

AUTISM:
A CRITICAL INQUIRY INTO THE GENESIS OF AUTISM
by David Lissak

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CURRICULUM STUDIORUM

David Lissak was born July 13, 1924, in Rovno, Poland. He received the Master of Arts degree in Education from the Hebrew University, Jerusalem, Israel, in 1957. The title of his thesis was The Influence of the Family upon the Learning of Siblings. He received the Master of Arts degree in Psychology from the University of Toronto in 1962. The title of his thesis was Lateral Dominance and Its Effect upon the Learning of Hebrew and English (Languages of Opposite Directions).

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INTRODUCTION

The impression one gets on reviewing the psychological literature of the last half-century is that the concept of autism occupies a nodal position in the study of human behavior in general and in the investigation of cognitive processes in particular. Evidently autism plays a universal role in human life and constitutes a point of conjunction for various conclusions on normal and abnormal phenomena in mental life. As a psychological experience, or as a phenomenon in cognitive functioning, autism is a very peculiar one. It follows man in dream and wakefulness, in fantasy and in reality-oriented thinking, in normality and in pathology, as well as throughout the history of mankind. In psychological literature, at present, it is considered to be a normal transitory stage in cognitive development, a psychopathological syndrome in early childhood, an important symptom in psychosis, and a constituent of normal thought processes.

Essentially autism represents the subjectivity in man's cognitive functioning; the turning away from reality and liberating subjective wishes that direct the thought processes through illogical connections and incidental associations to wishfulfilment. As a psychological phenomenon it is purely human. Even if one agrees with

Hebb,¹ that animals think, and with Hartmann,² that animals have an ego, still an animal cannot be autistic; the animal world exists only on reality-function. To be human, the literature suggests, implies to be some extent autistic.

Although autistic phenomena are as old as human existence, the scientific investigation of autism is still very young. For many centuries descriptions of autistic phenomena could be found in literature, poetry, and folklore but no scientific attention was given to it. In the domain of science, as Murphy³ points out, rationality was supreme and the view that feeling and thought are utterly different things, ruled the scientific world. Feeling was considered to be an interference, a residual of animality in man, which could and should be overcome by cold and clear thinking. Only with the beginning of the twentieth century, when interest in the human being as a person became pronounced and psychology concerned itself with motivation and personality development, the artificial separation of cognitive

1 D.O. Hebb, "On Human Thought", in Canadian Journal of Psychology, Vol. 7, No. 3, issue of September 1953, p. 99.

2 Heinz Hartmann, Ego Psychology and the Problem of Adaptation, New York, International Universities Press, 1958, p. 48.

3 Gardner Murphy, Personality: A Biosocial Approach to Origins and Structure, New York, Harper & Brothers, 1947, p. 362-364.

processes from feeling was abandoned, and autistic phenomena received scientific attention.

Notwithstanding the fact that, in the last fifty years many studies of autism were done, one is impressed by the lack of a significant addition to the knowledge of the subject which remains much as it was when Bleuler⁴ first described the phenomenon and named it autism. Although from time to time, in the course of the last fifty years, a fresh wave of interest has been aroused in autism, the investigations failed to yield conclusive results, and no foundation of secure findings upon which a later investigator might build has been established. The cause of their failure can be traced to the very character of autism which in itself constitutes a difficult field of psychological investigation. Difficulties inherent in a subject of study are frequently mentioned in the introduction to scientific works as an excuse for the deficiencies of the exposition. In the present case the discussion of the difficulties will serve to indicate some of the general aspects of the subject.

As evident from abundant writings on the subject, the first difficulty resides in the fact that the study of autistic phenomena, which is widely scattered and extends into

4 Eugen Bleuler, "Autistic Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 399-437.

many related fields of investigation, signifies more than merely the formulation of a series of new conclusions. Autism is involved in and offers explanations for problems so remote from one another, as the motivation of thought processes, psychopathology of cognition, veridical and nonveridical perception, the origin of myths, the sources of creativity, the tendency to superstitious beliefs, et cetera, that its study necessitates a radical change of attitude and departure from the thus far employed methods of approach.

The second difficulty lies simply in the problem of semantics. Originally the concept of autism, as defined by Bleuler,⁵ referred to a certain tendency of active withdrawal from the external world, accompanied by a preponderance of inner life. Later, because many studies on autism were done in different conceptual systems it became increasingly difficult to relate their descriptions of the phenomenon to its original meaning.

The third difficulty lies in the usage of the term autism. As it stands now, it is employed so loosely that it lost its meaning within the precision of scientific expression. In the last three decades the term autism, originally belonging to adult pathology, infiltrated child psychiatry and psychology without scientific proof that the concept

⁵ Bleuler, Op. Cit., p. 399.

explains the child's pathological behavior as it does in the case of the adult. Consequently, the concept of autism became a vague qualifier of nonveridical behavior without discrimination between the normal and abnormal.

Another element which added to the confusion and lack of clarity was the introduction of the concept of early infantile autism as a psychopathological syndrome in early childhood by Kanner.⁶ This created a situation in which autism, as used in child psychology, refers to two diverse behavior patterns. It is considered to represent the primitive and drive-compelled, but normal, stage of mental functioning in early childhood, and at the same time it refers to a clinical picture at the same stage of development, characterized by complete withdrawal from the external world as well as disturbance in affect.

In view of the above it is the intention of this writer to clarify, through a critical inquiry of psychological sources the problem of the genesis of autism in order to make the meaning of the phenomenon unified and comprehensible.

To reach this objective the problem will be investigated within two areas. One will deal with the plausibility of autism in early mental life, the other will be concerned

⁶ Leo Kanner, "Early Infantile Autism", in Journal of Pediatrics, Vol. 25, issue of September 1944, p. 211-247.

with the applicability of the term autism to Kanner's⁷ syndrome.

The first chapter of the thesis presents a review of the literature. Since this study concerns itself with the problem of the genesis of autism only those contributions are reviewed which bear a meaningful relationship to this investigation. Part one of this chapter reports on different theories related to the genesis of autism. The conclusion of this chapter presents the hypothesis of the present study.

In the second chapter the problem of the plausibility of autism in early mental life is presented. The focus of the inquiry in this chapter is on discussion of theories of early cognitive development and analysis of the determinants of autism.

In the third chapter a critical examination of the autistic syndrome in early childhood is presented.

Chapter four presents a theoretical elaboration on the genesis of autism. A summary of the investigation and suggestions for further research are found in the conclusion of this last chapter.

7 Kanner, Op. Cit., p. 211-217.

CHAPTER I

REVIEW OF THE LITERATURE

1. The Meaning of Autism.

The concept of autism is one of the most important contributions of Bleuler.¹ He used this term to refer to a certain tendency to turn away from reality, accompanied by a certain type of thinking which does not represent occurrences in the external world and is not bound by the laws of logic.

It mirrors the fulfillment of wishes and strivings, thinks away obstacles, conceives of impossibilities as possible, and of goals as attained. It does so by facilitating those associations which correspond to the striving, and by inhibiting those which contradict it, that is by mechanisms familiar to us as influences of affects.

Initially, Bleuler³ considered autism only as an important symptom in schizophrenia, but it soon became apparent to him that the phenomenon plays a universal role in human life. He observed that autism is not only a symptom of a clinical entity but, rather, a psychological

1 Eugen Bleuler, "Autistic Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 399-437.

2 Ibid., p. 404.

3 Ibid., p. 399-437.

reaction to inner and outer experiences manifest in different degrees in a variety of life situations. He writes:

We find the same mechanisms in dreams, in the daydreams of normals and hysterics, in mythology, in superstition, as well as in other deviations of thought from reality. There are essentially only quantitative differences between the dream of the youngster who plays general on his hobby-horse, the poet whose poem abreacts his unhappy love or transforms it into a happy one, the twilight state of the hysteric, and the hallucinations of the schizophrenic in which his most impossible wishes appear fulfilled. All these are but points along the same scale.

Autism, according to him, is an active and goal-directed process which may be a fleeting episode of short duration, or it may fill a life and entirely replace reality. Although in excess it is a source of disadaptation, in moderation it is easily borne and has a positive value. A certain liberation of thinking from reality is a prerequisite for new combinations and discovery. It stimulates enthusiasm and activity, is useful as an abreaction, and gives an opportunity for the exercise of thinking ability and planning of the future.

The autistic detachment from reality accompanied by the relative or absolute predominance of inner life is essentially, according to Bleuler,⁵ an impairment in

4 Bleuler, Op. Cit., p. 401-402.

5 -----, "The Basic Symptoms of Schizophrenia", in David Rapaport, (Ed.), Op. Cit., p. 581-649.

cognitive functioning. It represents a disorder of association and affect, which distorts perception and thinking.

In his own words:

It is not after truths, but after the fulfillment of wishes; it does not operate with the experientially established associations of strict, realistic-logical thinking, but with incidental associations of ideas, vague analogies, and above all, effective needs.⁶

Autistic thinking need not consider reality since it brings to consciousness ideas corresponding to an internal tendency, a momentary mood, or some striving; whether or not something is real, possible, or thinkable, is of no concern to it. Reality enters only in that it has supplied and still supplies the presentation-material which the autistic mechanisms use either as their point of departure or as their subject-matter.⁷

The basic characteristic of autism is that it does not pay attention to the dividing lines between human experiences and the verification of these experiences by looking at reality and using logic of relationships. In normal life autistic thinking still operates with stable concepts only replacing reality by arbitrary presuppositions, and the return to the external world is easily done. In pathology, particularly in schizophrenia, the disruption of associations is complete and, logically, the individual does not sense any more the difference between the inner and outer world;

⁶ Bleuler, "Autistic-Undisciplined Thinking", in David Rapaport, (Ed.), Op. Cit., p. 439.

⁷ -----, "Autistic Thinking", Op. Cit., p. 408-409.

the intra-psychic reality assumes the role which properly belongs only to external reality.

In final analysis, as Bleuler⁸ points out, the human species has to come to terms with the existence of autism. Sober realists, who exaggerate in their realistic thinking, live, according to him, only for the moment and cannot anticipate. Extreme autism, on the other hand, produces dreamers who are shut off from the external world and are inactive. But in moderation, loosening of the strict, realistic-logical thinking - which allows for incidental associations of ideas - makes possible the highest achievement, namely, the correct combination of reality and wish.

The assumption that autism is essentially an impairment in cognitive functioning is found also in writings of other investigators. Thus, Kleist⁹ in Germany, Luriya¹⁰ in Russia, and Goldstein¹¹ in U.S.A. maintain that the basic characteristic of autism, especially in its extreme form in

8 Bleuler, "Autistic Thinkings", Op. Cit., p. 399-437.

9 Karl Kleist, "Schizophrenic Symptoms and Cerebral Pathology", in Journal of Mental Science, Vol. 106, No. 442, issue of January 1960, p. 246-255.

10 A.R. Luriya, "Speech Development and the Formation of Mental Processes", in Psychological Science in the USSR, Vol. 1, Washington, U.S. Joint Publications Research Service, 1961, p. 704-787.

11 Kurt Goldstein, "Functional Disturbances in Brain Damage", in Silvano Arieti, (Ed.), American Handbook of Psychiatry, Vol. 1, New York, Basic Books, 1959, p. 770-794.

schizophrenia, is an inability to form abstract concepts. According to them autistic thinking is concrete and is similar to the disorder of thought occurring in patients with organic brain damage.

Another group of investigators represented by Schilder¹² and more recently by Payne¹³ stresses overinclusiveness of concepts and inability to attend selectively as the main cause of autistic thinking. According to these writers autistic persons tend to form wide, overinclusive, and poorly delineated concepts. All thinking, according to Schilder,¹⁴ is an internal process of trial and error and of utilization of object relations which passes through stages of affective reconstruction and symbolization. The main characteristic of thinking proper is that it reaches its goal in spite of affective reconstruction in the preceding phases. Autistic thinking, on the other hand, represents an uncompleted act of thought, an arrest on a transitional phase. Since thinking gets its effective direction towards reality only in the last phase of the process, every cognitive act

¹² Paul Schilder, Mind: Perception and Thought in Their Constructive Aspects, New York, Columbia University Press, 1942, xii-432 p.

¹³ R.W. Payne, "Cognitive Abnormalities", in H.J. Eysenck, (ed.), Handbook of Abnormal Psychology, New York, Basic Books, 1961, p. 245-250.

¹⁴ Schilder, Op. Cit., p. 300-323.

arrested on a transitional phase will not be differentiated and will show a predominance of instinctual life and affectivity. Autistic thinking is thus, essentially a malformation in the process of differentiation of thoughts.

A third group of investigators claims that autistic thinking represents a regression to the level of cognitive functioning of the child or of the primitive man. Mostly influenced by the recapitulation theory, the classic psychoanalytic theory, and anthropology, the regression hypothesis, as applied to autistic thinking, assumes that the primitive man provides an accurate picture of early stages of biological and social evolution of the civilized man. Autistic thinking is thus described to result from a break in the rational layer of cognitive functioning which allows for archaic modes of dealing with reality to appear on the surface.

The contemporary representatives of this group are Arieti¹⁵ in psychiatry and Werner¹⁶ in psychology. According to the former autistic thinking is not irrational. Instead, it represents a teleologic regression to archaic forms of rationality, to a paleological type of logic. Autism in his

¹⁵ Silvano Arieti, Interpretation of Schizophrenia, New York, Brunner, 1955, xviii-541 p.

¹⁶ Heinz Werner, Comparative Psychology of Mental Development, New York, International Universities Press, 1957, (revised edition), xii-584 p.

view is not due to an impairment in cognitive functioning but, rather, it is a purposeful and active tendency toward a reversed hierarchy of cognitive responses, from the highest to the lowest, to avoid anxiety.

Werner¹⁷ too stresses the regressive nature of autistic thinking. According to him the regression to lower levels of cognitive functioning enables the person to bring the external world closer to the subject. The autistic world and that of the primitive or of the child is a world of nearness-at-hand in which subject and object are merged; it is a world of physiognomic perception and syncretic conceptualization. In this world things are not substantial, external objects, but their existence and movement depend upon the needs and will of the subject. According to him, the regressive nature of autistic thinking cannot be explained as a recession on a graduated quantitative scale. Autism for him manifests rather a qualitative change, a turn to another sphere of dealing with reality in which the person functions in "(...) a mode of thinking that is neither illogical nor 'pre-logical'. It is simply logical in another, self-contained sense".¹⁸

17 Werner, Op. Cit., p. 379-418.

18 Ibid., p. 16.

The investigation of autism from the point of view of a cognitive dysfunction or a regression to lower levels of cognitive functioning did not bring to conclusive results. The abundance of argument about the nature of the change in cognitive functioning in autistic phenomena, and the scarcity of supportive data for the various hypotheses, brought many investigators to shift their investigation of autism to new avenues of approach.

Perhaps the most representative of this trend are the views of Cameron.¹⁹ In a critical evaluation of studies done on schizophrenic thinking he points out that no supportive data was found for the regression hypotheses neither for the abstract-concrete dichotomy. According to him autism represents a functional impairment of communication, and a condition of social disarticulation. Primarily, it manifests a process of desocialization in which the individual has given up effective social contact and turned to a world of communicative privacy and organized fantasy.

In Cameron's²⁰ conception of thought processes the most important dimension is the social, public versus the

19 Norman Cameron, "The Functional Psychoses", in J. McV. Hunt, (Ed.), Personality and the Behavior Disorders, Vol. 2, New York, Ronald Press, 1944, p. 861-921.

20 -----, The Psychology of Behavior Disorders: A Biosocial Interpretation, Boston, Houghton Mifflin, 1947, p. 486-489.

private, autistic. Autism is thus conceived of by him as a behavioral organization, wholly structured in terms of imagined activities and persons, and operating within a fantasied context. He maintains that autistic thinking is as abstract as normal and its main characteristic is not that of a cognitive dysfunction, but rather lies in the fact that it is not shaped by social norms and is not monitored from the point of view of outside society. Essentially, autism manifests the person's effort to hold on to private meanings and the disregard of the social norm.

