherapy counters any theory of inborn central nervous system dysfunction.

"Parents of autistic children are superior in intelligence, education, and occupation," 73 but these features do not necessarily contribute to the causation of autistic progeny. Family background and parental personality nevertheless is a significant variable within the construct of the psychogenic theories. In evaluating parental psychopathy, it has been determined that "mothers of autistic children tend to be narcissistic and either markedly reject or overprotect the child. The fathers tend to be passive and either withdraw from family management or overcompensate by domination." 74 Recognition of the psychotic child after one year of age requires prompt remedial action but mothers seem averse to any or all individualized measures formulated. The parents of autist reveal "self-involvement and narcissism whether they be intellectuals or ignoramuses, and other children appear disturbed, even if non-psychotic." 75 The autist is either born early in the marriage before the parents are ready to take on the responsibility, or born late in an unhappy marriage in the absence of affection or available time for effective care or born poorly endowed with a capacity to build an ego that will stimulate maternal response in the manner of the normal infant. Maternal inadequacies alone are not responsible for the autistic psychopathology. The same parents of autistic progeny rear normal offspring because of factors inherent in the child before psychosis develops. Ogdon (1968) found that the personality of parents of autistic
children influences the development of autism. 76

Obsessive introverted personality patterns characterize some of the parents of autistic children. Kanner (1943) emphasized disturbed infant relating to the environment, correlating coldness, aloofness, and withdrawal with analogous behavior in both parents and grandparents. 77 An innate family tendency stresses intellectuality at the expense of emotionality. Eisenberg (1956) considered, the children to be emotionally refrigerated because they were raised in such an environment, hence family genes were displaced by faulty parents. 78 Not all parents fit this stereotype, however, and the controversy remains as to whether parental behavior contributes to the autism or life with a severely disturbed child leads parent withdrawal from emotional involvement. The effects are deep-seated since the parents reveal marked feelings, of guilt relating the child's autism to themselves as if they were at fault, always conveying the impression of unconscious identification with the sick child. The home environment of the autist may thus provide excessive or deficient stimulation depriving him of vital experiences essential for ego synthesis. The question remains whether it is the mother's or child's inability to respond to one another. Clearly, the interaction is abnormal.

Biochemical Theories

"The study of biochemical, pharmacological and physiological aspects of psychoses since the turn of the century led to conflicting results in the absence of any rational hypothesis of an underlying mechanism. " 79 Nevertheless, a postulated biochemical lesion is sought to explain metabolic defects and psychotomimetic effects in childhood psychoses. A biochemical
etiology implies that there are certain chemical changes in the brain which have to be restored to normal before the child's clinical condition will improve. This theory, however, does not intend to negate the psychological or social disturbance that may maintain, intensify or precipitate the abnormalities that confound the biological picture.

The biochemical basis of mental disease has several origins. The tranquilizing drugs advance the therapeutic armamentarium without altering the defects in the mental disorder. The metabolic errors localized in enzyme systems delineate molecular diseases with mental manifestations that may be reversible. The toxic protein, tarexen, circulating in the blood stream, attributed to the psychotic symptomatology, may be removed by exchange transfusions with temporary improvement. The serotonin effect on mental mechanisms remain obscure with respect to psychotic manifestations. Abnormalities in plasma proteins and disturbances in ament metabolism suggest an association with some form of psychosis.

In an earlier discussion, it was formulated that childhood autism emerges as a clinical component of the schizophrenic complex "with characteristic features crystallized into a specific syndrome of comparable biochemical properties." 81 It has been proven the schizophrenic symptoms are due to the presence of hallucinogenic derivatives of epinephrine, i.e. adrenochrome or adrenolutin. Some adrenalin in tissues is normally converted into adrenochrome "but in schizophrenics it is converted into adrenolutin," 82 both are well known mitotic poisons. The plasma protein fractions from schizophrenics produce behavioral metabolic and cellular changes in normal beings.

Maturation of higher mental functions depends upon "the operation
of a complex sequence of metabolic processes extending in time from the initial stage of embryonic growth to the ultimate achievement of maximal functional integration at maturity, but the pattern of development depends on the activity of the appropriate genes and the caliber of the environment. These processes of brain maturation are controlled by the genes that guide the synthesis of specific proteins, including enzymes. The metabolic and morphologic changes in the nerve cells are thus guided by the activation of appropriate genes throughout maturation. The nerve cells in the human brain do not increase significantly in number after birth but the growth of the dendritic tree and associate synaptic connections delineate the higher functions of the brain since any defect produces severe neurological disorders. The single-gene single-enzyme concept of the biological disorder in schizophrenic syndrome is observed in monozygotic twins. There is no assurance however, that even a single enzymic defect, if present in a schizophrenic syndrome would be manifest in blood, urine or cerebrospinal fluid. Should the biological component be polygenic inadequacy, it may reside in the mechanisms underlying arousal, inhibition, perception, cognition, and affect; all of which are involved at one time or another.