A similar but much broader view on the meaning of autism is provided by Sullivan.²¹ His particular conception of autism is closely related to his personal view on the nature of experience and personality development. Life, according to him, is a dynamic process of overt and covert interpersonal communication, and a constant striving after meaning, both based on the primary need for relief of anxiety. Development, as conceived by him, is a gradual process of socialization through consensual validation, whereby the growing individual learns the socially shared meanings of words and events and accepts them as a standard for his participation in society and for self-realization. In this

²¹ Harry Stack Sullivan, The Interpersonal Theory of Psychiatry, New York, Norton, 1953, xviii-393 p.

context autism represents the unsocialized, and uncommunicative mode of elaboration of events and manifests the individual's inability or unwillingness to give up his private meaning of experience. While in early childhood this unacculturated state of symbol activity is a normal condition and an expression of the child's parataxic mode of experience, later in life it manifests the person's difficulties in social accommodation and his objection to relinquish or submerge his private meanings.

Contrary to Bleuler,²² Sullivan²³ does not conceive of autism as a manifestation of wishful thinking. Its positive value is considered by him to be in allowing the person, by relative withdrawal from interpersonal communication, to experience privately past events and thus to achieve freedom from anxiety and a better insight into his role played in interpersonal relationships. In its pathological manifestation, on the other hand, autism is an expression of uncanny emotions, of social dissociation, and a regression to the parataxic mode of experiencing.

Closely related to the above interpretations of autism are also the views of Piaget²⁴ and

22 Bleuler, "Autistic Thinking", Op. Cit., p. 399-437.

23 Sullivan, Op. Cit., p. 346-350.

24 Jean Piaget, The Language and Thought of the Child, New York, Meridian Books, 1953, 251 p.

Newcomb.²⁵ The unifying point in all of them is the basic conception that normativeness of meaning and perception develops through interpersonal communication and social experience. Autism is thus conceived as a primary, unsocialized mode of thinking to which Piaget²⁶ attributes inability to communicate one's thoughts, and limitation of understanding. According to him this type of thinking is possible only in early childhood at a level of development when neither socio-linguistic communication nor social interchange of thought is yet possible.

Newcomb,²⁷ on the other hand, maintains that both socialized thinking and autism are acquired in a social matrix. The personal distortion of meaning is, according to him, a result of barriers to communication that develop from a fixed perception of self-other relationships. He draws a distinction between two kinds of autism: one which is a result of a turn to individual privacy and brings to isolation from social reality; the other, a socially shared autism, which represents a kind of shared insulation and is reinforced by socially accepted attitudes. Although in both

25 Theodore M. Newcomb, "Autistic Hostility and Social Reality", in Alfred E. Kuenzli, (Ed.), The Phenomenological Problem, New York, Harper & Brothers, 1959, p. 199-229.

26 Piaget, Op. Cit., p. 63-65.

27 Newcomb, Op. Cit., p. 199-229.

perception of reality is distorted the socially shared autism does not separate the individual from his society.

A partially similar view to that of Newcomb,²⁸ but in a context of a different theoretical orientation, is expressed by Murphy.²⁹ His views are the most representative of the New Look movement in perceptual research which tried to understand cognitive processes and particularly perception in terms of needs. His basic opinion is that need determines perception. He writes:

Needs are present before one opens his eyes, before a voice strikes the ear. Needs determine how the incoming energies are to be put into structured form. Perception, then, is not something that is first registered objectively, then 'distorted'. Rather, as the need pattern shifts, the stage is set, minute by minute, for quasi-automatic structure-giving tendencies that make the percept suit the need. (...) The needs are always controlling; perception, instead of being the lawgiver, takes orders from the need.³⁰

The individual's psychological reality, according to Murphy,³¹ is not a stable matrix composed of a systematic and orderly accumulation of verified data and inference but, rather, does it represent a constant struggle for need

²⁸ Newcomb, Op. Cit., p. 199-229.

²⁹ Gardner Murphy, Personality: A Biosocial Approach to Origins and Structure, New York, Harper and Brothers, 1947, p. 362-390.

³⁰ Ibid., p. 377-378.

³¹ Ibid., p. 362-390.

satisfaction and a yielding to a painful compromise between the amount of information and the intensity of the need. But, essentially, he sees in every individual two ways in which needs relate to perception. One is of a delayed nature, whereby needs are satisfied in the long run through adaptive behavior. The other is of an immediate nature, whereby the perceptual world is molded and patterned, through past experience, so that it conforms directly to the need.

This movement of perception in particular, and of the cognitive processes in general, in the direction of immediate need satisfaction is designated by Solley and Murphy³² as autism. Essentially it represents one's effort to establish reality relationships after his own meanings; one's struggle to be master of what one senses. Autism, as Murphy³³ observes, does not modify sensory elements it only alters structural relationships, and autistic phenomena of daily life are matters of relative displacement, of figure-ground modification, and of new anchorage points.

Murphy³⁴ differentiates between three kinds of autism. One, the autism of daily life, manifests itself in relatively

32 Charles A. Solley and Gardner Murphy, Development of the Perceptual World, New York, Basic Books, 1960, p. 59-78.

33 Murphy, Op. Cit., p. 372.

34 Ibid., p. 362-380.

minor distortions of reality but does not imply social withdrawal, neither a turn to a private world. The second, the socially shared autism, represents the acceptance through education and socialization of prevailing group attitudes without real contact with reality, and manifests one's need for social protection. The third, observed only in psychopathological cases, manifests a withdrawal to a private world, separation from social reality, and finding satisfaction in symbolic thinking. All three of them, as Murphy observes are:

(...) based partly upon failure to distinguish outer from inner, partly upon the empirical fact that one can to some degree control the inner world and transfer the 'control attitude' to the similar phases of the outer world, and partly upon ordinary autisms, the continual structuring of life situations in terms of the ways one wants them to be.³⁵

But the fundamental characteristic of autism in all its manifestations is that the individual is not aware of the affective distortion of perceptual reality. Autism, he maintains, manifests the individual's idiosyncratic drive satisfactions which one foregoes only under social pressure; both in the developmental meaning of the concept and in immediacy of social relationships.

³⁵ Murphy, Op. Cit., p. 383.

Paradoxically enough, although one finds in Murphy's³⁶ work the most extensive theoretical and experimental use of the concept of autism, the concept itself is somewhat vague and ill-defined. His basic tenet that all behavior is drive-motivated and all cognitive processes are to some extent shaped by the pressure of biological or psychogenic needs is no longer doubted. But this statement only indicates the significance of motivation or of driving forces in cognition; it does not explain the character and mode of operation of the motivating forces, nor does it make place for a clear differentiation between normal cognitive processes and autism.

Klein³⁷ in an extensive critique of the need-theory of perception points out that idiosyncrasies in perceptual and cognitive functioning should not be considered as autism. According to him, veridicality of perception and cognition is rather a laboratory concept. In life people show idiosyncratic, preferred attitudes in reality relationships, which express a personal outlook on the world, a cognitive style of reality testing. In his opinion the activity of the need consists not simply of arousal of the organism or of pushing it to need-satisfaction behavior. It includes

³⁷ George S. Klein, "The Personal World Through Perception", in Robert R. Blake and Glenn V. Ramsey (Eds.), Perception: An Approach to Personality, New York, Ronald Press, 1951, p. 328-355.

specific ways of dealing with the environment which, developmentally viewed, build the experiential matrix of the individual and develop cognitive strategies of reality contact. On the physiological level of explanation it involves the sensory-tonic patterning of events which regulate one's sensory thresholds. On the psychological level of explanation it involves the development of accommodative structures which underly the cognitive style of commerce with environment.

In other words, idiosyncrasy in reality relationships is considered by Klein³⁸ a normal expression of subject-object interaction. Autism, on the other hand, is a manifestation of a break in one's cognitive style of reality relationships and is considered by him a pathological phenomenon. The fundamental characteristic of autism is that it is not a reality-oriented and adaptive activity. Although in a very general sense it represents a regression, not every regression is considered by Klein as an indication of autism. Seeing things in a novel way under particular circumstances is not necessarily seeing them in a wrong way, nor is it necessarily an indication of withdrawal from reality and indulgence in wishful thinking. In his own words:

38 Klein, Op. Cit., p. 328-355.

Behavioral regression involves the adaptive aims associated with earlier goal sets and concepts, but with these it invokes earlier adaptive means. Therefore not all instances of regression must be taken to represent a helpless capitulation to drive satisfaction at the cost of adaptiveness.³⁹

In recent years another use of the concept of autism came to the fore in psychological literature. Kanner⁴⁰ applied this concept to describe a very rare disorder in children who from the beginning of extrauterine life are aloof, withdrawn, appear to be living in a private world, and obstruct any attempt to come in social contact with them. He named this clinical entity early infantile autism to stress the children's indifference to the environment, particularly the social environment, and their insistence on the preservation of sameness.

Although in the last two decades a great amount of publications appeared which dealt to a greater or lesser extent with this clinical entity, no consistent theory has been advanced to account for early infantile autism. The only attempt to give a theoretical outline to the central characteristics of this clinical picture one finds in

³⁹ George S. Klein, "Cognitive Control and Motivation", in Gardner Lindzey, (Ed.), Assessment of Human Motives, New York, Rinehart, 1958, p. 105.

⁴⁰ Leo Kanner, "Autistic Disturbances of Affective Contact", in The Nervous Child, Vol. 2, 1943, p. 217-250.

Mahler.⁴¹ According to her autism manifests: firstly, impersonality of cognitive functioning and especially impersonality of the perception of human beings; secondly, lack of reality modification and inability to adjust to any change in environment; and thirdly, predominance of proprioceptive over peripheral sensation. It represents thus a pre-ego, or ego-nucleus level of behavior characterized by lack of polarization between the ego and non-ego, especially the human, and an absence of ego synthesis.

Mahler, et al.⁴² consider early infantile autism to represent a fixation at a most primitive phase of extra-uterine life. According to them it manifests a defense attitude by which the children try to shut out the potential sources of sensory perception, particularly the infinitely variable ones of the living world, which demand an emotional social response.

2. The Genesis of Autism.

In the first part of this chapter four major views on the meaning of autism were presented. The first approach

⁴¹ Margaret S. Mahler, "On Child Psychosis and Schizophrenia: Autistic and Symbiotic Infantile Psychoses", in The Psychoanalytic Study of the Child, Vol. 7, 1952, p. 286-305.

⁴² -----, Manuel Furer, Calvin F. Settlage, "Severe Emotional Disturbances in Childhood: Psychosis", in Silvano Arieti, (Ed.), American Handbook of Psychiatry, Vol. 1, New York, Basic Books, 1959, p. 816-839.

stresses the cognitive aspect of autism, the second the social aspect, the third the need-dynamic aspect, and the fourth, constricted to a particular clinical picture, stresses a kind of pre-socialized aloneness as a result of fixation on a pre-symbiotic stage of development. Viewed from a different angle, the above presented theoretical formulations illuminate two basic approaches toward the understanding of the meaning of autism: a clinical and an experimental. The clinical conception of autism stresses the turning away from the real world and a fixation at, or regression to a level of cognitive functioning, characterized by unreflectiveness, timelessness, and concreteness. The experimental conception, on the other hand, conceives of autism as a nonveridical cognitive functioning due to an intensity of needs from within or as a result of deprivation or overloading of stimulation from without.

When one turns to the question of the genesis of autism the sources available are very scarce. Essentially two basic views with regard to this problem are found in psychological literature. One view maintains that autism is basically a result of unchanneled affects and a primitive, undifferentiated level of mental functioning. As such its cradle is in infancy when no differentiation between subject and object, feeling and perception, and desire and action is yet possible. The other view maintains that autism is not

possible in early childhood and develops only at a later stage of mental development. According to Bleuler, autism is not possible in early childhood. He writes:

(...) in order to dream that one is a prince one must know that princes can have everything, including the most beautiful princess, and that their destiny is to live the carefree life of a king. In order to dream oneself rich, one must know that money can buy many good things.⁴³

In his opinion, although autistic mechanisms are inborn to be able to function they require a certain matrix of presentation-material of the external world, a certain complexity of cognitive organization, and a complex memory. He does not conceive of autism as an instantaneous, diffused psychic reaction to actual impinging external situations, nor as a primary psychic function out of which logical thinking develops through a turn to reality and repression of inner drives, but, "At a certain level of development, the autistic function is added to the reality-function and develops with it from there on."⁴⁴

Developmentally viewed thus autism is not possible before some knowledge about the external world is acquired, before some values are formed and, as Bleuler⁴⁵ points out, before the child is able to turn away from reality and indulge in imagination.

43 Bleuler, "Autistic Thinking", Op. Cit., p. 432.

44 Ibid., p. 427.

45 Ibid., p. 421.

The same view on the genesis of autism, although expressed in a different theoretical context, is presented by Murphy.⁴⁶ In his discussion of autistic perception he maintains that autism is possible only when the third level of cognitive activity develops. Autism, according to him, is not possible at the first, physiognomic level of cognitive functioning because at this stage the drive-satisfying character of the objects experienced is simply an aspect of the perceptual whole. At the second level of cognitive functioning autism is not possible because, according to him, the cognitive elements in primary conceptualization are relatively independent of the affective. Autism is possible only at the third level, when affective elements are wrought into the total picture in which cognitive integration is being achieved, and markedly distort the cognitive picture of reality without the observer being aware of it.

The opposite view, namely, that autistic thinking starts with the beginning of postnatal life and constitutes the primary, undifferentiated and drive-compelled stage of normal cognitive functioning is, essentially, based on classic psychoanalytic theory, and particularly on Freud's⁴⁷

46 Murphy, Op. Cit., p. 362-390.

47 Sigmund Freud, The Interpretation of Dreams, New York, Basic Books, 1955, translated by James Strachey, p. 509-621.

conceptions of primary process and the pleasure principle. According to him, thinking in early mental life, under the domination of the primary process, is unreflective, and strives only to recapture, through hallucination, perceptions which are linked with satisfaction. It is only during the course of life that the secondary process unfolds under which domination thinking becomes reflective, shows time perspective, and uses abstract concepts corresponding to reality relations. But, essentially, thought, whether under the domination of the primary process or the secondary process, manifests a wishfulfilment. Under the former, the wishfulfilment is immediate and is achieved through inner cathexis and the establishment of, what Freud⁴⁸ calls, a perceptual identity of the object or event that brought satisfaction in the past. Under the latter, wishfulfilment is delayed until the object of satisfaction is recovered in the external world. According to him, "Thought is after all nothing but a substitute for a hallucinatory wish; (...), since nothing but a wish can set our mental apparatus at work."⁴⁹

Both the primary and secondary process are conceived of as ideal conceptions that define the extremes of a logical continuum but do not constitute a description of an empirical

48 Freud, Op. Cit., p. 566.

49 Ibid., p. 567.

possibility. Any actual thought process, even that of an infant or a schizophrenic, has to be located somewhere in between the two poles. But in its purest possible form the primary process manifests itself in early childhood and in dream. It is in these conditions that wishfulfilment through perceptual identity and complete disregard of reality is possible at best.

In the Freudian conceptual system autism thus rules early mental life, and its first manifestation is possible when a once satisfied need arises a psychical impulse, which is considered by Freud to be a wish,

(...) which will seek to re-constitute the mnemonic image of the perception and to re-evoke the perception itself, that is to say, to re-establish the situation of the original satisfaction.⁵⁰

A corresponding view one finds also in Piaget's writings. According to him autism is possible only in early mental life which reveals a lack of differentiation between object and subject, perception and feeling, cause and action. It is considered by him a kind of thought in which truth is confused with desire; and in early life it is desire that dominates mental life. At this level of mental functioning:

50 Freud, Op. Cit., p. 566.

To every desire corresponds immediately an image or illusion which transforms this desire into reality, thanks to a sort of pseudo-hallucination or play. No objective observation or reasoning is possible; there is only a perceptual play which transforms perceptions and creates situations in accordance with subject's pleasure.⁵¹

3. Summary.

The different theoretical formulations, presented above, manifest a wide array of attempts to clarify the problem of the meaning and genesis of autism. Without minimizing the importance of the different theories one rather wonders whether they speak about the same phenomenon. In autism the thinking process is strongly influenced by affect, but affective thinking is not the basic characteristic of the phenomenon. According to Bleuler,⁵² many phenomena of affective thinking do not fall into the category of autism. The delusions of the manic-depressive, the ideas of the melancholic, careless thinking of normal people which leads to false conclusions - all these phenomena represent the influence of affect, but do not manifest autism. The basic characteristic of autism, according to him, is that it consists in affective and wishful thinking which is coupled with a definite withdrawal from the external world.

⁵¹ Jean Piaget, The Child's Conception of Physical Causality, London, Kegan, 1930, p. 202.

⁵² Bleuler, "Autistic Thinking", Op. Cit., p. 405, 419.

Bruner, et al.⁵³ also stress this point, although in a different context. They differentiate between cognitive functioning that comes to satisfy an immediate need and cognitive functioning that represents an effort after empirical verisimilitude. In both, speaking in experimental language, the results are nonveridical, but the latter does not manifest a need satisfaction, rather it is erroneous thinking congruent with one's attitudes, values, and common experience.

Another corollary of this problem is expressed by Solley and Murphy:

One should not conclude that affective tone is the difference between veridical and nonveridical perception. Both types of perception may be infused with affect, and autistic perception may coincide with veridical perception.⁵⁴

The difference thus between affective thinking, or, as some call it, careless thinking, erroneous thinking, thinking that follows the logic of verisimilitude, and autism is not in preponderance of affect in one or the other. The main difference lies in the fact that while the former does attempt to account for reality but in an inadequate way, autism is concerned with reality only insofar as it can

⁵³ Jerome S. Bruner, Jacqueline J. Goodnow and George A. Austin, A Study of Thinking, New York, Wiley, 1956, p. 104-105.

⁵⁴ Solley and Murphy, Op. Cit., p. 78.

use it to satisfy a wish and excludes it wherever it hinders its purpose.

The differentiation between affective thinking and autism is of importance when one attempts to investigate the genesis of autism. Affect is part and parcel of the matrix of early experience, but should mental functioning in early life be considered as autism? The basic idea that autism manifests the working of primary processes and as such constitutes the child's early mental functioning which is dominated by primary processes, comes from the classic psychoanalytic theory. The paradox of it is that a great number of psychologists accept the idea without questioning its sources. The classic psychoanalytic formulation of early development is not based on empirical evidence. Early development is rather structured and conceived of in a way that it fits a theory of sleep and dream interpretation of the adult. Wishfulfilment, withdrawal of cathexis, ego regression, perceptual identity instead of thought identity - all these concepts fit a theory of dream interpretation. They were implanted into the field of early development because of the need to support the basic thesis that, "Dreaming is a piece of infantile mental life that has been superseded."⁵⁵

⁵⁵ Freud, Op. Cit., p. 567.

Even the opinion of Bleuler⁵⁶ that autism is not possible in early childhood is not fully elaborated and shows many contradictions. Actually his assumption is based on an objection to psychoanalytic conception of hallucinatory gratification in early childhood and not on empirical study of child development. His two statements that autism requires a complexity of cognitive organization and that a child of age two is fully ruled by autism are contradictory in nature and rather manifest a narrow understanding of early mental functioning. His examples for autism at the age of two are the playing and daydreaming of the child. It seems that Bleuler⁵⁷ commits here an error of adultomorphism and contradicts his basic definition of autism.

First, a child, age two, cannot possibly daydream. Daydreaming involves two functions: withdrawal from the external world and bringing forth of mental representations without the use of speech. At this stage the child cannot withdraw from something which is psychologically not yet distinct from him, nor is he able, according to Piaget,⁵⁸ to bring forth mental representations without using speech. Second, the play of a child, particularly in early life, is

⁵⁶ Bleuler, "Autistic Thinking", Op. Cit., p. 426.

⁵⁷ Ibid., p. 433.

⁵⁸ Piaget, The Language and Thought of the Child, Op. Cit., p. 58-62.

as Buehler⁵⁹ points out an expression of his reality-function; it cannot thus be considered as autism.

The thesis of this writer is, that autism is not possible in early childhood. It is neither possible as a phenomenon of early cognitive functioning, nor as a psychopathological syndrome.

It seems that the possibility of behavior and communication as evoking rather than conveying meaning is overlooked in the attempts to understand early childhood behavior. It is the hypothesis of this writer that early childhood behavior patterns when evaluated by an adult evoke in him the notion of autism. When the child's behavior is studied in its own frame of reference and not judged against adult conventional standards, there is no basis for the application of the concept of autism to it. Behavior and verbalization in early childhood are not metaphoric and allegory-like expressions deliberately invented, but are rather the only possible expressions of the child's conception of reality.

59 Karl Buehler, The Mental Development of the Child, London, Routledge and Kegan, 1930, p. 67.

CHAPTER II

THE COGNITIVE ASPECT OF EARLY CHILD DEVELOPMENT

In this chapter an attempt will be made to answer the question whether the term autism can be applied to describe the cognitive functioning in early childhood.

In every attempt to answer a scientific question, according to Rapaport,¹ one has to be sure of two things: first, that one understands the question; second, that the answer will be at least in part supported by evidence. To comply with the above principles of scientific discipline the first part of this chapter will concern itself with the clarification of problems related to cognitive theory, cognition, and its developmental aspect. This will be followed by a discussion in which this writer intends to prove, through elaboration of scientific evidence, that the term autism cannot be used to describe cognitive functioning in early childhood. Perhaps one note of clarification is needed at this point. It is not the intention of this writer to produce a systematic treatise on cognition. Rather, it is, to use Bartlett's² expression an attempt

¹ Anatol Rapaport, "An Essay on Mind", in Jordan M. Scher, (Ed.), Theories of the Mind, New York, The Free Press of Glencoe, 1962, p. 271-304.

² Frederic Bartlett, Thinking: An Experimental and Social Study, New York, Basic Books, 1958, 203 p.

in interpolation, that is, the use of evidence to supplement evidence.

1. Trends in Contemporary Cognitive Theory.

The past fifteen years have witnessed a great revival of interest in cognitive theory. Cognition, once a core topic within psychology, was with the rise of stimulus-response psychology completely rejected as a problem for investigation. For behaviorism cognition was neither a psychological fact, nor a postulated behavior variable. Recently, after long years of exclusion from the body of scientific psychology, cognitive theory suddenly acquired a status of urgent importance. This change in attitude may be attributed to four major developments in psychology in the past two decades.

The first impact came with the dissolution of the classical schools of psychology. It brought about a retreat from peripheralism, operationalism and mechanical associationism as the sole criteria of psychological investigation and led to a recognition of the importance of mediation problems in psychology.

Another source of stimulation for research in cognition was a change in orientation in personality theory and the development of ego psychology with its stress on the study of the so-called synthetic functions of the ego.

Psychopathology is a third source of the revival of interest in cognitive theory and particularly in the developmental aspect of cognition. The divergent modes of thinking found in different clinical pictures puzzled many clinicians with regard to their nature and meaning. Logical, pre-logical, primitive, and paleo logical thinking, rationality and irrationality - were problems which prompted a general interest in the laws governing normal cognitive development.

Finally, the development of information theory was the last and perhaps the strongest source of stimulation which prompted a deep interest in cognition. This theory's extreme and mechanistic interpretation of the concept of mind, in terms of inputs and outputs of a communication system, and its basic postulate that man is a machine - and not a very perfect one because some computers think faster and more correctly - gave many psychologists the feeling that psychology in its effort to become a science deviated from its basic aim, the study of man. Essentially, information theory robbed man of his ancestry and of his human purposiveness. This prompted many psychologists to deepen their interest in the emergence of cognitive functions; the cognitive zero, to paraphrase Gesell and Amatruda,³ and the

³ Arnold Gesell and Catherine S. Amatruda, Developmental Diagnosis, New York, Harper & Brothers, 1941, xvi-496 p.

experiential content of cognition at different stages of development became an important topic for investigation. Or as Harris outlines it, for many investigators the immediate question for consideration was: "At what point in the scale of development may we justifiably exclude mind, and just where does mind, in the full sense, appear?"⁴

The change of attitude toward cognitive theory and the developmental aspect of cognition caught both cognitive theoreticians and developmentalists unaware and unprepared. Although cognitive theory had a long history of strife for inclusion in the general field of scientific psychology it had only a very meager experience in genuine research. The same situation prevailed in developmental psychology. In spite of the fact that maturation and learning have received quite intensive study, information regarding the phenomenology of early childhood was lacking. In almost all studies the normative approach prevailed and interest was focused on those observable aspects of the developmental process which occur with great statistical frequency and regularity. Ontogenetic patterning of behavior and study of responses which may be elicited at various ages constituted the main theme of investigation. Although such data is of value it

⁴ Errol E. Harris, "Mind and Mechanical Models", in Jordan E. Scher, (Ed.), Theories of the Mind, Op. Cit., p. 476.

did not augment a dynamic understanding of behavior in early childhood.

What does the field of cognitive theory represent today? The answer to this question is perhaps best found in Scheerer's definition. According to him cognitive theory is concerned "(...) with the problem of how man gains information and understanding of the world about him, and how he acts upon his environment on the basis of such cognitions".⁵ A closer inspection of the above definition reveals that it stresses three aspects of cognition: the intermediary aspect of cognition in organism-environment interaction; the intra-organismic aspect of cognitive processes, and the developmental aspect of cognition. The three elements also reflect the different trends in the study of cognition, present in psychological literature.

a) The Intermediary Aspect of Cognitive Processes.-

The major exponent of this approach toward the study of cognition is Brunswik.⁶ His theory represents an attempt to stratify topologically the determinants of cognition and stresses the importance of the "distal" reality in a

⁵ Martin Scheerer, "Cognitive Theory", in Gardner Lindzey, (Ed.), Handbook of Social Psychology, Cambridge, Mass., Addison-Wesley, 1954, p. 91.

⁶ Egon Brunswik, "Scope and Aspects of the Cognitive Problem", in Jerome S. Bruner, et al., Contemporary Approaches to Cognition, Cambridge, Mass., Harvard University Press, 1957, p. 5-31.

cognitive process. Environment, according to him, does not provide the organism with univocal cues. It is thus important in a study of cognition, as in every cognitive process, to understand properly the ecological validity. Topologically and molarly, he differentiates between the ecological and organismic phases of cognition. On the molecular level he proposes five major determinants: the distal stimulus, proximal stimulus, intraorganismic events, proximal reactions, and distal effects. On the functional level he conceives of three types of interlocking interactions in cognition: the distal-proximal, which is a purely intraecological; the proximal-peripheral, and the peripheral-central.

Brunswik's approach results from his objection to the traditional approach in psychological research in which the psychologist is preoccupied with the organism at the expense of the environment. He perceives of organism and environment as systems, each with its own properties, and calls to restore

(...) the proper equality of standards in the treatment of organism and environment - that is, the equality of subject and situation (or object) in which equal justice is done to the inherent characteristics of the organism and of the environment.⁷

7 Brunswik, Op. Cit., p. 6.

Heider⁸ is perhaps the most outstanding among those who approached the cognitive problem along the above considerations. His basic conclusion, after a study of the physical characteristics of the environment and their role in environment-organism interrelationships, is that distal order cannot be derived from proximal disorder. To properly understand the cognitive process one has to study the peculiarities of the relation between proximal and distal stimuli in the ecological phase of cognition. It is his opinion that the object of perception does not affect the sense organs directly but by means of mediation. He thus differentiates in a perceptual act between the object and the medium. In cognition of things, it is the mediator processes, movement which affect the sense organs, and it is the synthetic function of cognition to structure these movements. Accordingly, he maintains, the organism does not stand in the causal texture like a thing that is pushed and pushes other things; the organism can be said to live in a world of movement, and cognitively, in a world of thing-events, meanings.

⁸ Fritz Heider, "Environmental Determinants in Psychological Theories", in Psychological Issues, New York, International Universities Press, Vol. 1, No. 3, 1959, p. 61-84.

Another consideration of the stimulus problem in cognition one finds in Murphy's⁹ and Veatch's¹⁰ approaches. According to them the basic question with regard to the cognitive stimulus centers not only around its characteristic but also and mainly around its locus. They maintain that the primary stimulus in a cognitive process originates in the organism from a need or intention and the object in the environment has only a goal-value. The mere physical presence of an object does not presuppose a cognitive act; the thing present becomes known only if intentionality endows it with an intentional presence.

Essentially, the theoretical outlines, brought above, point out only the particular character and hierarchy of cognitive determinants, they do not explain the cognitive process. Attempts at such explanations one finds in theories concerned with the intraorganismic aspect of cognition.

b) The Intraorganismic Aspect of Cognitive Processes.- This field of consideration gave rise to three approaches in cognitive theory: the first studies the physiological

⁹ Gardner Murphy, Personality: A Biosocial Approach to Origins and Structure, New York, Harper & Brothers, 1947, xii-999 p.

¹⁰ Henry B. Veatch, "Minds: What and Where in the World Are They?", in Jordan M. Scher, (Ed.), Op. Cit., p. 314-329.

aspect of cognition; the second is concerned with the symbolic processes of cognition; and the third examines the dynamics of the cognitive processes.

The main representative of the first approach today is Hebb.¹¹ His contribution is important not because his theory is convincing but, rather, because his model of the neuro-physiological substratum in cognition complements many theoretical expositions of the problem. His theory attempts to bridge the gap between the details of neuro-physiology and the molar conceptions of behavior in psychology. Central to his theory is the problem of thought, with the emphasis on perceptual experience. He writes:

What is the neural basis of expectancy, or of attention, or interest? Older theory could use these words freely, for it made no serious attempt to avoid an interactionist philosophy. In modern psychology such terms are an embarrassment; they cannot be escaped if one is to give a full account of behavior, but they still have the smell of animism; and must have, until a theory of thought is developed to show how 'expectancy' or the like can be a physiologically intelligible process. (...) The desideratum is a conceptual tool for dealing with expectancy, attention and so on, and with a temporally organized intercerebral process. But this would have value if it did not also comprise the main facts of perception and learning.¹²

The key concept in his answer is the cell assembly, conceived as a closed system in which neural firing can

¹¹ D.O. Hebb, Organization of Behavior, New York, Wiley, 1949, xix-335 p.

¹² Ibid., p. xviii.

reverberate after the receptor input has ceased.

Any frequently repeated, particular stimulation will lead to the slow development of a 'cell-assembly', a diffuse structure comprising cells in the cortex and diencephalon (...), capable of acting briefly as a closed system, delivering facilitations to other such systems and usually having a specific motor facilitation. A series of such events constitutes a 'phase sequence' - the thought process. Each assembly action may be aroused by a preceding assembly, by a sensory event, or - normally - by both. The central facilitation from one of these activities on the next is the prototype of 'attention'.¹³

The cell assembly thus corresponds to an image; it is a representative and learned process, and cell assemblies, once established, get connected in sequences which correspond to a current in a stream of thought.

A completely different trend in the study of cognition one finds in Bruner's¹⁴ approach. He conceives of cognitive processes as the means whereby organisms achieve, retain, and transform information. Cognition is conceived by him simply as a coding process whereby one learns the probability texture of the environment. Once this is learned one can go beyond the given information by predicting its likely concomitants.

¹³ Hebb, Op. Cit., p. xix.

¹⁴ Jerome S. Bruner, "Going Beyond the Information Given", in Jerome S. Bruner, et al., Contemporary Approaches to Cognition, Op. Cit., p. 41-69.

Essentially, Bruner is a learning theoretician who stresses the what? before the how?. In every cognitive process, he says,

(...) one goes beyond the information given, one does so by virtue of being able to place the present given in a more generic system and (...) one essentially 'reads off' from the coding system additional information either on the basis of learned contingent probabilities or learned principles of relating material. (...) It follows from this that it is of the utmost importance in studying learning to understand systematically what it is that an organism has learned. This is the cognitive problem in learning.¹⁵

The process of finding out what is generic about a given situation so that one can deal with similar situations later consists essentially of being able to isolate the defining properties of each class of events to which the present situation belongs. This coding of categories is, according to Bruner et al.,¹⁶ the principal means by which a growing member of a society is socialized, for the categories that one is taught and comes to use habitually reflect the demands of the culture in which they arise.

Another approach toward the study of cognition through symbolic processes one finds in Osgood. His theory is a conceptual model based on a combined analysis of language and perception.

¹⁵ Bruner, Op. Cit., p. 49.

¹⁶ Jerome S. Bruner, Jacqueline J. Goodnow, and the late George A. Austin, A Study of Thinking, New York, Wiley, 1956, x-330 p.