Amentia is due to genetic factors that are biochemically determined with more than a third of aments revealing biochemical abnormalities. The genetic information of the genes is coded in the chemical structure of DNA molecule and finds expression through the synthesis of specific proteins. Biochemical factors are thus involved not only in the recognized metabolic diseases but also in those with chromosomal abnormalities and congenital structural defects.
The dynamic processes associated with mental maturation depend on an adequate supply of nutrients and metabolites as well as an appropriate stimulation in continuous interaction with the environment. The brain enjoys a favorable position in that it suffers less than other organs of the body under conditions of the marked malnutrition, though more vulnerable in the early stages of rapid growth. Severe malnutrition during the early periods of rapid growth can lead to functional impairment of the brain reflected in disturbed behavior patterns. The potential characteristics of a child are laid down in the DNA of the chromosomes but their development depends on the right degree of sensory stimulation from the environment. Bennett correlated retarding effects of sensory deprivation with a marked lowering of the protein content and enzyme activity of the cortex from differences in the extent of memory storage between deprived and stimulated mammals. 85

In review of the current theories denoting the etiological factors of infantile autism, it may be noted that autistic reactions may be precipitated in a susceptible child, whatever the genetic, cerebral or metabolic pathology. Inborn predisposition and environmental influence can only be approached by way of their interactions. A purely psychogenic theory of childhood autism is just as untenable as a purely genetic theory. Childhood autism is attributed to a specific heredofamilial tendency, rigid disorganization of the organism arouses tension that exceeds the habitual coping devices of the body. Consequently, special mechanisms are called upon in the emergency to maintain body equilibrium at lower levels of total functioning. The
child withdraws to protect himself from the anxiety arising from some basic pathology in the genes of the brain or from certain perceptual or sound relationships in the environment.

Both environment and heredity could be argued each with valid points and truth to each respected theory. However, no real proof has been exhibited by either side for there are parents who possess autistic children that really love and cherish their child. "These are people... whose families has no history of mental illness and who have normal siblings and a reasonably normal home environment. Autistic children have usually good physical care; they have been born into both large and small families, they have grandparents, cousins, aunts, and uncles who care." 86 However it is difficult to escape the conclusion that this emotional configuration in the home plays a dynamic role in the genesis of autism. But it seems equally clear that this factor while important in the development of that syndrome, is not sufficient in itself to result in its appearance. "There appears to be some way in which the children are different from the beginning of their extrauterine existence." 87

Early infantile autism is probably better understood as an extreme developmental deviation from what would otherwise be a normal developmental process. This extreme deviation, it is suggested, is consequent to an inborn functional neurophysiological imbalance, such as described earlier, and as such, cannot be viewed as involving, on the part of the parental environment, a traumatic or unfavorable quality. The parents of the autistic infant need not, therefore, be viewed with misgivings as far as their parental role toward the infant is concerned. Their deficiencies in this role stem from the absence in their autistic infant of any real capacity to send out signals or cues to which the parents could appropriately
Because their child is not "with them," they do not learn to be "with him," and eventually, they may become discouraged and finally withdraw and separate from the child. At such times "they may be considered distant, cold, rejecting," and it would be easy to conclude that they were that way from the beginning of the child's life.

Many authorities contend that parents are reacting rather normally to an abnormal situation and that conditions of normal interaction and communication between parent and child being absent, "they are waiting while their child is developmentally asleep." If and when the child can be made to wake up, one would expect these parents to find once again in their transactions with the child, the parental potential to be successfully adequate in helping their child develop normally. How to "awaken" the autistic infant and how to bring about a normal developmental process in which his parents can normally participate and share is the topic to be presented in the following pages.
Chapter Three

58 Carlson, op. cit., p. 39.

59 Bettelheim, op. cit., p. 16.

60 Rimland, op. cit., p. 78.

61 Ibid., p. 308.

62 Ibid., p. 308.


64 Kugelmass, op. cit., p. 138.

65 Rimland, op. cit., p. 42.


67 Carlson, op. cit., p. 44.

68 Wing, op. cit., p. 65.

69 Bettelheim, op. cit., p. 51.

70 Ibid., p. 51.

71 Ibid., p. 52.

72 Ibid., p. 55.

74Ibid., p. 34.

75Ibid., p. 34.


77Kanner (1943), op.cit., p. 243.


79Walter, op.cit., p. 78.


81Eisenberg (1959), op.cit., p. 311.

82Ibid., p. 313.

83Walter, op.cit., p. 90.

84Ibid., p. 90.

85Coleman, op.cit., p. 281.

86Rudikoff, op.cit., p. 59.

87Rimland, op.cit., p. 563.

88Stein, op.cit., p. 33.

89Carlson, op.cit., p. 17.
Chapter IV
Clinical Management

When parents begin to realize that their child is handicapped, their first reaction is to hope for a medical cure. Many attempts have been made to find such a simple solution to the problem of early childhood autism, but so far they are without success. Until recently, the predominant approach to the understanding and treatment of autism and other severe disorders of childhood has been that called the medical model, which has included both psychogenic and biogenic schools; the medical model is characterized by two assumptions or working hypotheses concerning the etiology and treatment of autism. First, with respect to etiology, it is assumed that the locus, or immediate cause of the child's disorder (as manifested by symptoms), is internal, that is, within the organism. To practitioners working within the medical model, the autistic child's behavior is variously taken to indicate an emotional disturbance, a disorder of the self, a disturbance in the child's conception or perception of reality, a metabolic imbalance, structural defect, or inherited predisposition to respond in maladaptive ways.