It envisages two stages and three levels of organization between stimulus and response in the complete behavioral act. The first stage is what I shall call decoding, the total process whereby physical energies in the environment are interpreted by the organism. The second stage is what I shall call encoding, the total process whereby intentions of an organism are expressed and hence turned again into environmental events. The three levels of organization are assumed to apply to both sides of the behavioral equation, to both decoding and encoding: (1) a projection level, of organization, which relates both receptor and muscle events to the brain via 'wire-in' neural mechanism; (2) an integration level, which organizes and sequences both incoming and outgoing neural events; and (3) a representation or cognitive level, which is at once the termination of decoding and the initiation of encoding operations.¹⁷

Essentially, Osgood's theory is complementary to Heider's.¹⁸ In his two-stage process in cognition he interprets how, through decoding, a socially arbitrary noise or movement becomes associated with a representational process and acquires meaning. In the following stage of encoding, the representational process frees the person from the immediate here-and-now and associates it to socially communicative vocalization.

Although a behaviorist, his concept of the intra-organismic mediational process is not identified with a specifiable physiological locus. The mediation process for

¹⁷ Charles E. Osgood, "A Behavioristic Analysis of Perception and Language as Cognitive Phenomena", in Jerome S. Bruner, et al., Contemporary Approaches to Cognition, Op. Cit., p. 76-77.

¹⁸ Heider, Op. Cit., p. 61-84.

Osgood¹⁹ is an intervening variable with response-like and stimulus-like properties, and the representational character of the intervening variable provides a basis for a theory of cognition.

In recent years a new trend of cognitive research came to the fore in psychological literature. This new approach draws attention to cognitive controls and styles which condition and limit the influence of environmental forces and of tensions provoked by motives. Essentially, it is a study of cognitive structural constants which express the individual differences in man's cognitive behavior but do not imply misadaptation or autism. According to Gardner et al.²⁰ effective perception and effective adaptation does not imply uniformity and, on the other hand, veridicality does not safeguard from unrealistic experience. As Klein points out, the concept of veridicality can be mischievous if it leads to assume that there is a finality to perceptual development. "Perception pursues meanings, not exhaustive accuracy or totality."²¹ In fact this new trend calls for

19 Osgood, Op. Cit., p. 75-118.

20 Riley W. Gardner, et al., "Cognitive Control", in Psychological Issues, New York, International Universities Press, Vol. 1, No. 4, 1959, 185 p.

21 George S. Klein, "Cognitive Control and Motivation", in Gardner Lindzey, (Ed.), Assessment of Human Motives, New York, Rinehard, 1958, p. 104.

a recognition of cognitive controls in human behavior, which are functionally autonomous from the specific components underlying perception, recall, and judgment, and are operative despite the shifts in situational and behavioral contexts. They are conceived of as slow-changing, developmentally stabilized structures which govern the extent of informational feedback, and involve the application of automatized standards of adequacy to behavior or experience. In summary, as Gardner et al.²² point out, cognitive controls involve individually varying standards of adequacy within intention-guided encounters and provide instrumental means through which drive discharge and reality adaptation takes place. By being responsive to drive aims and to reality alike, the individual through development of cognitive controls attains a certain autonomy from drives and environment.

c) Developmental Theories of Cognition.- The theoretical outlines of cognitive processes brought above, represent the different trends in the study of cognition, present in psychological literature. The main difficulty manifest in the different approaches stems from the fact that cognition is an intraorganismic process and as such an unobservable phenomenon. All the theories can thus be viewed as logical inferences as to what happens in the

22 Gardner, et al., Op. Cit., 185 p.

"little black box", to use Osgood's²³ expression. Fundamentally, the above presentations are geared toward the understanding of cognitive processes in the adult. Although some writers sometimes refer to facts from child behavior, rather than to clarify it creates a new difficulty. What is usually overlooked by many writers is that, what for them constitutes a very generalized conceptual referral to a younger and more primitive way of relating to reality is for the developmentalist the bulk of his work. Thus the terms "child", "childhood" refer only to another, very global category of behavior, but they do not explain the essential characteristics of this category of behavior. The same applies also to the term "prelogical" used by many writers when they refer to the child's thinking; it refers to another mode of thinking but it does not clarify what is meant by this. What is then the nature of cognitive functioning in childhood? There are only a few full theoretical bodies that deal directly with the laws governing the emergence and development of cognition in early childhood. The most representative are the theories of Piaget,²⁴ Werner,²⁵ and Hartmann.²⁶

²³ Osgood, Op. Cit., p. 75.

²⁴ Jean Piaget, The Origins of Intelligence in Children, New York, Norton, 1963, 419 p.

²⁵ Heinz Werner, Comparative Psychology of Mental Development, New York, International Universities Press, 1957, (revised edition), xii-564 p.

²⁶ Heinz Hartmann, Ego Psychology and the Problem of Adaptation, New York, International Universities Press, 1958, xi-121 p.

1) Piaget's Theory.- Piaget's main subject of study is expressed in his following statement:

The subject of our investigation is intellectual evolution - that is, the development of knowledge and of its different modes, the genesis of the forms of thought, and their adaptation to experience, and the rules which they obey.²⁷

Piaget's theory of cognitive development is based on a model of biological adaptation. His basic postulate is that life, whether biologically or psychologically conceived of, is a continuous creation of increasingly complex forms in the living organism's never ceasing interaction with environment. Life is thus an expression of biological and mental epigenesis, and intelligence is conceived of as an extension of physiological adaptation. Psychology, according to Piaget, starts with the birth of the infant; at this point life organization and mental organization only constitute one and the same thing. Both are encapsulated in the concept of reflex, a hereditary mechanism which is clearly organized and virtually adapted but has never functioned. From this point intelligence, through a gradual process of maturation and interaction with the environment, takes over the role of directing activity and adaptation. In other

²⁷ Jean Piaget, "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life", in Edward Douglas Adrian et al., (Eds.), Factors Determining Human Behavior, Cambridge, Mass., Harvard University Press, 1937, p. 32.

words, intelligence is born out of the biological functioning, transcends its biological background, directs the cognitive function of the individual toward incorporation of the collective system of knowledge, and, developmentally, comes to an end with biological maturity. On the psychological level of explanation the development of intelligence is perceived by Piaget as an orderly and sequential movement from a primitive stage in infancy where the world

(...) is not made up of permanent objects with autonomous trajectories, but of moving perceptive pictures which return periodically into non-existence and come back again as the functional results of the proper action.

To a stage of logic of relationships

(...) which coordinates the inter-individual relationships with the intra-individual ones into a system capable of assuring the permanence which is necessary to the invariables of experience.²⁸

Intelligence is thus a special instance of adaptation based on the interaction of two fundamental elements: an invariant and a variable. The first is a functional nucleus of the intellectual organization, comes from the underlying biological organization, and orients the whole of "(...) successive structures which the mind will then work out in its contact with reality".²⁹ The invariant element

²⁸ Piaget, "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life", Op. Cit., p. 37,45.

²⁹ -----, The Origins of Intelligence in Children, Op. Cit., p. 3.

constitutes of two complementary and inseparable functions: assimilation and accommodation. By assimilation Piaget describes the function of incorporation; accommodation, on the other hand, consists in proper adaptation of the incorporated to the organism. Due to these two complementary and invariant functions the active role of the individual in adaptation is made possible.

The variable element, on the other hand, represents the constantly changing representational content of experience and modes of interaction with the environment. In essence, the variable element is a result of maturation and experience. For Piaget³⁰ development of intelligence is a function of an internal process which depends upon maturation and resulting possible activity. Although the nature of the organism is such that it needs the interaction with the environment for its survival, it is the maturational level of the organism that assigns value to objects in environment in terms of their assimilability and establishes the mode of their accommodability. In fact, it is not the environmentally imposed problem which decides the mode of the environment-organism interaction. Rather, the actual level of intellectual maturity and consequently the experiential matrix at a given moment are the main factors which

³⁰ Piaget, The Origins of Intelligence in Children, Op. Cit., 419 p.

specify the cognitive content and the response of the organism.

The variable element leads the process of intellectual development through three major stages: the stage of sensorimotor intelligence, the stage of concrete operations, and the stage of formal operations.

The sensorimotor stage brings the child from physiological assimilation, through six hierarchical phases, to beginnings of interiorized schemata at the end of the second year of life. In the second stage, which lasts till the age of eleven, the child's thinking becomes decentred from perception and action. With greater autonomy of the central processes come both differentiations and coordinations of the action-images into systems which permit classifying and ordering. In the third stage, which ends around the age of fifteen, the child achieves the final steps of decentring and reversibility and he is able now to mentally operate detached from the empirical situation. At this stage the child becomes essentially adult; he can operate now on the basis of an incorporated system of logic of relationships; he needs no longer to confine his attention to existing reality.

Complementary to the above schema of cognitive development, Piaget³¹ provides also a dynamic interpretation of organism-environment interaction. In this frame of reference intellectual development is defined as a passage from a stage of initial lack of differentiation between self and the outside world - autism, through a stage of realism which consists in ignoring the existence of self and thence regarding one's own perspective as immediately objective and absolute, to a stage of being able to distinguish between what comes from self and what forms a part of external reality as it can be observed by everyone - objectivity.

At first the child has no image either of his self or of the external world. These two dimensions take shape gradually through more and more definite elaboration. Differentiation comes about in a parallel way: the child gives a structure to the external world inasmuch as he becomes aware of his self and, reciprocally, he builds his self image as he becomes conscious of existences different from his own.

ii) Werner's³² Theory.- Werner's conception of development is a very broad one. According to him,

31 Jean Piaget, The Child's Conception of the World, London, Routledge and Kegan, 1951, p. 34.

32 Werner, Op. Cit., xii-564.p.

developmental psychology does not restrict itself either to ontogenesis or phylogenesis, but seeks to coordinate within a single framework forms of behavior observed in many different fields of investigation. Developmental studies, according to him, have two basic aims. One is to grasp the characteristic pattern of each genetic level. The other is to establish the genetic relationship between these levels and the direction of development. His own concept of development is based on two postulates:

(...) wherever there is life there is growth and development, that is, formation in terms of systematic, orderly sequence.

(...) wherever development occurs it proceeds from a state of relative globality and lack of differentiation to a state of increasing differentiation, articulation, and hierarchic integration.³³

The first postulate proposes a certain manner of viewing behavior in its manifold manifestations. The second is an orthogenetic principle and pertains more specifically to developmental psychology. In this light, development is viewed in a twofold way. On the psychophysical level it proceeds from a relative lack of differentiation between subject and object to a polarity of subject and object. On the behavioral plane it is conceived of as a process of one's freeing himself from the domination of the immediate

³³ Heinz Werner, "The Concept of Development from a Comparative and Organismic Point of View", in Dale S. Harris, (Ed.), The Concept of Development, Minneapolis, University of Minnesota Press, 1957, p. 125, 126.

stimuli and gaining the capacity for delay and planned action, that is, a transition from passive reactivity to a willful acting in and upon the environment. Ontogenetically, Werner³⁴ differentiates only between two levels: the child's level of mental functioning and the adult's level. In his development, the child grows out of his child's world into an alien world of adults; his behavior is a result of an interaction between these two worlds. What is then the child's world as conceived of by Werner?

The child's world is above all a world of action, a behavioral sphere in which everything is framed in terms of handiness and unhandiness, of efficaciousness and inefficaciousness.(...)

The childlike world, moreover, is ego-centered and concrete; it is a world of nearness at hand. The younger the child the 'nearer' it is, and the distance separating subject and object increases with age.³⁵

The child impresses himself on the world through motor-affective behavior. Life space is not identical with geographical space, and content is interpreted according to the child's primitive meaning. The child's spheres of reality are essentially emotional-reactive, less markedly characterized by an awareness of objective qualities, and in consequence of this less differentiated.

³⁴ Werner, Comparative Psychology of Mental Development, Op. Cit., xii-564 p.

³⁵ Ibid., p. 382-383, 383.

The child's primary matrix of mental activity is a blurred state of general awareness, a sensorium commune. Out of this matrix cognitive activity begins to emerge. The developmental process of cognition starts as a result of two movements: the movement of the object as manifest in its functional nature, and correspondingly the motor-affective, responsive movement of the organism. Inasmuch as imagery and conception depart from syncretism of content, diffusion of structure, and physiognomy of perception, the more it is given to intentionally determined activity and becomes more flexible in apprehension of relationships.

In general, human development is a process of de-personalization, that is, a process whereby the growing child imposes less on the environment and de-personalizes it through gaining a wider polarity and more articulate identity in subject-object interaction. But with development the lower, more primitive levels of cognitive functioning do not vanish. The same normal individual, depending on conditions and mood, may be characterized by entirely different levels of cognitive development. Mental life has different strata, and

(...) primitive modes of behavior in the normal adult not only appear under certain extraordinary conditions, but are continually present as the basis of all mental being, and are of vital importance in supporting the highest forms of mentality.³⁶

iii) Hartmann's³⁷ Theory.- Hartmann's theory of ego development represents the main ideas of the ego psychology movement of which he was the anticipator and originator. The theory also represents a major change in psychoanalytic thought with regard to the origin and function of the ego.

The term "ego" is one of the most ambiguous concepts in psychological literature and much confusion has arisen because of the lack of a clear and precise definition. According to Rapaport, "(...) the ego refers to aspects of behavior which are delayable, bring about delay, or are themselves products of delay".³⁸ The definition stresses the basic aspect of the ego as conceived of in psychoanalytic theory - restraint, but it does not explain the characteristics of behavior to which it refers. In the psychoanalytic theory the concept of ego underwent many changes but two characteristics remained constant: it is born out of the id's conflict with reality and its main task is the control over

³⁶ Werner, Comparative Psychology of Mental Development, Op. Cit., p. 4.

³⁷ Hartmann, Op. Cit., xi-121 p.

³⁸ David Rapaport, "Introduction: A Historical Survey of Psychoanalytic Ego Psychology", in Erik H. Erikson, "Identity and the Life Cycle", in Psychological Issues, New York, International Universities Press, Vol. 1, No. 1, 1959, p. 5.

the demands of the instincts for the purpose of self-preservation.³⁹ The psychoanalytic basic conception of the ego is that of a coherent mental organization imposed upon the primary processes solely by reality experience and which main task is to find a way to resolve conflicts which arise either because of excessive instinctual demands, or excessive pressure from the external world.

Hartmann conceives of the origin and development of the ego in a different way. He writes:

We must recognize that though the ego certainly does grow on conflicts, these are not the only roots of ego development. (...)

Not every adaptation to the environment, or every learning and maturation process, is a conflict. I refer to the development outside of conflict of perception, intention, object comprehension, thinking, language, recall-phenomena, productivity, to the well-known phases of motor development, grasping, crawling, walking, and to the maturation and learning processes implicit in all these and many others. (...) I propose that we adopt the provisional term conflict-free ego sphere for that ensemble of functions which at any given time exert their effects outside the region of mental conflict.⁴⁰

Hartmann is very cautious in his formulations. In essence he is a psychoanalytic theoretician and every change in theory must find its proper place in the general body of the psychoanalytic theory and be expressed in terms accepted

³⁹ Sigmund Freud, An Outline of Psychoanalysis, New York, Norton, 1949, translated by James Strachey, 127 p.

⁴⁰ Hartmann, Op. Cit., p. 7-9.

by this theory. He therefore conceives of his major task to investigate how "(...) mental conflict and 'peaceful' internal development mutually facilitate and hamper each other".⁴¹

The main importance of his statement lies in the fact that by attributing to a part of the ego inborn roots, independent of instinctual drives, Hartmann directs the attention to the problem of reality relationships in general, and interpersonal relationships in particular, which remained outside the scope of psychoanalytic theory. By turning to the problem of adaptation he also introduces into the psychoanalytic theory of ego development the dimension of the future, and the concept of the ego is brought more and more to coincide with cognition.

Basic to Hartmann's⁴² theory is the conception of a primary, undifferentiated phase in human development during which both the id and the ego are gradually formed. He considers this stage to be a physiological phase where body needs and undifferentiated sensations reign supreme. At this point through maturation of perceptual equipment and partial deprivation of need satisfaction the primary cognitive processes start. The former allows recognition while the latter brings to expectancy-tension, and the interaction of both allows for delay of discharge and the beginning of cognition.

⁴¹ Hartmann, Op. Cit., p. 11.

⁴² Ibid., xi-121 p.