With respect to treatment, on the other hand, "a hallmark assumption of the medical model has been that of 'homeopathy' that is therapy is often derived from and consistent with notions of causation." In the context of treating illnesses, homeopathy, is a logical and practical working hypothesis. It has, in fact, been in use for several centuries. However, when the presenting symptoms are essentially deviant behavior (as in the case of autism, hyperaggression or hyperactivity), the practitioner of the medical model often finds himself unable to define or locate the internal
"illness" independent of its symptoms. In effect, he must infer an illness from the deviant behavior (symptoms). His treatment regimen, theg, may be aimed at the remediation of an inference. Thus, although many psycho­
genic theorists trace autism to "an hypothesized cold, punitive, homogeneous, or restricting family environment," they often argue that "the child's" autistic behavior will not improve until the internal disturbance is treated." 91

Harris Chaiklin (1968) summarized this conflicting dilemma stating techniques cannot be separated from the problems they are designed to ameliorate and treatment cannot be separated from an understanding of what the problem is." 92

Thus, each approach must be evaluated on two levels, - the theoretical and the therapeutic. Are the underlying theories conceptually and logically adequate in defining and explaining the problem? Is there any evidence to verify the theories (independent of the effects of the respective therapies)? And are the respective therapies effective in treating the problem?

The Biogenic Approach

Biogenic theories of autism posit either a genetic or a physiological "cause" based on the findings that the disorder is observed so very early in life, that there is a consistent ratio of 3 or 4 boys to one girl that the autism syndrome is closely simulated in brain damaged children, that there are no "gradations" of autism and that the syndrome is highly unique and specific. 93

From the discussion found in the previous chapter, one becomes aware of the vast amount of excellent research which has been and is being conducted in the biogenic approach. It is unfortunate, however, that the
technologies of treatment lag far behind the number and variety of theories that have been proposed. At present, chemotherapy seems to be a predominant form of treatment within the biogenic approach. Katy (1959) has reported on early studies involving the use of the drugs reserpine and chlorpromazine in the treatment of psychoses. The drugs were found to have some therapeutic efficacy in suppressing disturbed behavior. The subjects, however, did not meet the criteria established by Kanner in order to be labeled autistic.

Regarding autistic children, Rimland (1964) has proposed that LSD might have beneficial effects, and he has launched his own study involving the use of megadoses of niacin. To date the use of the drug Deanol has also been suggested as having some therapeutic benefit. The results, of the above studies have not yet been determined. Several researchers lastly have addressed themselves to therapeutic diets. Rimland (1968) has noted Abram Hoffer's suggestion that a therapeutic diet containing adrenochrome might produce beneficial modifications in the body chemistries of autistic children. More recently, Goodwin (1971), in a study of 15 autistic children, found abnormal responses in the children's TCDC (Transcephalic Direct Current) system to gliadin and variations in cortisol levels, suggesting a correlation between autism with malabsorption and sensitivities to food. During treatment that included a gluten-free diet there were apparent improvements in the autistic children.

In considering a therapeutic technique which best assists the autist toward normal development, an evaluation of approach utilized is essential before proceeding with a second approach. On the surface biogenic theories appear undisputable, yet they are weak in several areas. In the first place,
the evidence used to support them is subject to question.

Genetic theories are particularly susceptible in this regard. For instance, Kety (1959) has pointed out that a possible source of error in twin studies is the personal bias of the investigators who make both the judgment of zyosity and diagnosis of schizophrenia in the co-twins. In fact, reviewing Kallman's 1946-1949 survey, Kety notes that "of 174 monozygotic co-twins, Kallmann diagnosed 59 percent schizophrenic, while only 50 percent were diagnosed as schizophrenic by psychiatric hospitals prior to any examination of the twins by Kallman." On the other hand, Kallman made the diagnosis of schizophrenia in 9 percent of dizygotic co-twins as compared to a hospital diagnosis of schizophrenia in 6 percent.

More empirical criticisms of the genetic theory weaken its applicability to autism and of childhood schizophrenia. For example, there does not seem to be a raised incidence of schizophrenia or other psychotic disorders among the parents or relatives of the autistic (of the autistic children studied). Less than one percent of the parents studied by Lotter (1967) and slightly more than one percent of those studied by Kanner (1954) were psychotic. The data on concordance rates, on the other hand, are inconsistent. Pooling the data from the three largest studies, Rutter (1969) found a concordance rate of only two percent among siblings, a rate which is very low for any hereditary disorder. The lack of evidence of chromosomal abnormalities also seems to weaken the case for a genetic theory of autism.

With respect to the chemistry of autism, it must be noted that evidence for biochemical imbalances and metabolic abnormalities is usually obtained from children who have been "autistic" for some time. It is possible to suggest that "such biochemical abnormalities are relevant to the child's present functioning but have nothing to do with the child's having become
Indeed, it may be that any current biochemical abnormalities are themselves "consequences" of the child's "autism" - "they may be an effect of the stimulus events to which the autistic child is repeatedly exposed as a result of the behavior in which he engages." 101

Concerning the efficiency of therapies derived from biogenic theories it is premature to draw any strong conclusions, mainly because of the vast amount of research being done on chemotherapy. At present, the results of chemotherapy with autistic children are ambiguous. For instance, while Tobias (1959) observed "good" improvement in two autistic children treated with Deanol, and while Rimland observed "improvement bordering on the spectacular" in one autistic child treated with large doses of Deanol, Rimland also noted that in some cases Deanol treatment had to be discontinued because of negative side effects of the drug. 102 Thus, only the results of further research on chemotherapy will provide accurate conclusions regarding chemotherapy.

The efficacy of other varieties of somatically-based treatments of autism can, however be evaluated rather unequivocally. Rutter, Greenfield, and Lockyer (1967) found that those children on whom electro-convulsive shock therapy, insulin coma, and leucotomy tried were either not improved or were worse after treatment. 103

A final problem to be noted is that the biogenic approach may have negative implications if practitioners emphasize only biochemical factors. Since there is no way to undo the disposing influence of genetic factors, and no way, at present, to repair a severely damaged or undeveloped nervous system, "the implication may be that therapy is, at best, limited and prevention is, at most, a dream." 104
The Psychogenic Approach

For the past several decades, autism and childhood schizophrenia has been explained and treated within the psychogenic approach. The child's disordered behavior is taken to indicate a disturbance of thought and/or affect, the origin of which is likely to be found within the family, emphasis being placed on the interactions between parents and child.

The importance placed upon interaction patterns as a central factor in the etiology of autism has led many within the psychogenic approach to study the family. Both Bateson (1956) and Haley (1959) have used the paradigm of the "double bind" in investigating family communication patterns. The emphasis in their research is on the inability of the child to develop a coherent conception of himself and the world in the face of incongruent messages. It has also been hypothesized that the role structure of the family is a contributing factor. The family life of the autist is conducted on the basis of "pseudo-mutuality," when in fact "roles are either too rigid or too ambiguous, communication is disjointed, and there are pressures to maintain the facade of mutuality, which result in the child's conforming to a meaningless system."

By far the most popular psychogenic explanation of autism is the psychoanalytic one of Bettelheim cited earlier. According to Bettelheim autism is "basically a disturbance of the ability to reach out to the world." The cause of the disturbance is found in the relationship between the parent and child. In order for the child to feel secure enough to "reach out" to the world, to enter it as an active participant, the child must develop self confidence - a feeling that the self is potent.
and that the efforts of the self can be realized in the world. It is 
Bettelheim's supposition that the parents of the autistic child have 
prevented such a feeling from developing the child. They have either stifled 
his attempts to manipulate his environment or have forced the child 
too much, the result being failure.

The result is that the child rejects the world. The world is a hostile 
and frightening place for him and "he feels he is not potent enough to 
survive in it." 108 Thus, he withdraws. He does not interact with others; 
he is unresponsive to them; and he occupies his time and energy in the 
repetitive manipulation of familiar objects. "Even if he does have speech 
he is unable or unwilling to refer to himself as 'I' since he has no 'self.'" 109

Therapy, for Bettelheim and others who postulate the psychogenic theory, 
requires that the child have positive experiences with others, that the 
child learn that he can interact satisfactorily with others, and that his 
own actions have an influence on the environment. In this way, "the child 
will see the world as safe and himself as potent." 110 He will thus 
relinquish his autistic defenses, repetitive gestures, and apathy, which 
enable him to block out the world. Such therapy would require many years 
of involvement in intimate relationships with a very few persons who become, 
as it were, parent surrogates in a permissive environment.

In formulating an evaluation of the psychogenic approach to autism, 
it has been criticized in terms of both the logic and verification of 
psychogenic theories and the effectiveness of psychogenically-orientated 
therapy. A major criticism is that "efforts to verify the theories are 
for the most part, unsound." 111 The major proposition in most psychogenic 
theories is that the child has withdrawn into himself as a defense against
The threatening, cold, traumatic, or anxiety-producing relationships between himself and his parents. In order to verify such a proposition, the researcher would have to be present before and during the development of the child's disorder. He would have to observe that the parents behaved in a cold, hostile or threatening manner toward the child and that the child then began to exhibit autistic behavior. Instead, researchers typically observe the relationships between parents and child after the child has become autistic. It may well be that it is the parents that feel, and were indeed, rejected by the child.

The psychogenic approach has also been criticized for a lack of evidence that psychotherapeutic treatment is of benefit to psychotic children. Rimland, for example, cites Kanner's data to the effect that children who received the most adequate psychotherapy showed poorer records of improvement than those provided little or no treatment. Similarly, Levilt (1957) after reviewing a large number of studies of the results of psychotherapy with children found that the percentage cases rated "improved" was approximately the same for both treated and control groups. Wenar (1967) found no difference in the children's progress in communication skills between state institutions and small, psycho-analytically-orientated clinic. 112

It should be noted that the variables central to many psychogenic explanations of autism are not considered to be irrelevant. Rather, variables such as parental punitiveness and unresponsiveness to the child are included in both the operant conditioning and social exchange approaches to autism. What is being argued, however, is that the above variables, in the hands of many psychogenic theorists, serve as pejorative labels. The parents become "types" of people who are punitive or unresponsive
toward their child; punitiveness and unresponsiveness become stable "traits" of the parents. The child is thus viewed as "being at the mercy of parents having such traits." Consequently, the task becomes one of analyzing the home environment as a social system to see if and how parental unresponsiveness influences the behavior of the child, and if parental unresponsiveness is itself a function of some other features of the home environment.

The Behavioral Model

For over fifty years, research has been conducted within the behavioral sciences that is consistent with, is indeed the foundation of, behavioral approaches to disordered behavior. Behavioral approaches to disordered behavior did not rise in prominence, however, until the past two decades, during which time the two working hypotheses of the then predominant medical model came under wide criticism. With respect to the locus of the disorder; both the psychogenic and biogenic schools have been criticized for lack of confirming evidence of an internal emotional disturbance.