According to Hartmann et al.,⁴³ the ego, although its development is primarily based on maturational processes, cannot start to function without the help of the external world. They attribute the important role in ego development to mother. Through constancy and repetitiveness of appearance she becomes the object most highly cathected in the infant's world, and through consistency of behavior she becomes a model of the external world and an anchor for object relationships. At the end of the first year, according to the above writers, the child has formed lasting object relations. From here, through development of motility, the child's behavior becomes more and more independent of the presence or absence of the mother; and abstraction from the concrete situation becomes possible.

c) Summary.- Brunswik's⁴⁴ topological stratification of the determinants of the cognitive process becomes a very useful tool for comparison of different developmental theories of cognition. In a sense Piaget⁴⁵ and Hartmann,⁴⁶ both

⁴³ Heinz Hartmann, Ernst Kris, and Rudolph M. Loewenstein, "Comments on the Formation of Psychic Structure", in The Psychoanalytic Study of the Child, Vol. 2, 1946, p. 11-38.

⁴⁴ Brunswik, Op. Cit., p. 5-31.

⁴⁵ Piaget, "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life", Op. Cit., p. 32-48.

⁴⁶ Hartmann, Op. Cit., xi-121 p.

conceive of a trend toward distal reality in their conception of cognitive development; a course that takes the developing human being from inherited physiological adaptiveness through concreteness of proximal differentiation to abstraction and clarity of distal reality. But here the similarity between the two theories ends. Piaget's theory is a normative outline of the unfolding of a cognitive tool - logic of relationships - which leads the individual to a predetermined goal - the incorporation of a collective system of knowledge. In his theory the child and the environment are anonymous and undifferentiated, both are the average expectable, both are constant. The dynamism of organism-environment relationships is abstracted by Piaget,⁴⁷ to an interaction between maturation and learning which regulates the adaptive coping with reality and continually reorganizes the behavioral and thought structures comprising intelligence. Both maturation and learning interact to serve ontogenesis, but it is maturation which, so to say, decides whether what is learned will be accommodated and will thus become a developmental step.

Hartmann,⁴⁸ on the other hand, conceives of organism-environment relationships as an interaction between two dynamic and active organizations. Although he believes that

⁴⁷ Piaget, The Origins of Intelligence in Children, Op. Cit., 419 p.

⁴⁸ Hartmann, Op. Cit., xi-121 p.

even before the ego exists its subsequent lines of development are already determined, he explicitly states that maturation in itself is not enough to produce normal development. Complementary to maturation, Hartmann et al.⁴⁹ postulate also the need of two regulatory principles in the environment: indulgence and deprivation. They consider an amount of deprivation a must for proper ego development. Through properly timed deprivation the child learns to exchange immediate for future indulgence, and by being able to tolerate deprivation he shows a sense of trust in his environment and a beginning of perception of lawfulness that leads toward the future - two factors which are a prerequisite for the formation of thought.

Werner⁵⁰ does not connect mental development with a specific maturational regulatory principle. The concept of development as conceived by him denotes a life-span process; he introduces the dimension of time not in a biological-maturational sense as Piaget⁵¹ and Hartmann⁵² do, but as an intrinsic property of life. Accordingly, development is

49 Hartmann et al., Op. Cit., p. 11-38.

50 Werner, Op. Cit., p. 125-148.

51 Piaget, "Principle Factors Determining Intellectual Evolution from Childhood to Adult Life", Op. Cit., p. 32-48.

52 Hartmann, Op. Cit., xi-121 p.

perceived by him as an orderly, sequential process of qualitative change in time, with the preceding stages following the newly formed. A person may thus function on different mental strata depending upon the dynamism of organism-environment interaction, but this does not imply a regression to maturationally lower stages of development.

2. Autism and Early Cognitive Functioning.

In essence, all theories of cognitive development and of cognitive processes deal in the problem of reciprocity between external coordination and internal differentiation. It is a process of accommodation of the schemata to the external environment, which in the course of development and with the forming of systems of reciprocal relations becomes accurate. The mind, developmentally viewed, is called upon to discover a universe which is already structured. Through interaction with the environment from an undifferentiated state a polarity between subject and object starts to emerge. While the object is already structured at the beginning of the process of cognitive development, the process in itself suggests not only the growth of a system of relations but also the growth of a subject. Logic of relation and cognitive structures are not preformed but are formed gradually as needs and situations occur. Cognitive development is thus

not a passive receptiveness, it is active inasmuch as the experiencing subject grows.

Whether one speaks in terms of ego development, cognitive development, or intelligence development, or in terms of object-cathexis, assimilation and accommodation, or syncretism - it does not yet explain the reciprocal and interrelated development of the entity, if one may call it so, which is part of these functions and through growth becomes the master of these functions. When one speaks of cognitive development there must be a developing knower too; one which cognizes whether diffusely or in a more articulated manner, dependent upon the stage of development. Ego, cognition, intelligence in themselves represent only a mental system, but their activity represents not only a mental act but also the existence of one that acts and through this action develops with its functions.

The above consideration refers to the sometimes ambiguous use of the terms, to the lack of distinction between the ego and the self, or between object-representation and self-representation. Object-cathexis or assimilation and accommodation get their specific meaning only if they constantly refer to the growing distinction of the self and the object world. Only this distinction can help in throwing light upon the problem of autism and early cognitive functioning.

a) Autism and the Concept of Self.- The general assumption found in psychological literature, with regard to the early beginnings of extrauterine life, is that the newborn infant is helpless and can do nothing for himself. He lives in a confused mass of sensation, in a world without stable objects, and without organization in time, space and causality. As Cameron points out:

The newborn is an organism without a perceptual focus, living in a universe that for him has no boundaries and no structure. Out of his nebulous and fleeting experiences he must gradually construct external reality and at the same time build within himself an effective ego organization. He has nothing to begin with but the biological organization of his own body, and a world around him which will take him decades to understand.⁵³

Thus, psychologically considered, from the moment of his appearance in this world, if one is to accept Piaget's⁵⁴ postulate that psychology starts with birth, the human being enters a path of development till the end of maturation or for the life-span - dependent upon the approach of different psychologists. Accordingly, the basic question to consider is: what is it that develops which allows the growing individual to achieve logic of relationships, or subject-object polarity, or abstract thinking, or an individual center of organized experience and reasonable planning - the ego?

⁵³ Norman Cameron, Personality Development and Psychopathology: A Dynamic Approach, Boston, Houghton and Mifflin, 1963, p. 38.

⁵⁴ Piaget, The Origins of Intelligence in Children, Op. Cit., 419 p.

The difficulty in answering this question stems from several factors operant in psychology. Psychology was for many years interested in the "how" and not in the "what" of the developmental process. Psychology was so preoccupied with the study of determinants of development that the actual process of development escaped its attention; to an extent that today one does not even find a clear definition of the concept development in psychology. The study of the determinants of development introduced into psychology a vast array of borrowed concepts and referents which are perhaps of use to explain developmental phenomena in their original fields but are alien to psychological explanation. As a result the human being, instead of being studied as a developing person, is viewed as an organism which achieves in its development a high level of interchange with the environment, and is described in terms of either a physico-chemical machine, or a sensory-neuromuscular mechanism. Psychology thus, to use Anderson's⁵⁵ phrase, is studying an amazing system in terms of its intake and its power for converting the flow of intake into behavior; it is discussing the system's openness, emergence, growth, activation, and learning - but somewhere the developing person is lost. It

⁵⁵ John E. Anderson, "Dynamics of Development: System in Process", in Dale G. Harris, (Ed.), The Concept of Development: An Issue in the Study of Human Behavior, Minneapolis, University of Minnesota Press, 1957, p. 25-46,

becomes quite obvious that the study of determinants of development in itself, and explanations of development in terms of stimulus-response patterns cannot give a picture of the development of a person, nor can it explain the development of reality relationship in the growing child. Development cannot be conceived of as a result of interaction between determinants such as heredity and environment; it is a result of the interaction of the organism and environment. At the same time one cannot speak about development in general but has to take into consideration the species. This will determine not only the reaction unit of the organism and its ecological range, but also and mainly, the kind of inner coherent organization which will regulate the interchange with environment and within self.

In the realm of cognitive development a very similar problem is encountered. The cognitive process is only a means whereby organisms achieve, retain, and transform information. The study of cognitive development can give only a hierarchical outline of a developing social and rational instrument, to use Piaget's⁵⁶ phrase, but does not and cannot tell whether this instrument will be used or misused. In other words, to achieve subject-object polarity there is not enough in logic of relationships; there must

⁵⁶ Piaget, "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life", Op. Cit., p. 48.

be an achiever. In Stern's⁵⁷ classic dictum, there is Keine Gestalt ohne Gestalter. Even if one approaches cognitive development through perception and learning, as Solley and Murphy⁵⁸ did, the problem still remains; behind an act of perception must be a perceiver. Even at the initial stages of development, when perception is diffuse and subject and object are undifferentiated, there must exist a seed of this perceiver in whom a matrix of growing and ever changing experience will develop through his use of the developing cognitive functions.

This consideration is of particular importance in the study of the nature of autism. In essence autism involves two inseparable functions: disregard of logic of relationships and withdrawal from the external world. It is still a relation; not to the outer reality but to a representational world that fulfills a wish. As such it also presupposes an agent that can actively wish. Although the representational reality is not built according to logic of relationship and completely disregards time, space and causality, it still has to form a content if it has to fulfill

⁵⁷ W. Stern, General Psychology, New York, Macmillan, 1937, mentioned in Shelton J. Noshin, "Form Perception and Ego Functioning", in Maria A. Bickers-Ovsiankina, (Ed.), Rorschach Psychology, New York, Wiley, 1960, p. 109.

⁵⁸ Charles M. Solley and Gardner Murphy, Development of the Perceptual World, New York, Basic Books, 1960, xiv-353 p.

a wish. In other words, autistic ideation is controlled from within and presupposes cognitive functioning. This point is also supported when one considers the meaning of the autistic withdrawal from the external world. It points out two facts.

One, in autism the person withdraws from the external world through inner control of outer sensory stimulation. It is still a question whether the cognitive disturbance in sensory deprivation, induced experimentally in normal people, should be considered as autism. Also the experience in sensory deprivation is not of a gratifying nature as the experiments show. Two, although in autism one withdraws from the external world into a symbolic world, the elements which structure the illogical content of this world came from the external world. In other words, autistic withdrawal presupposes a prior stage of normal cognitive functioning. To wish, one has to know what to wish for. It follows thus that autism cannot appear before some level of cognitive development has been reached, and before an agent who can actively wish has developed. It is in this sense that Bleuler⁵⁹ speaks about autism as an active turning away from the external world. Active in the meaning that

⁵⁹ Eugen Bleuler, "Autistic Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 351-437.

it can shut off from within the flow of outer stimulation, so that one can indulge in wishful thoughts; and active in the meaning that to fulfill autistically a wish one has to be able to manipulate representations.

What is referred to here is the self. Subjectivism cannot develop without the development of the self. As Mead points out:

It is not the exclusion of an object from the experience in which others are involved which renders it subjective; it is rendered subjective by being referred by an individual to his self, when selves have arisen in the development of conduct.⁶⁰

This point was for a long time overlooked because the classic psychoanalytic approach includes the self in the ego. Thus, instead of using the term self everything was referred to the ego, and no distinction was made, as Klopfer et al.⁶¹ point out, between the object of perception and the ego as a complex of functions.

A change in approach came with Hartmann's⁶² re-evaluation of many psychoanalytic concepts. Perhaps the most important is the conceptual differentiation between ego

⁶⁰ George H. Mead, "A Behavioristic Account of the Significant Symbol", in Journal of Philosophy, Vol. 19, issue of January-December, 1922, p. 159.

⁶¹ Bruno Klopfer, et al., Developments in Rorschach Technique, Vol. 1, Vonkers-on-Radson, New York, World Book Co., 1954, p. 705.

⁶² Hartmann, Op. Cit., xi-121 p.

and self. His concept of the conflict-free sphere of the ego along with Anna Freud's⁶³ conception of the ego as coinciding with cognitive functions brought about also a definite re-evaluation of the concept of regression. Accordingly, as Hartmann observes, "(...) the opposite of object cathexis is not ego cathexis, but cathexis of one's own person, that is self-cathexis".⁶⁴ The source of delusions, according to him, is not the turning back of the libido from the objects upon the system ego, but rather the turning back upon the self. This is particularly true when one considers that autism in its most distinguished form appears in paranoia, a clinical picture in which cognitive functions are relatively well preserved. Schizophrenics in whom the ego disintegrates are beyond autism.

According to Jacobson:

By a realistic meaning of the self we mean one that mirrors correctly the state and the characteristics, the potentialities and abilities, the assets and the limits of our bodily and mental ego: on the one hand, of our appearance, our anatomy, and our physiology; on the other hand, of our conscious and preconscious feelings and thoughts, wishes, impulses and attitudes, of our physical and mental activities.⁶⁵

⁶³ Anna Freud, "Indications for Child Analysis", in The Psychoanalytic Study of the Child, Vol. 1, 1945, p.127-149.

⁶⁴ Heinz Hartmann, "Comments on the Psychoanalytic Theory of the Ego", in The Psychoanalytic Study of the Child, Vol. 5, 1950, p. 84.

⁶⁵ Faith Jacobson, "The Self and the Object World", in The Psychoanalytic Study of the Child, Vol. 9, 1954, p. 87.

The ego and the self develop thus interdependently and in parallel. But the self to appear in consciousness must become an object. The emergence of the self is thus dependent upon the development of cognition; its emergence in consciousness is a cognitive act.

As Mead points out, "The self arises in conduct when the individual becomes a social object in experience to himself."⁶⁶ Only as the individual finds himself acting with reference to himself as he acts toward others - the first appearance of the self in consciousness is possible. The self can appear in memory as an image only when it becomes a cognitive object, and only then those objects and experiences which belong to the individual's body and images which belong to his past, become part of his self. In other words, emergence of the self in consciousness implies a body-image and ability to reflect upon self; cognitively considered, the appearance of the self in consciousness can come at the end of the inductive thinking stage. It also implies a stage in the process of socialization when the child no more reacts to his own conduct through visualizing the attitude of the parents and in remembered words of his parents, that is, a stage of development which is above primary identification and imitation.

⁶⁶ Mead, Op. Cit., p. 160.

Is autism possible before the first emergence of the self in consciousness? If one divorces the concept of autism from diffusion of perception and from syncretism of conceptualization which are only secondary characteristics and conceives of it as an active turning away from external reality for the purpose of wishfulfilment - when is this first possible in childhood?

The child in his development only gradually assumes those qualities which in time give him the unique status of a human being. The capacity to form concepts, the use of language, the distinctive thought processes, the postponement of gratification - these and other human functions develop in the child, become part of his ego and help to integrate his self. In the course of this development the child manifests different levels of immature functioning which in a way resembles disturbances seen in clinical pictures of older people. In fact, this resemblance gave rise to the idea that many a clinical entity, and particularly schizophrenia, represent a regression to the mental functioning of the child. It resulted in the appearance of a number of theories of personality development in which the concepts regression and development stand in reciprocal relation. Accordingly, experiences and cognitive functioning of schizophrenic adults were attributed as normal to children, and development was

conceived of as a process of adjustment to the uncanny which curtails pleasure. In this way also autism was attributed to early childhood.

To explain why ascribing autism to early mental life represents a misuse of the term, two concepts have to be clarified: the regressive nature of autism in schizophrenia, and relation to reality in early childhood.

b) The Regressive Nature of Autism.- The concept of regression is used in descriptions of autism in schizophrenics in the sense of a turn to less advanced levels of cognitive functioning and relation to reality, as perceived in children or in primitive people. In psychoanalytic theory it is conceived of as a retreat to primary processes, to primary narcissism.

The regression occurs on several plans. With regard to logic the regression is expressed in deliberate use of the predicate; the predicate becomes the most important part in autistic thinking and leads to the identification of subjects. Conclusions are deduced from identical predicates and objects are identified in terms of common predicates or characteristics.

In cognitive functioning the regression is from connotation to denotation with an increase in tendency to identify rather than to abstract. Thinking becomes perceptualized, multifocal and over-inclusive, and anticipation

of the future is abandoned. Thus the world to which the person relates is of an inner origin and hallucinatory nature. It is projected into the outside world and accepted by the person as a real one.