In sharp contrast to the medical model is the behavioral model which, like the medical model, is characterized by its assumptions concerning the locus, or cause, of the disorder and the nature of the treatment. For practitioners of the behavioral model, the locus of the autistic child's problems is external; "the immediate causes of the problem, the disordered behavior, are to be found in the child's environment, particularly in those stimulus events which impinge upon the child in systematic ways." In other words, the child's disordered behavior is not regarded as a symptom or manifestation of an underlying disturbance, but rather as a direct consequence of external stimulus events.

Perhaps the most important contribution of the behavioral model to
the treatment of autistic children and to the training of their parents is its assumption concerning the nature of treatment. In contrast to the homoeopathic therapy of the medical model, in which treatment is derived from and consistent with notions of causation, the behavioral model is characterized by heteropathic therapy, in which treatment and causation are separated. Heteropathic therapy is: "(1) concerned more with the present determinants of the child's disordered behavior and less with past and perhaps now irrelevant circumstances, and (2) consistent not with theories of causation but with theories of the nature of therapy treatment, and especially behavioral change." Treatment of autistic children within the various behavioral approaches, then, is not a curative process, since treatment, again, is not guided by and conducted in terms of an alleged cause but in terms of the child's present deficits. Thus, treatment is a process of education. For whatever ultimate reasons, the autistic child did not learn to play, speak, or cooperate. Treatment within behavioral approaches is designed to teach the child the behavior patterns which are also necessary for the realization of his intellectual and emotional potentials.

There are, at present, two main behavioral approaches to the understanding and treatment of autism; operant conditioning and social exchange theory. Both will be examined.

The operant conditioning theory, in contrast to respondent or classical conditioning theory, focuses upon those classes of behavior whose future occurrence is thought to be a function largely of those stimulus events which follow the response, that is, consequences. Operant responses have
the capacity to be influenced by several types of consequent events, each distinguished by its effect on the future occurrence or strength or responses in the same class. Operants can, in the first place, produce stimulus events or consequences which increase the frequency or probability of their future occurrence. Such consequent events are termed positive reinforcers; the process of strengthening responses by presenting positive reinforcers is called positive reinforcement. 116

Second, operants can produce stimulus events which make their future occurrence less likely, that is, the response can produce a positive punisher. In this case the process is termed positive punishment, that is, weakening a response through the presentation of positive stimuli. Third, an operant response can have the consequences of enabling the person to remove an aversive stimulus event or avoid it such that the future occurrence of the response is strengthened. In this case, the events that are escaped or avoided are termed negative reinforcers; they reinforce or strengthen the responses which remove or avoid them. The process involved is called negative reinforcement. Fourth, an operant can have as its consequence the removal of a stimulus event to the degree that in the future the response is less likely to occur. Here, the stimulus event which is removed is a positive reinforcer and the process involved is termed negative punishment, that is, weakening or response through the removal of positive reinforcers. Finally, a response can produce neutral stimuli, that is, consequences which function neither as reinforcers nor punishers, such as the future occurrence of the response is less likely. The process, here, is termed extinction. 117

The above principles form the basis of the operant conditioning theory of autism and the foundation of the educational procedures of behavior
modification. It will be recalled that a working hypothesis in the behavioral model contends that the symptoms of the autistic child are controlled by the consequences of his behavior rather than by the scars of his environment. That behavior which results in the child's obtaining positive reinforcers will become part of the child's behavioral repertoire if reinforced systematically. That which is not reinforced (extinguished) or which is punished will not become part of the child's repertoire.

Observations of the interaction patterns between the autistic child and significant others in his environment indicate that "the child's autistic behaviors do produce positive reinforcement." Tantrums, bizarre gestures, uncooperativeness, and destructiveness are often consistently followed by attention, food, and toys. "Normal" behaviors on the other hand, tend not to be reinforced. The autistic child is reinforced too infrequently when he makes approximations to appropriate behavior. Hence, "the fleeting and rare appropriate responses that he does emit never become part of his behavioral repertoire." Moreover, many social stimuli, such as physical contact and praise, are neutral stimuli for the autist. Consequently, they do not strengthen appropriate behavior when they are presented to the child by others.

Treatment programs within the operant conditioning approach that deal with psychotic children, are essentially designed as educational environments that design their programs "to modify the behavior of the children in such a way that they will be able to enter natural communities of reinforcement, such as the public school and peer group."

The environment is constructed in such a way that autistic and inappropriate behaviors are weakened, usually through extinction, time out, and in some cases of serious self-injurious behavior, punishment procedures. It should be noted that the above procedures
designed to decelerate behaviors are usually coupled with procedures for strengthening appropriate behaviors incompatible with the inappropriate behaviors. At the same time, the behavioral deficits of the autistic child, for instance his lack of functional speech, play, self-care behavior, are handled with "remedial procedures involving such fundamental techniques for strengthening behavior as shaping, prompting, fading, modeling and of course, differential reinforcement." 121

The results of the studies performed to operant conditioning analyze the effect of the approach have demonstrated remarkable success in rehabilitating autistic children and in training their parents to incorporate the procedures in the home environment. Like all other approaches, however, the operant conditioning approach also has several drawbacks, both theoretical and a therapeutic. Foremost in the arguments is the criticism that many operant conditioners "overlook the social nature and social context of autism." 122 Few have extended the principles of operant conditioning widely enough to describe and explain the reciprocal control of behavior in the families of autistic children. The autistic child is engaged "in structured exchanges with his parents in which the behavior of each party is controlled by the behavior of the other." 123 Such a conception of structured exchanges is essential not only to an understanding of socialization but also to an explanation of long-term behavioral changes in the families of parents who have been trained. Thus, a second theory, has been introduced in an attempt to overcome the above-mentioned shortcomings - the social exchange theory.

From the behavioral perspective of the social exchange theory, autism is seen as primarily the behaviors which describe it. Moreover, "autistic behaviors are viewed as capable of maintenance or therapeutic modification
by the system of structured exchanges in which the child is a participant."
In the following elaboration of a social exchange theory of autism and its
remediation, one will note that the processes of operant conditioning are
the basis upon which the principles of social exchange theory are built.

The behavior of each party in an exchange is determined by the conse-
quences in terms of reinforcement and punishment of the behavioral response
emitted. These invariant relationship which occur between the strength
of a response and the rewarding or costly consequences of that response
apply to both parent and the child. In essence, an exchange exists. 124

In order to better comprehend this relationship an illustrative example
is in order. If, for example, the autistic child begins to bang his head,
and if the parent, finding the child's behavior disturbing gives the child
attention inadvertently, by trying to make him stop banging his head,
then the child may, in the future, repeat head-banging in order to produce
attention because he is rewarded with attention for banging his head,
and the parent will repeat giving the child inadvertent attention because
giving the child attention is rewarded by enabling the parent to escape,
for a time, the disturbing head-banging.

Since, a person will repeat those responses which are reinforced,
the intercommunication between parent and child tend to be repeated. This
statement is "central to the explanation of the maintenance and worsening
of many classes of autistic behavior." 125 What is meant by an exchange
being repeated is that the responses of each person and the rewards each
person receives as a consequence of his responses, become fixed in a
sequence or pattern, and the pattern is what is repeated. In sum, what
might have once been an accidental sequence of events becomes a structured
exchange in which child and parent continually engage.
The contribution of sociology, here is that it enables one to view interpersonal dialogues as structured components of social systems. When a message is no longer adventitious, when it occurs over and over, it is part of the social structure of the system. Indeed, many if not all, social systems, be they families, classrooms, or explicit therapy relationships, consist of structured social interchanges which influence the behavior and feelings of the participants. Social systems "by virtue of the direct influence of social exchanges on behavior and feelings are essentially socializing systems or learning environments." Depending upon the structured communication found in the system, the system can encourage and strengthen healthy, adaptive and personally satisfying behavior or pathological, maladaptive and personally painful behavior for the participants, both teachers, parents, and children.

The education of an autistic child does not involve searching out the initial cause rather, it involves the restructuring of the exchanges in which the child is engaged. First, the old structure is broken. No longer is the child reinforced for autistic behavior. Second, a new and equally attractive set of structured exchanges is instituted which requires and hence promotes appropriate behavior. For instance, in order to obtain food, the child must sit quietly at the table. After a period of testing the new structure, the child will learn what the structure is and will learn to use it in order to obtain what he wants. Little by little a series of structured exchanges is created between the child and the parent or teacher, each of which promotes a new form of appropriate behavior. Just as he had continued to engage in pathogenic exchanges so the autistic child, having learned that the old structured exchanges are no longer in existence now engages in orthogenic exchanges because he is rewarded for
emitting appropriate behavior. In fact, the new structures are often less costly for the child. It is imperative, then that parents learn to manage desirable and undesirable behaviors in the home in the same ways they are managed in the child's school. Specifically, parents must learn (1) which responses to require of their child and which to regard as unacceptable; (2) how to initiate exchanges with the child so that new, positive, structured exchanges will develop; and (3) how to teach the child to perform new kinds of behavior (4) how to reward appropriate behavior and how to handle inappropriate behavior and (5) how to maintain positive, orthogenic exchanges such that they remain rewarding to both parents and child without requiring too much of either party and without satiating either party. The effectiveness of educational systems based upon the principles of social exchange theory and behavior modification can be remarkably successful. This success can best be demonstrated by a case study in which I was personally involved.
Chapter Four