In the social realm the regression is towards a world of unsocialized, private meanings. This characteristic is basic for autism. The common, socially shared symbol, which is basic for social communication, is abandoned. Social feedback, so important for man's participation in society, is completely disregarded. The person in autism does not communicate; he rather lives on a level of expression. In his inner world he is not only master of his private symbols but also the master of the expression and behavior of the visualized other. It is in this characteristic of autism that its omnipotence is expressed.

Following the description of the above characteristics one basic point should be taken into consideration. Autism is not a clinical entity; it is a symptom. The regressive changes occur in the person, in the schizophrenic if classified so, but not in autism. Autism in itself is a function of a set of conditions, and for it to emerge several requirements have to be met. It presupposes in the person

as Arieti⁶⁷ and Bleuler⁶⁸ maintain, a prior stage of normal development, and requires for its function a complex memory, a level of cognitive organization, and a stage of development at which apperception and projection is possible.

The function of autism does not confine itself to schizophrenia; it appears also in normals under certain conditions. The regression into the service of the ego which Kris⁶⁹ maintains is a self-regulated regression, and Varendock's⁷⁰ explanation of daydreams are evident examples of it. In both cases the regression is to the preconscious system, a level of functioning in which opposition to and reciprocity with object cathexis still exists. A similar view one finds also with regard to the regression in dreams. Lewin⁷¹ in his work on dreams substitutes for regression to primary narcissism, regression to primitive object relationships. The change in the referents is not of a tautological

67 Silvano Arieti, Interpretation of Schizophrenia, New York, Brunner, 1955, xviii-541 p.

68 Bleuler, Op. Cit., p. 399-437.

69 Ernest Kris, "On Preconscious Mental Processes", in David Rapaport, (Ed.), Op. Cit., p. 474-493.

70 J. Varendock, "The Psychology of Daydreams", in David Rapaport, (Ed.), Op. Cit., p. 451-473.

71 Bertram D. Lewin, The Psychoanalysis of Elation, New York, Norton, 1950, mentioned in Elizabeth R. Zetzel, "An Approach to the Relation Between Concept and Content in Psychoanalytic Theory", in The Psychoanalytic Study of the Child, Vol. 11, 1956, p. 117.

nature, it seems to have far-reaching implications in understanding the nature of autism.

In recent years one observes among clinicians a growing interest in problems of developmental psychology and also attempts to correlate systematically clinical data with data of direct observation of human development. This change explicitly manifests that neither a developmental theory nor an explanation of the dynamics of a clinical picture can be derived from a clinical reconstruction of ontogenesis in abstract conceptual terms. To properly understand later situations of conflict and resultant regression one has first to have a knowledge of the normal course of development and of the growing person's functional possibilities at different stages of development. The regressive nature of a symptom in a clinical entity can be understood only through a meaningful conglomeration of data from clinical observation with data from developmental psychology.

The dynamic stage concept as found in developmental psychology becomes thus of basic importance for psychopathology; it is important for purposes of etiology, diagnosis, and for understanding the meaningfulness of the regression in a clinical picture. It is a known fact today that the same etiological agent may produce different phenomena and hence a different clinical picture, depending upon in which developmental stage the agent is operating.

The importance of factors of any kind which affect development depends to a large extent on the specific stage in which they occur. The same is also true for the process of regression. The pathognomy of a clinical entity finds its expression in a way which is specific to the level of personality functioning to which the person regressed, even though the etiological agent of this disease may be traced to earlier stages of development.

The above reflects also upon the problem of autism. Fundamentally, whether as a result of regression due to pathology or as a phenomenon in normal mental functioning, autism represents a relation. Although it is a relation to an inner world which does not make use of logic of relationships it cannot, developmentally viewed, be established without prior experience in the external world, and before a level of cognitive functioning has been reached which provides the proper conditions for the emergence of autism. The same is true when one views autism from the point of view of regression. When in the course of regression the schizophrenic reaches a point beyond a stage which is minimal for the function of autism, although the patient may still be classified as a schizophrenic, he is not autistic anymore. It remains now to be seen at what developmental level of relation to reality and cognitive functioning the emergence of autism is possible.

c) Relation to Reality in Early Childhood.- The conventional picture of the infant found in different psychological theories is that of a helpless human being standing alone before the objective world. This picture according to Schachtel⁷² is a result of two ideas basic to many psychological theories. One states that the fundamental movement of the living organism is toward an excitationless state of quiescence, and life is accordingly viewed as a painful compromise. According to the other, the infant is helplessly governed by drives striving for discharge and learns to use his senses only under the coercion of the necessity to cope with reality. Implicit in both is the notion that reality relation is a painful necessity and that development curtails pleasure.

A different approach toward the explanation of the basic principles of early development is manifest in Buehler's⁷³ and Hartmann's⁷⁴ writings. Both maintain that the normal newborn human and his average expectable environment are adapted to each other from the very first moment. The infant, according to them, is in close touch with his

72 Ernst G. Schachtel, Metamorphosis, New York, Basic Books, 1959, viii-344 p.

73 Charlotte Buehler, Childhood and Adolescence, Tel-Aviv, Kibutz Meuchad, 1947, Hebrew Translation by Levi, 400 p.

74 Hartmann, Ego Psychology and the Problem of Adaptation, Op. Cit., xi-121 p.

environment not only by his need for its care but also by his reactions to its stimuli, even though these reactions are still primitive. The stress is on the occurrence in the course of the child's development of the positive responses and attitudes to the environment. Reality relation thus enters the process of development as an independent variable; it is part of adaptation and includes both knowledge of reality and acting in regard to it.

Although at present many investigators stress the importance of the study of early reality relations, it is also a known fact that experiences of young children are frustratingly inaccessible. Without language, and with diffuse and generalized reactions, the young child can in no certain way disclose what he feels or what he knows. The available knowledge in literature about the young child's inner world is thus based only on inference from observation of the child's activity. This poses another difficulty. As Hartmann⁷⁵ observes, objective knowledge of and practical orientation in reality do not necessarily coincide. Whether this is also true for early childhood is difficult to say. Piaget⁷⁶ does not accept this statement and, according to

⁷⁵ Hartmann, Ego Psychology and the Problem of Adaptation, Op. Cit., xi-121 p.

⁷⁶ Piaget, The Language and Thought of the Child, Op. Cit., 251 p.

him, the child whatever he knows shows it immediately in action, and whatever he thinks he immediately expresses it through verbalization.

Although the nature and significance of early reality relations are still a matter of controversy it seems that when one approaches the problem from a wider point of view the issue gains a new perspective. Without entering into the philosopher's discussions of what constitutes reality, a basic point stressed in psychological literature is that the growing child learns his approach to reality in constant relation to the parents' approach to it. The child "(...) adjusts to a world which is not only to a considerable extent man-made, but also man-thought".⁷⁷ While from the point of view of scientific criteria this world does not coincide with objective reality, it is obviously not an autistic world. One thus finds opposed to the concept of objective reality two other concepts of a completely different nature. One corresponds to what is known as autism; the other corresponds to the conventional or socialized knowledge of reality in which not validation but intersubjective acceptance is used as a criterion. It is in this context that Bruner et al.⁷⁸ speak about empirical

⁷⁷ Heinz Hartmann, "Notes on the Reality Principle", in The Psychoanalytic Study of the Child, Vol. 11, 1956, p. 43-44.

⁷⁸ Bruner, et al. Op. Cit., xi-330 p.

verisimilitude, that is, guidance by conventional experience. Although it brings to error, it is a reasonable error, and cannot be considered as autism. They maintain that much of human reasoning is supported by a kind of thematic process, and meaningfulness of material is not always accepted on the basis of abstract logic but mainly on the basis of preference of empirically reasonable propositions. A similar approach one finds in Holt and Havel⁷⁹ who distinguish in Rorschach between thematic elaboration and autistic elaboration.

For the young child the "erroneous" conception of the world around him is real not only because of his immature cognitive functioning but, fundamentally, because this is the reality intersubjectively accepted by his immediate environment and presented to him. One might even question whether it is subjective; it is in a sense non-veridical, but not autistic. The coherence of the world to which the child adjusts and relates is dependent on ego's capacity for integration, on the level of cognitive functioning, but not all deviation from objective reality can be directly related to autism.

79 Robert R. Holt and Joan Havel, "A Method for Assessing Primary and Secondary Process in the Rorschach", in Maria A. Rickers-Ovsiankina, (Ed.), Op. Cit., p. 263-315.

Werner⁸⁰ brings an example of a three year old child who called soldiers seen at a considerable distance from the window Kindersoldaten. One can hardly say that this is an autistic response. It rather reflects immaturity in conceptual size constancy. Arieti⁸¹ quotes the following example from Levin as an indication of autism in young normal children's relation to reality: a twenty-seven month old child drinking milk while looking at the picture of a horse, said: "Give milk to the horse." Why should this be an indication of autistic thinking? The child in his expression which was stimulated by the picture and by the act of drinking manifested: relation to an external constellation of stimuli; showed ability in concept-basis, recognition of the horse; in concept-sign, use of the word horse, and in perception of two-dimensional objects. This statement which might seem to be nonsense to an adult, is really an expression of immaturity in concept-meaning. In both examples the children related to the external reality, each according to his developmental level of cognitive functioning.

What is of importance in this issue is to perceive that the person does not live in an objective reality as defined by science. In the adult, a workable equilibrium

⁸⁰ Werner, Comparative Psychology of Mental Development, Op. Cit., p. 489.

⁸¹ Arieti, Op. Cit., p. 198.

is normally established between the inner world and the objective knowledge of reality. In the young child, one might say, the relation to reality is of a non-veridical correspondence. He is not able yet to apperceive, neither to project; there is no inner world. He lives in a world of immediate experience and a world of experience through recognition. He responds to the world in an immature way, but the responsiveness is according to the immediate nature of the stimulus and the level of mental functioning. The world is not yet personally meaningful for him, but meaningful inasmuch as he responds to it.

Developmentally viewed one might say that reality relation depends on the growing capacity to delay gratification or discharge, and to substitute instead through processes. But for the preschool child, even if one assumes hypothetically that a delay is possible, the delay in itself will not bring to better results than the immediate response. A delay suggests better results only if it enables vicarious testing of action, which is impossible in the young child. Only with the development of language to a level of, to use Piaget's⁸² phrase, thought interchange one can speak of the existence of an inner world in the child. At this point the non-veridical correspondence between stimulus and

⁸² Piaget, The Language and Thought of the Child, Op. Cit., p. 61.

action in the child's behavior gives way to a correlation between the child's activity and his thought. The concept of future enters now the child's life; this is made possible by relieving his behavior from immediacy of reactivity through re-experiencing the past, and thus making possible vicarious testing of activity and relation to future.

This developmental change is of basic importance for personality development in general, and reality relations in particular. At this stage of development early childhood comes to an end. The child grew out of, what one might call, mother-child psychological and social symbiosis; in primitive cultures at this stage, which roughly corresponds to age six-seven, he becomes transferred to father's responsibility; in our culture he enters school. From the psychological point of view with the end of the phase of inductive thinking the primary conception of body-image, of self appears. He is able now not only to delay responsiveness to stimuli in the narrow cognitive meaning of the act, but also to relate the stimuli to himself and thus to express in his response a personal meaning, that is, he is able to project. But, perhaps, the most important change that occurs at this stage is the appearance of anxiety in its true psychological meaning. As Ausubel points out:

Anxiety appears relatively late on the emotional horizon. It presupposes the child's ability to conceptualize his own biosocial status, to react to depreciation of such status with lowered feelings of adequacy, and to anticipate future threats to self-esteem.⁸³

These changes bring the child to be confronted at once with three worlds: the world of his narrow social environment in which he grew up, the world of peer-group and school which is different from the familiar and close one, and an inner world which becomes structured now. Although from the point of view of the act of experiencing nothing changes developmentally. As Kahn points out:

We can experience only in the present. We may look back - retrospect - on experiences of our past, we may expect - anticipate - experiences in our future but the actual experience is always a matter of the present - of the present of the experiencing person in his situation.⁸⁴

But what changes is that the child in the process of experiencing, while experiencing in the present, is able now to give a personal meaning to his actual experience. Veridicality of the response is now not only a question of cognitive maturity but mainly a result of dynamics of meaning. With the departure of the child from his primary socio-psychological world, where he was a center of an immaturely

⁸³ David T. Ausubel, Theory and Problems of Child Development, New York, Grune and Stratton, 1957, p. 331.

⁸⁴ Eugen Kahn, "Some Thoughts on the Mind", in Jordan M. Scher, (Ed.), Op. Cit., p. 433.

known reality, the inner world becomes a psychological space where he can preserve this centeredness. It is in this meaning that anxiety becomes a basic factor in withdrawal toward an inner world, a basic factor for autism. The child is able now to withdraw to a world where accepted lawfulness is not preserved, where omnipotence of wishfulfillment is possible. Developmentally, at this stage for the first time autistic language and behavior appear. It is at this stage that one observes in the behavior of children a socially shared autism, when they construct their own signs and linguistic expressions as opposed to those used by adults.

d) Summary.- The notion that perception, or cognition in general, develops from autism to objectivism is based on a misconception of cognitive development in early childhood. The statement is rather true when applied to the adult's range of cognitive functioning. In the adult, perception or cognition can range from the one extreme of complete autism to the other in which stimulus determination prevails. In the young child, the preschooler, before development of reflection upon self, the cognitive functioning is not autistic but, rather, non-veridical due to immaturity. It is not veridicality or non-veridicality which makes an activity or thought autistic but, rather, the distortion of reality due to a withdrawal from it and a disregard of logic of relationships to fulfill a wish.

It is true that autism, its emergence and function depend to a great extent upon cognitive functions; self-perception is also always a cognitive act. But for one to become autistic, cognition in itself is not enough. Autism is possible only when cognitive functioning develops to a level which renders the child to reflect upon himself. Only at this point of development anxiety becomes a factor in the child's reality relations and one can speak about preception, subjectivity, and autism.

The steps leading to this development are perhaps most clearly expressed in the definition of cognition by Bruner, et al. Cognition, according to them, is "(...) the means whereby organisms achieve, retain, and transform information".⁸⁵ Accordingly, developmentally viewed, the first phase represents concept formation; the second, language development; and the third, transformation, is possible only when delay of action and individuality is attained. In the act of transformation, psychologically speaking, the child's attitude and outlook on reality is reflected. In it the child's first preceptive direction is established and manifests the beginning of the psychological idiosyncratic as opposed to the biological, which ruled the child's behavior prior to that.

⁸⁵ Bruner, et al., A Study of Thinking, Op. Cit., p. vii.

The basic characteristic of this stage of development and which renders autism possible, is that the child is now able to withdraw to an inner world. Like thinking proper autism is also based on a delay; it is not an immediate response to an impinging situation, but a delay in the meaning of a withdrawal, not to nothingness, but to an inner world where wishfulfilment is possible.

CHAPTER III

THE AUTISTIC SYNDROME

The preceding chapter conveyed the thought that childhood is essentially a collective term; it includes the process of biological maturation and socialization which carry the person from a condition of complete helplessness to the threshold of self-dependence and creative endeavor. To properly understand the occurrence of a characteristic of behavior in childhood one has to grasp the exact meaning of the qualitative changes which take place in each and every stage of development. This writer has also suggested that the term autism is not applicable in the description of the nature of early cognitive functioning in the normal child.

It is the intention of this writer to show that the term autism is as inapplicable within the realm of psychopathology in early childhood as it is in normality.

1. Childhood Schizophrenia.

Over the last two decades the term autism is extensively used with reference to two clinical pictures: childhood schizophrenia and early infantile autism. Notwithstanding the fact that a vast amount of literature dealing with the etiology of childhood schizophrenia has been published,

the exact nature of the disorder is at present unknown. This is attributed to the youth of childhood psychopathology as a field of investigation, and a lack of a valid classification of mental disorder in children. The disorder holds great fascination for the psychiatrist and psychologist alike because of the multiplicity of theories with regard to its nature, poor prognosis for social integration in children suffering from this disorder, and consequently lack of a definite course of treatment.

Recently a strong opposition is being encountered in psychiatric and psychological circles against the use of the term "childhood schizophrenia"; questions have been raised as to the exact meaning of the term and its clinical referents. Tisman,¹ for example, argues that the term childhood schizophrenia leads to confusion rather than to clarification. In his opinion the term should be replaced by a broader concept consistent with present knowledge of childhood psychopathology. Mosse,² in line with this thinking, insists that according to classical psychiatric nosology schizophrenia is not a disease of childhood; its onset is

1 Aaron H. Tisman, "Childhood Psychosis and Childhood Schizophrenia", in American Journal of Orthopsychiatry, Vol. 30, No. 2, issue of April 1960, p. 391-396.

2 Hilde L. Mosse, "The Misuse of the Diagnosis Childhood Schizophrenia", in American Journal of Psychiatry, Vol. 114, No. 9, issue of March 1958, p. 791-794.

considered to be in adolescence or young adulthood. Hence to diagnose children with severe emotional and mental symptoms as schizophrenic is scientifically wrong and has serious practical consequences. She points out:

We have searched the literature and were unable to find even one fully analyzed and definite case of schizophrenia in which the causative connection between early or later infantile psychological trauma and the disease was really established scientifically. Children may react in a bizarre way to severe trauma but that does not mean that they have schizophrenia or will develop it later on in life.³

Katan⁴ also denies the existence of a syndrome in childhood directly congruent with the schizophrenia of adults. He contends that schizophrenia is not preceded by an infantile psychotic state. There is, according to him, a slight external similarity between schizophrenic symptoms and the behavior shown by children labeled as schizophrenics, but the structure of the two diseases is of a different etiology and nature.

Goldfarb, on the other hand, sees the argument as being of a semantic nature; for him the term is merely a label. He writes:

³ Mosse, Op. Cit., p. 792-793.

⁴ M. Katan, "Structural Aspects of a Case of Schizophrenia", in Psychoanalytic Study of the Child, Vol. 5, 1950, p. 175-211.

Childhood schizophrenia obviously is not a unitary, etiologically specific and positive disease entity relentlessly unfolding itself; it is merely a label indicating that the child deviates dramatically from normal in ego functioning, that he lacks normal guides for self-regulation, for achieving self-identity, and for differentiating himself from the world outside himself.⁵

Whether one calls the disorder dysmaturational, atypical development, or child psychosis - has at the present state of knowledge no bearing upon the proper understanding of the disease. The divergence of opinions and the multiple contradictory theoretical explanations of childhood schizophrenia stem, according to Goldfarb, from two main difficulties:

Psychotic children just do not present the classical combination of symptoms which is required by the nosological categories of Kraepelin or which are identical with those of Bleuler's definition of schizophrenia. (...)although a sizeable proportion of childhood schizophrenics later are diagnosed as schizophrenic in adolescence or adulthood, childhood schizophrenia is not the usual precursor of the schizophrenias of later onset, nor should the two be regarded as equivalent.

More appropriate criteria for the understanding of the psychopathy of childhood must consider the limitations of a child's language, the fluidity of his symptoms, and the special behavioral changes linked with his maturation.

The full range of known criteria has not been fully and adequately explored. Similarly, the cause or causes of the disorders subsumed under the umbrella of childhood schizophrenia are still unknown.⁶

⁵ William Goldfarb, Childhood Schizophrenia, Cambridge, Mass., Harvard University Press for The Commonwealth Fund, 1961, p. 27-28.

⁶ Ibid., p. 19.

What then is the nature of schizophrenia? The first to give a comprehensive description of schizophrenia was Potter.⁷ He conceives of the disorder as a regression characterized by a withdrawal of interest from the environment, disturbances in thought processes, defect in emotional rapport, and bizarre behavior with a tendency to perseveration or stereotypy. Psychodynamically, he considers the regression as characteristic of schizophrenia in children as well as in adults. He concludes from his observations that a typical schizophrenic reaction may put in its appearance long before adolescence.

Currently one of the fundamental viewpoints on childhood schizophrenia was rendered by Bender.⁸ Her approach is based on the assumption that childhood schizophrenia forecasts adult schizophrenia and its causative factors are of an organic nature. She defines childhood schizophrenia as a maturational lag at the embryonic level, a kind of encephalopathy that affects development in all the areas which integrate biological and psychological behavior. The direct result of this organismic disturbance is anxiety,

⁷ Howard W. Potter, "Schizophrenia in Children", in American Journal of Psychiatry, Vol. 12, No. 11, issue of May 1933, p. 1253-1271.

⁸ Laurretta Bender, "Twenty Years of Clinical Research on Schizophrenic Children, with Special Reference to Those under Six Years of Age", in Gerald Caplan, (Ed.), Emotional Problems of Early Childhood, New York, Basic Books, 1955, p. 503-515.

(...) which tends to call forth symptom formation of a pseudodefective, pseudoneurotic, or pseudopsychopathic type. The family climate in the infantile period, the environment in general, and other psychological factors (such as psychotherapy) help to determine the ability of the personality to cope with the illness and the anxiety and the symptom formation.⁹

She differentiates between two levels of symptomatology in the schizophrenic child. To the primary symptoms she ascribes disturbance in homeostatic control of the body function, in respiratory patterns, in speech and language development, and primitivization of perception. These primary disturbances are responsible for the primitive plasticity that characterizes all schizophrenic behavior. Secondary symptom formation, on the other hand, result in withdrawal, autism, temper tantrums, difficulties in body image, in personal identity, and in disturbance in object relations.

Bender¹⁰ draws her conclusions from two basic theories: Bleuler's¹¹ vague and not elaborated conception of schizophrenia as being fundamentally of some organic nature, and Gesell's¹² theory of embryological development.

9 Bender, Op. Cit., p. 513.

10 Ibid., p. 503-515.

11 Eugen Bleuler, "The Basic Symptoms of Schizophrenia", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 581-649.

12 Arnold Gesell and C.S. Amatruda, The Embryology of Behavior: The Beginnings of the Human Mind, New York, Harper and Brothers, 1945, xix-289 p.

She does not differentiate between qualitatively different clinical pictures observed at different levels of development of the child; for her childhood schizophrenia is a clinical entity, occurring in childhood before the age of eleven years as a result of a dysmaturation process of organic nature. The schizophrenic child reveals pathology at every level and in every field of integration within the functioning of the central nervous system. The disorder is of a reactive nature rather than of a regressive nature.

Stress on psychogenic factors as determinants of childhood schizophrenia is perhaps best presented by Rank.¹³ Her basic assumption is that childhood schizophrenia is of a different nature than adult schizophrenia, and that the disorder should rather be called atypical development resulting in a fragmented ego.

By this term, we refer to the clinically established fact that these children lack the capacity for integration and that they demonstrate only single well-developed functions alongside the many other functions that are crippled or arrested. (...) Such an ego is the result of the infant's unsuccessful struggle to obtain vital satisfaction from his parents.¹⁴

¹³ Beata Rank, "Intensive Study and Treatment of Preschool Children Who Show Marked Personality Deviations, of 'Atypical Development', and Their Parents", in Gerald Caplan, (Ed.), Op. Cit., p. 491-501.

¹⁴ Ibid., p. 494-495.

The disorder is thus here attributed to the lack of an emotional climate favorable to the development of the ego and conducive to the forming of early object relationship. Although Rank does not deny that in some cases atypical development is caused by hereditary and biological factors, she herself stresses the vital role of post-natal psychological elements, particularly the emotional climate in which a child's early relationships develop and individuation takes place.

A middle position between the two extremes is held by Goldfarb.¹⁵ As a result of a prolonged study he came to the conclusion that there are schizophrenic children with underlying organic etiology and schizophrenic children with underlying psycho-social etiology. In both the disorder is a result of disturbances in ego functions. According to him, it is difficult to discern whether the primary causative factors stem from the child himself or from the family atmosphere; the differentiation is rather of a theoretical nature. When observed in the clinic the child presents a terminal product of a cyclic chain of somatic and psycho-social interaction in which the primary causative factors are not given more to recognition in absence of gross neurophysiological pathology. Whether the pathological process begins with the child or the family, the basic

15 Goldfarb, Op. Cit., xxvi-216 p.

clinical symptoms, according to Goldfarb,¹⁶ are: 1) deficient equipment for experiencing, which restricts the capacity for experiencing pleasure and renders the child aimless in his behavior; 2) a pattern of receptor preference in which the distance receptor modalities are not used and only the proximal receptor modalities touch, smell and taste are the chief basis for orientation to the environment. This disturbance affects the child's ability to anticipate and to conceptualize, and contributes to his uncertainty about his personal identity.

Basic to Goldfarb's¹⁷ conception of childhood schizophrenia is the concept of ego. He conceives of the disorder as a behavior disturbance characterized by many and qualitatively serious defects in the ego. Whether of organic or psycho-social nature, both result in severe ego disorganization.

Although there is a general agreement concerning the basic clinical findings, the explanations of the nature of the schizophrenic process vary and depend mostly upon the particular investigator's concept of pathogenesis. One of the most basic questions asked today is whether regardless of divergent behavioral manifestations there is a core

16 Goldfarb, Op. Cit., p. 8-9.

17 Ibid., p. 10.

problem, a basic disturbance pathognomic to the illness.

According to Hendrickson:

Present theories concerning etiology reveal much wider disagreement than we see in the area of psychopathology. This disagreement centers around the old, and possibly anachronistic argument of 'nature vs. nurture'. Does the schizophrenic child develop his illness because of his mother's pathogenic attitudes toward him, or is the basic defect present in the child at birth with some of the mother's attitudes developing out of the frustrations of trying to deal with the sick child? Does this illness represent an inherent biological defect, or is it psychogenetically determined? Or are both types of factors operating?¹⁸

The problem becomes more confused by the fact that one finds a schizophrenic child in a family where all other siblings are normal and do not show any behavior disturbance. And, on the other hand, sometimes no childhood schizophrenia is found in a family where one or both parents suffer from schizophrenia or schizoid personality.

Triakson,¹⁹ for example, considers the disorder a result of a primary deficiency in "sending power" inherent in the child. He questions the plausibility of stressing the factor of the maternal rejection. Sackler et al.²⁰

¹⁸ Willard J. Hendrickson, "Etiology in Childhood Schizophrenia - An Evaluation of Current Views", in Nervous Child, Vol. 10, No. 1, 1952-1953, p. 10.

¹⁹ Erik H. Triakson, Childhood and Society, New York, Norton, 1950, p. 181.

²⁰ Mortimer D. Sackler, et al., "A Psychobiologic Viewpoint on Schizophrenias of Childhood", in Nervous Child, Vol. 10, No. 1, 1952-1953, p. 43-59.

stress the fact that preponderance of males in childhood schizophrenia is evidence that the disorder starts in utero and is a result of hormonal dysequilibration. Anderson²¹ sees childhood schizophrenia, and especially the child's failure in interpersonal relations, brought about by a very specific type of organic brain deficit in the associational pathways of the cortex.

More recently a trend to re-examine the diagnostic criteria of childhood schizophrenia brought about attempts to distinguish among the multiplicity of symptoms a number of syndromes that form a more homogeneous clinical entity. Up till now three such syndromes, which allegedly represent subgroups of childhood schizophrenia, were described. They are: anaclitic depression, symbiotic psychosis, and early infantile autism.

a) Anaclitic Depression.- Spitz²² describes this disturbance as resulting from emotional deprivation. It is a condition which develops in the second half of the first year when the infant who has just established the first constant cathexis of a need-satisfying object, the mother,

²¹ Camilla M. Anderson, "Organic Factors Predisposing to Schizophrenia", in Nervous Child, Vol. 10, No. 1, 1952-1953, p. 36-42.

²² Rene A. Spitz, "Anaclitic Depression", in The Psychoanalytic Study of the Child, Vol. 2, 1946, p. 313-336.

loses this object and develops a pathological reaction progressing to a state of debilitation and depressive withdrawal from reality. The clinical picture is that of a deteriorated catatonic-like stupor or agitation. He considers this syndrome to be a child psychosis which differs from adult psychosis only because of the immaturity of the psychic apparatus. In anaclitic depression the psychopathology arises neither from a defect in the child nor in the mother; it is a result of a loss of the real object in the outside world at an important stage of turning towards reality.

At present the connection between anaclitic depression and childhood schizophrenia is not clear; the peculiarity of the conditions under which the disorder develops is not yet understood. The condition develops mostly in infants who previously did not show any psychopathological signs and had a good relationship with mother.

b) Symbiotic Psychosis.- Symbiotic psychosis, a syndrome characterized by ego fragmentation, break with reality and a strong clinging to and dependence upon mother, is described by Mahler.²³ The symptomatic psychopathology in these children is a result of discrepancy between normal somatic maturation and fixation of emotional development at

²³ Margaret S. Mahler, "On Child Psychosis and Schizophrenia: Autistic and Symbiotic Infantile Psychoses", in The Psychoanalytic Study of the Child, Vol. 7, 1952, p. 286-305.

a symbiotic stage of the need-satisfying part-object.

The child who could not achieve emotional differentiation from the mother is thereby unprepared now to be functionally separate from her. Despite his own matured independence of functioning, he appears emotionally utterly bewildered and panicky; (...) With age, the discrepancy between maturational and developmental growth increases. When the rate of growth of autonomous ego-functions and psychosexual maturation surpasses the emotional differentiation from the mother, these children's brittle ego-structure tends to fragment.²⁴

When seen in clinic these children's behavior shows an acute break with reality expressed by temper tantrums or panic-stricken behavior. Underlying this behavior is a low tolerance to frustration and lack of emotional differentiation. The child resorts to unbearable frustration "(...) by bizarrely distorted and often feverishly increased reality testing and hallucinatory attempts to restitution (...)"²⁵

The symptoms of the disorder become manifest after age two and coincide with the sociobiological growth of the child. The main characteristic of this syndrome is the attempt of the child to restore and to perpetuate the delusional omnipotence phase of mother-child fusion, a condition where mother is perceived as an extension of the self.

²⁴ Margaret S. Mahler, et al. "Severe Emotional Disturbances in Childhood: Psychosis", in Silvano Arieti, (Ed.), American Handbook of Psychiatry, New York, Basic Books, 1959, p. 826.

²⁵ Ibid., p. 827.

c) Early Infantile Autism.- This syndrome described by Kanner²⁶ is considered by him the earliest form of childhood schizophrenia.

The choice of the designation, 'early infantile autism', was suggested by the unmistakable evidence of the typical symptoms in the first two years of life and the self-centered, at least in the beginning often impenetrable, aloneness.²⁷

The clinical symptoms of these children present themselves in the form of detachment from people, repetitiousness and ritualism in motor behavior, fascination for objects, linguistic impairment or complete autism.

What mostly impresses the clinician when he observes children exhibiting this syndrome is their complete disregard of persons, and their shrinking from anything that encroaches on their isolation. It is these two characteristics that brought the above writers to consider the condition as the earliest form of schizophrenia and to call it autism. They borrowed the two terms without regard to their possible inapplicability within the realm of childhood psychopathology. It seems fitting therefore to attempt an analysis of the meaning of schizophrenia and of the term autism in psychopathology before a discussion of early infantile autism is started.

²⁶ Leo Kanner, "Autistic Disturbances of Affective Contact", in Nervous Child, Vol. 1, 1943, p. 217-250.

²⁷ Leo Kanner and Leon Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", in Paul H. Hoch and Joseph Zubin, (Ed.), Psychopathology of Childhood, New York, Grune and Stratton, 1955, p. 228.

2. Schizophrenia and Autism.

a) **Psychiatric Nosology.**— Nosology refers to the science of classification of diseases. As such it represents not only the knowledge about the disease entity but reflects also the synthesis of the ideas of approach. The Kraepelinian nosography, although still the basic nosology of psychiatry, does not fit anymore the psychiatric reality of today. It reflects in a very systematic way the ideas of the nineteenth century with an overemphasis on classification and a relative neglect of therapy. According to Veith,²⁸ Kraepelin's main contribution was that he returned mental disease to the general field of medicine. His main conviction was that mental disease was basically due to the same causes as any other disease. Hence the principle requisite in the knowledge of mental disease was an accurate definition of the separate disease processes and the search for disease entities. According to Lilboorg:

²⁸ Ilza Veith, "Psychiatric Nosology: From Hippocrates to Kraepelin", in American Journal of Psychiatry, Vol. 114, No. 5, issue of November 1957, p. 385-391.