91 Tustin, op.cit., p. 411.

92 Alpern, op.cit., p. 115

93 Eisenberg, (1959), op.cit., p. 415


95 Rimland, op.cit., p. 203.


98 Kety, op.cit., p. 1529.

99 Ibid., p. 1529.

100 Ibid., p. 1530.

101 Rimland, op.cit., p. 730.

102 Kety, op.cit., p. 1530.

103 Ibid., p. 1531

104 Ibid., p. 1532.

105 Bawkin, op.cit., p. 823.
106 Ibid., p. 825.

107 Bettelheim, op. cit., p. 4.

108 Ibid., p. 7.

109 Rudikoff, op. cit., p. 59.

110 Bettelheim, op. cit., p. 10.

111 Rimland, op. cit., p. 80.

112 Ibid., p. 718.

113 Ibid., p. 718.

114 Coffey, op. cit., p. 12.

115 Bawkin, op. cit., p. 195.


117 Ibid., p. 51.


119 Ibid., p. 39.

120 Ibid., p. 40.

121 Ibid., p. 40.

122 Hermelin, op. cit., p. 338.
123 Ibid., p. 339.


125 Ibid., p. 286.

126 Karen, op. cit., p. 67.

127 Sage, op. cit., p. 41.
Chapter V

Case Study

The problems of diagnosis and treatment are the primary concern of the physician but the difficulties of management and prognosis are the main concern of the parents. The caliber of response to the periodic questions posed on the outcome of the child's condition constitute the art of prognosis involving knowledge of the nature of the autistic process: estimation of the natural course of derangement; frequency of complications and sequelae; effects of available therapeutic procedures, and unsuspected changes affected by the parental attitude. The prognosis may be favorable guarded or unfavorable. A favorable prognosis rendered in a mild case "should be postponed until periodic reassurance has poured its oil on the troubled waters." 128 A guarded or unfavorable prognosis "should be tempered by emphasis on the hopeful aspects, ominous qualifications may be added later and correctly adjudicated." 129 Few parents have the courage to face truth; in adversity each of us is anxious to practice self-deceit. "It is as easy to deceive one's self without perceiving it as it is difficult to deceive others without them perceiving it." 130

In the case cited below, the parents were able to overcome the obstacle of self-deception. Consequently, their child at age five, was diagnosed "autistic" and received an unfavorable prognosis. Five years later, he no longer demonstrates the behavior characteristic of the syndrome and hence has had the label removed.

Description of the Child

John, a Caucasian male and only child was born July 5, 1968. His mother listed her occupation as teacher. She had received her college
degree in education and initiated a Montessori school for children in which her own child participated. Mr. Doe had served in the U.S. Navy during the child's developmental years and received training as an x-ray technician. Concerning the family's medical history the Does indicated that neither parents, grandparents, uncles, or aunts of John had any history of serious mental illness or retardation. John seemed to be developing normally during his first two years. Suspicion that something was wrong with their child began at age two, when "his speech just didn't come." As he grew older, John's repertoire of behavior became more and more autistic. He was no longer a happy, inquisitive child. He became withdrawn and drooled constantly, although there was no appearance of new teeth forming. He demanded sameness in his environment and developed patterns of ritualistic behavior. The Does were unable to explain the deterioration of John's behavioral repertoire although they were certain it had not followed any sudden, unusual, or traumatic experiences or illnesses.

The Does then made the rounds of professionals with the only success being the placement of the label "autistic" on their child. Their efforts to obtain help were futile. Mrs. Doe remarked that no one ever gave them concrete instructions in how to deal with John. The result was increasing frustration for the Does, as John became progressively more disturbed.

By age four, John had become extremely withdrawn, usually avoiding eye contact as well as physical contact with others. He often held his arms in a stereotyped position: encircling his eyes and ears, a position which had frequently produced attention when people tried to pull his arms down. Although he could hum the tunes and say a few lines, in echolalic fashion, to several television commercials, John was essentially
mute. He seldom made any sounds at all, except when engaged in a pattern of grunting and slapping his hip. He spent much of his time moving and rearranging objects around the house in a ritualistic way. He frequently engaged in self-destructive behavior, such as biting his index finger, palms, and backs of his hands, striking himself on the sides of his head and on the cheekbones with his foreknuckles, and slapping his face, never breaking the skin but raising huge calluses and welts. When attempts were made to stop him, he slapped those near him, bit his finger, and threw himself onto the floor kicking and screaming.

Ten years ago, professional help for autistic children was not readily available. Hence, after searching in vain for four years for what seemed impossible, the Does chose to refuse the prognosis given their child and began to treat and educate John, using techniques familiar to Mrs. Doe and utilized in her Montessori school.

**Therapy**

The goals which the Does hoped to accomplish were to teach John to play and to decrease the more disruptive forms of inappropriate behavior and to increase his use of speech. Essentially, John had three types of disruptive behavior: (1) tantrums, (2) removing his clothing, and (3) ritualistically disordering the house. Whenever he entered his uncooperative phase, all three would be present. Tantrums and disordering the house were the more frequent of the three. The latter was felt to be the most problematic because it occupied so much of John's time, therapy preventing him from learning appropriate behavior. Thus, it was felt that if self-initiated play could be taught, it would impede the disruptive behavior.

In attempting to encourage self-initiated play, John was not rewarded
for completing a task or for playing a certain length of time, but for
initiating play by touching or approaching the play object. The Does
approach was successful for a short period of time, but soon John's play
had begun to decrease. A reversal procedure was then attempted which
consisted of removing all toys not giving him the opportunity to play at
all. It was hoped that the const raint would be sufficient to increase
playing once toys were reinstated. This second procedure proved effective
for all forms of disruptive behavior decreased, which allowed John and his
father to spend more time in constructive activities together.

With this new found success, a second stage was introduced in which
John was rewarded not only for initiating play but he was given special
education in learning how to play. The toys used in the early sessions
were simple ones: Play-doh, pop-beads, simple puzzles, plastic building
blocks and tinker toys. Later, more complicated toys were introduced:
jigsaw puzzles, a pegboard landscape, and a machine to cut out various shapes
of paper. Besides changing the complexity of the toys, Mrs. Doe also
gradually changed the schedule of reciprocation from almost continuous
reinforcement, in the beginning, to a fairly high variable ratio schedule
toward the end. These structured play sessions proved again successful
in motivating and teaching John to play.

The structure of the exchanges in the home throughout the day regarding
play and disruptions were as follows: (1) John was rewarded with food
and praise every time he initiated play and intermittently while he played,
and (2) toys were to be rotated every few days. (3) John was removed
from his setting (timed-out), immediately for every instance of the
disruptions, that have already been named. These conditions were used to
maintain play behavior and decrease disruptions. The purpose of the structured play sessions was to increase John’s skill at playing. It was the addition of John’s increased play skill to the pre-existing structure of the exchanges which proved successful in building his play repertoire and reducing disruptiveness. We now proceed then to the final goal, which the Does had hoped to achieve: speech training. Before designing an appropriate method for speech training, specific observations were made. First, John’s rate of appropriate verbal responses to the questions was quite low. At the same time, his attention was also low. It was not unusual for him to get up from the table and walk around but he also would engage in tantrums. Neither his responses nor his attentiveness were conducive to speech therapy and thus needed remediation.

In an attempt to satisfy both problems, structured sessions were utilized, similar to the structured play sessions. During these sessions, Mrs. Doe used pictured cards and pictured books to ask John questions relevant to the pictures. In order to increase attention, Mrs. Doe would ignore her child and refused to hold up the picture or to ask him a question until he was attentive to her. She would also ignore him if he got up from the table. Correct verbal responses were stimulated by asking only “single” questions, that is she would ask a particular question once and then go onto another if John did not emit an appropriate response within a designated amount of time. Reinforcement was contingent on appropriate responses and took the form of praise and a bite of food, – both being positive reinforcement for the child.

This technique of using only single questions to promote verbal responses, or better to initiate verbal exchanges, was an important determinant of John’s rate of correct responses. The results, as indicated
by Mrs. Doe, showed that John soon began answering a number of questions without prompting. His imitative speech became quite strong (he directed to him), and he began to use words to ask for things. Language exchanges were being managed effectively by Mr. and Mrs. Doe.

Results

In sum, by the end of the extensive therapy program which lasted over a year, John had made several important steps in his socialization. His mother and father began to manage exchanges involving speech, play, and disruptive behavior. Likewise, this accomplishment greatly reduced the amount of frustration and futility experienced by the Does.

Today, John Doe is a student functioning at a public school in South California. He is not yet able to meet the demands of a regular classroom situation but his prognosis towards a normal adolescence paints a much brighter picture than that of his childhood. His parents continue to demonstrate love and affection toward their only child in an attempt to destroy forever the wall which once kept John isolated from the world.
Conclusion

According to an estimate made by the National Association for Mental Health in the early 1960's "over one-half million children in the United States suffer from severe emotional disturbance." This estimate has grown considerably in the past decade and there is evidence that the number is still rising. It is for this reason that I chose to investigate the childhood disease known as "autism", in an attempt to focus on one therapeutic approach in relation to one etiological factor. Such an objective was unattainable, since no indisputable conclusion concerning autism exists. The knowledge procured through the writing of this thesis, however, is remunerative.

The autistic child spends many of his waking hours engaged in self-stimulatory, bizarre, and often self-destructive behavior. He may sit in the corner for hours staring intently at his fingers or at a shiny object rocking back and forth all the while. He may make hundreds of ritualistic gestures during the day - moving his hands and fingers in a fixed pattern, pulling at his hair, twisting his face into strange expressions. The autist also engages in acts of self-mutilation, especially if he is non-verbal. He scratches, pinches, and strikes himself. He bites at his arms and shoulders, raising huge calluses, welts, and sometimes even tears his own flesh.

Even in the presence of his parents, the autistic child seems alone. He pays little or no attention to others, avoiding not only physical contact but even the gaze of others. Half of all autistic children are mute. Those who do have speech, however, do not use it to communicate. They either endlessly repeat words they have heard at some time or another or
they imitate in a meaningless fashion what others say to them.

Actually, the autistic child's range of activity is extremely narrow. They rarely do anything for themselves. They do not know how to play and they do not usually cooperate with the directives or questions of others. On the contrary when not either physically withdrawn or engaged in self-stimulation, they can be found aimlessly wandering or running through the house, throwing everything off the tables, destroying furniture and wallpaper, pulling and pushing their parents to turn on music, to get them food, or anything they happen to want at the time. When frustrated, their destructiveness increases. They may strike their parents, bite themselves, or throw themselves against the wall or onto the floor, kicking and screaming.

The prognosis for the autistic child has been poor until recently. Only a minority reach a good level of social adjustment by adolescence, and even fewer enter paid employment. The rest have faced a life of confinement at home or in an institution for the chronically ill. In either case, the cost in terms of human potential and suffering has been enormous. Not only has the autistic child led a wasted life, but the lives of his parents have been full of constant torment from the behavior of the child and from their own feelings of guilt, frustration, and hopelessness.

For those devoted to the research, prevention and treatment of autism, acceptance of the criticism of their theories and therapies is difficult, perhaps because in light of the above statement, such criticism implies that they are wasting not merely their own time, but others lives.

It is my opinion, and certainly that of other researchers and practitioners that the suffering involved in and produced by autism
far outweighs the stings of professional criticism. Moreover, the urgent need for effective methods of prevention and treatment demands that defenses be lowered in order that all sides see that no one yet has the complete solution and together begin to work cooperatively in the task of finding one. This, then, is my hope for the future of autistic research.
Chapter Five and Conclusion

128 Bawkin, op.cit., p. 594.

129 Ibid., p. 594.

130 Coleman, op.cit., p. 69.

131 This information was obtained through interviews, observations, and discussions at John Does home, December 26 thru January 9, 1977-78.

Bibliography