Kraepelin served well the Hippocratic tradition in psychiatry. Yet Kraepelin, steeped as he was in the purely neuropathological bias of which Griesinger was a good example some half century before him, lacked the clinical flair, the purely human, pulsating, responsive interest in the patient or the individual. And toward the close of the nineteenth century the interest in the human being as a functioning unit, as a person, was becoming pronounced in many a field.²⁹

On the other hand, Bleuler cared little for classifications and definitions of clinical entities. He was consistently opposed to reliance on diagnostic labels and avoided drawing a clear line of demarcation between the normal and the pathological. Bleuler's orientation was that of an existentialist; he was primarily interested in the manner in which the patient lived his own life in relation to reality. Hence his gravitation toward the psychological and sociological in trying to understand the dynamics of the mental disease in a given patient.

In the years following the two, psychiatry was enriched also by nosological categories of others. As Szasz points out:

²⁹ Gregory Zilboorg, "Eugen Bleuler and Present-Day Psychiatry", in American Journal of Psychiatry, Vol. 114, No. 4, issue of October 1957, p. 291.

All make good sense in the situations in which they originated. They have, however, since been removed, transplanted and combined with one another, and used in all manner of situations. Is it then surprising that our current psychiatric nosology is a modern Tower of Babel?³⁰

b) Schizophrenia.- In the last three decades the term was so widely used that it became "(...) the single most important diagnostic label in psychiatry",³¹ a kind of explain-all term that really does not explain. According to Wender, one

(...) does not know whether the term comprises one entity with one etiology, one entity with several etiologies, a group of similar entities with the same etiology, or a group of similar entities with different etiologies.³²

The implications of the term schizophrenia are so varied and broad that

(...) it is almost a term of negative reference: The category of all functional psychoses which are not manic-depressive. This would be useful - or at least clear - if the meanings of the term 'functional'³³ and 'manic-depressive' were certain, but they are not.

³⁰ Thomas S. Szasz, "The Problem of Psychiatric Nosology", in American Journal of Psychiatry, Vol. 114, No. 5, issue of November 1957, p. 408.

³¹ Ibid., p. 412.

³² Paul H. Wender, "Dementia Praecox: The Development of the Concept", in American Journal of Psychiatry, Vol. 119, No. 12, issue of June 1963, p. 1143.

³³ Ibid., p. 1143.

In a recent article Kahn and Pokorny³⁴ point out that the concept of schizophrenia as presently used is almost meaningless. There is no argument as to the patient labeled schizophrenic being sick, but the label does not imply diagnostic exactness and etiological knowledge. The disturbing fact in this illness is that the patient does not seem able to describe his pathological experience, a basic prerequisite in medical practice. It is this lack of communication that, according to the authors, brings to diagnostic vagueness.

Historically the concept of schizophrenia has its roots in the term "dementia praecox" coined by Morel³⁵ and later accepted by Kraepelin³⁶ as a label for a syndrome which enhanced three clinical entities: hebephrenia, paranoia, and catatonia. The defining characteristics of dementia praecox were: onset in young adulthood, loss of inner unity and weakening of volition.

34 Eugen Kahn and Alex D. Pokorny, "Concerning the Concept of Schizophrenia", in American Journal of Psychiatry, Vol. 120, No. 9, issue of March 1964, p. 856-860.

35 B.B. Morel, Traite des Maladies Mentales, Paris, (), 1860, mentioned in Paul H. Wender, Op. Cit., p. 147.

36 E. Kraepelin, Dementia Praecox and Paraphrenia, Edinburgh, Livingstone, 1919, mentioned in Paul H. Wender, Op. Cit., p. 1149.

It was Bleuler³⁷ who renamed the syndrome "schizophrenia", implying by this that the outstanding characteristic of the disorder is a split in the psychic functions, rather than a progression toward a demential state. As Zilboorg points out, schizophrenia was considered by Bleuler a complex gathering of psychological reactions:

It was therefore important to Bleuler to bring together all those psychopathological manifestations which showed a certain discrepancy between the various functions of the personality, a certain discrepancy between the word and the deed, a certain discrepancy between thought and actuality. It is these discrepancies that led Bleuler to invent the term 'schizophrenia', the splitting of those psychological functions of man which are usually integrated into one whole. Hence, Bleuler's concept of ambivalence, affectivity, autistic thinking, dereistic thinking, and syntony which gained general recognition and usage.³⁸

In the fifty years that passed since the term "schizophrenia" was coined, many attempts were made to clarify the etiology and to understand the nature of the disease. According to Cameron,³⁹ fifteen thousand professional articles and books have been written on the topic. Jackson who reviewed a great number of the papers writes:

37 Eugen Bleuler, "The Basic Symptoms of Schizophrenia", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 581-649.

38 Zilboorg, Op. Cit., p. 294.

39 Norman Cameron, Personality Development and Psychopathology. A Dynamic Approach, Boston, Houghton Mifflin, 1963, p. 577.

These papers disagree widely with one another and reflect the fact that schizophrenia is a singularly difficult disorder to investigate. A comparison with papers published thirty years ago reveals less change than might be expected; although formerly the biochemical approach was stressed much more than environment, the range of viewpoints is wide both then and now.⁴⁰

The W H O report⁴¹ on schizophrenia demonstrates that the confusion around the disease is a common international fact. It also shows that no real progress was made in understanding the disorder since Kraepelin and Bleuler.

With regard to etiology the authors of the report remain vague. They stress the fact that the disorder is of multi-factorial origin, and they differentiate between genetic and non-genetic causes of the disease, both of which still need research. Although recently much stress is put on major gene causation in schizophrenia, there is at present no answer to the question as to what is actually inherited. Planansky, in a review of research on heredity in the psychoses over the last forty years, concludes that present knowledge in genetics cannot yet offer an explanation. She writes:

40 Don D. Jackson, "Introduction", in Don D. Jackson, (Ed.), The Etiology of Schizophrenia, New York, Basic Books, 1960, p. 4.

41 "Report of World Health Organization Study Group on Schizophrenia - Geneva, September 9-14, 1957", in American Journal of Psychiatry, Vol. 115, No. 10, April 1959, p. 865-872.

Undoubtedly, a specific metabolic error would fit best into a genetic scheme, but there is no convenient enzyme in sight. Inheritance of vulnerability is mentioned, but such formulations only spotlight our ignorance. Needless to say, a gene-determined metabolic error would not entirely explain the pathogenesis.⁴²

With regard to the socio-psychological explanation of etiology of schizophrenia Arieti's definition is most widely quoted. According to him, schizophrenia is "(...) a specific reaction to a severe state of anxiety, originated in childhood, re-experienced and increased in some later period of life".⁴³ He sees the disorder as a regression manifested by escape from reality, break in logical thinking, retreat from social communication, and effective impairment. Bellak, on the other hand, sees schizophrenia as a syndrome of severe ego disturbance:

⁴² Karel Planansky, "Heredity in Schizophrenia", in Journal of Nervous and Mental Disease, Vol. 122, No. 1, issue of August 1955, p. 121-142.

⁴³ Silvano Arieti, Interpretation of Schizophrenia, New York, Brunner, 1953, p. 316.

This severe ego impairment may be the result of any number of somatic or psychogenic etiologic factors in various combinations. All the phenomena described as pertaining to schizophrenia can be conceptualized as a varying impairment of specific ego functions. (...)

The hypothesis is advanced that organic disorders and defects so often observed in childhood psychosis and in severe adult schizophrenias are also the result of severe disturbances of the mother-child relationship, which serves the undeveloped sensorium of the infant as a necessary polarizing factor; when absent, the somatic substratum is affected.⁴⁴

As of present neither psychiatry nor psychology has an answer as to what schizophrenia is. The different formulations or terms do not imply knowledge of etiology or nature of the disorder. It is only an expression of the personal approach of the investigator. The most discouraging thing about definitions and theoretical constructs, some of them examples of highly imaginative and creative thinking, is not that they are all wrong but, as Stainbrook⁴⁵ points out, that they are so insistently proposed as being exclusively right.

44 Leopold Bellak, "Toward a Unified Concept of Schizophrenia", in Journal of Nervous and Mental Disease, Vol. 121, No. 1, issue of January 1955, p. 65.

45 Edward Stainbrook, "Toward a Theoretical Model of the Determinants of Acute Schizophrenic Behavior", in Psychiatric Research Reports, No. 16, 1963, p. 1-7.

c) Autism.- When the term was introduced by Bleuler⁴⁶ as one of the most important symptoms of schizophrenia he referred to it in a twofold meaning: autism and autistic thinking. Autism, according to him, is an active, intentional turning away from the external world; it is a behavioral act. Autistic thinking, on the other hand, is a thought process that disregards reality; it is an intentional and directed thinking. Autism presupposes both the behavioral act of withdrawal and the thought process of disregard of reality. Autistic thinking, as such, must not be followed by autism. To avoid misunderstandings, Bleuler⁴⁷ later renamed it dereistic thinking.

In schizophrenia the symptom is that of autism, that is, an active withdrawal from reality, desocialization, and dereistic thinking. Both autism and autistic thinking can be normal phenomena and pathological symptoms. As Bleuler expresses it:

Most normal people have, particularly in their youth, spun some kind of yarn, but they always knew how to distinguish it from reality, even if the dreamt-up situation was so vivid that they experienced appropriate affects. This is normal autism. The play of fantasy in itself may be autistic or realistic (...)⁴⁸

46 Bleuler, "Autistic Thinking", in David Rapaport, (Ed.), Op. Cit., p. 399-437.

47 -----, Textbook of Psychiatry, New York, Macmillan, 1924, p. 45-47, mentioned in David Rapaport, (Ed.), Op. Cit., p. 399, footnote 1.

48 -----, "Autistic Thinking", Op. Cit., p. 418.

The pathological symptom of autism is different. It is a motivationally directed withdrawal from a reality that angers and irritates the person.

Because of the revulsion against the outside world and external stimuli, the patient's thoughts are turned away from ideas of reality and at times even from external impressions, and the psyche turns toward the pleasure in certain ideas.⁴⁹

Autism therefore is conceived of as a goal-directed process and presupposes active intentionality and experiential material.

The active and intentional aspect of autism is also stressed by others. In psychoanalytic theory the concept of autistic thinking was for a long time untouched due to Freud's⁵⁰ misconception of the primary stage of mental functioning in infancy. He assumed that infants hallucinate the fulfillment of their needs, a function that presupposes intentionality, imagery and experiential material at a stage when primary processes only prevail. Autism could thus accordingly be assumed at a stage when no intentionality is possible. Among psychoanalysts it was Fenichel⁵¹ who

49 Bleuler, "Autistic Thinking", Op. Cit., p. 415.

50 Sigmund Freud, "Formulations Regarding the Two Principles in Mental Functioning", in Collected Papers, New York, Basic Books, Vol. 4, 1959, p. 14-15.

51 Otto Fenichel, The Psychoanalytic Theory of Neurosis, New York, Norton, 1945, p. 83.

undertook the correction of Freud's misconception. He differentiates between the act of gratification which is possible in infancy as for instance in food intake, and the idea of gratification which develops later. At the stage of primary narcissism the child lives in a state without stable objects; with satisfaction, the object-image disappears and no past experience or intentionality is yet possible.

Accordingly, Rapaport⁵² formulates autism in the psychoanalytic conceptual language as an intentional revival of the image of past experience, which implies a withdrawal of libidinous cathezes from objects in the outside world and intentional cathexis of gratifying experiential material. It is thus perceived as a directed regression from secondary processes to primary processes.

Arieti⁵³ calls it teleologic regression, that is, an intentional return to earlier levels of adaptation and to lower levels of cognitive function, as a means of removing excessive anxiety and re-establishing some kind of psychic equilibrium.

⁵² David Rapaport, "Commentary", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 401, footnote 7.

⁵³ Silvano Arieti, Interpretation of Schizophrenia, New York, Brunner, 1955, p. 317.

Since Bleuler^{55,56} published his monographs on autism and autistic thinking nothing new has been added. In his two monographs he covered every possible aspect of the two phenomena. An analysis of the concepts shows that fundamentally they presuppose intentionality and a complex level of cognitive function.

3. Early Infantile Autism: Analysis of the Syndrome.

a) Description of the Syndrome.- Kanner and Eisenberg,⁵⁷ who conducted a twelve year follow-up study on forty-two children diagnosed as suffering from early infantile autism, present the following conclusions.

1) Characteristics of the Children.- The primary symptom is that of complete detachment from human relationships. This inability to relate themselves to people was evident in these children from the beginning of extrauterine life. It is not a withdrawal from formerly existing relationships but rather an extreme aloneness from the start. As reported by the parents,

55 Bleuler, "Autistic Thinking", Op. Cit., p. 399-437.

56 -----, "Autistic-Undisciplined Thinking", Op. Cit., p. 438-450.

57 Kanner and Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", Op. Cit., p. 227-239.

(...) these children, as infants, had failed to assume an anticipatory posture before being picked up, and never displayed plastic moldings which the normal child shows when cradled in his parent's arms.⁵⁸

They neither smiled, nor appealed for help, nor turned toward mother as an auxiliary executive of ego-functions in the external world. According to Kanner and Eisenberg:

This amazing lack of awareness of the feelings of others, who seem not to be conceived as of persons like the self, runs like a red thread through our case histories. We might cite a four-year old boy whose mother came to us with the account that on a crowded beach he would walk straight toward his goal irrespective of whether this involved walking over newspapers, hands, feet, or torsos, much to the discomfort of their owners (...). It was as if he did not distinguish people from things, or at least did not concern himself about the distinction.⁵⁹

The authors also relate that these children when pricked by a pin relate themselves only to the pin and the hand holding the pin, but never to the person that pricks. When the pin is removed the child shows no anger or any other affective expression. The person is never connected with the offending object.

A second symptom noted in these children was the failure to use language for purposes of communication. Some of them were completely mute; the others used language only

⁵⁸ Kanner and Eisenberg, "Early Infantile Autism, 1943-1955", in Psychiatric Research Reports, No. 7, issue of April 1957, p. 55-88.

⁵⁹ Ibid., p. 58.

in a parrot-like repetitious way showing precocity of articulation and an unusual rote memory, but no ability to combine words into original or personalized sentences.

A third symptom was that of obsessive desire for the maintenance of sameness. The children, on having accepted a pattern, will always repeat it in the same way. A walk always follows the same prescribed course and repetitious activities like spinning, turning on and off lights and flushing toilets preoccupy the child for long periods. Attempts to interfere with the pattern produces bursts of rage or episodes of acute panic.

A fourth symptom is a fascination for objects which are handled with skill in fine motor movements. The relationship to objects is so intense that even minor alterations, not perceived by others, are at once apparent to these children.

The last characteristic of these children pertains to their good cognitive potentialities. In the speaking group it could be discerned in the extraordinary, if perverted, use of language and unusual memory. In the mute children it is concluded from their performance on form tests.

Thorough pediatric examination of the children failed to reveal any physical abnormalities. Also EEG findings were not significant. Quantitatively, there is a preponderance of boys over girls in a ratio of four to one.

ii) Characteristics of the Family.- The first striking characteristic of the parents of these children is the presence of high intelligence. Among the first hundred children diagnosed as suffering from infantile autism, eighty-seven of the fathers and seventy of the mothers had been to college. A large number are professional people who have attained distinction in their fields.

In their personality the striking features are detachment, obsessiveness, and emotional coldness. They are:

(...) humorless perfectionists, more at home in the world of abstractions than among people, dealing with their fellow men on the basis of what one might call a mechanization of human relationships; they themselves had escaped the psychotic proportions of their offsprings' aloneness and sterile obsessiveness.⁶⁰

Among the two hundred parents only six were found with clinical psychiatric disorders. Among grandparents, uncles and aunts, altogether 773 persons, only twelve were afflicted with mental illness. Of 131 siblings, only ten could be suspected as emotionally disturbed. "Thus, if one limits his search for genetic factors to overt psychotic and neurotic episodes in family members, the results would appear to be negative."⁶¹

⁶⁰ Kanner and Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", Op. Cit., p. 228-229.

⁶¹ -----, "Early Infantile Autism, 1943-1955", Op. Cit., p. 60.

The case histories of the children reveal that they were reared by their own parents. There was no evidence of mistreatment, overt rejection or abandonment. But, as Kanner and Eisenberg point out:

These children were, in general, conceived, less out of a positive desire, than out of an acceptance of childbearing as part of the marital contract. Physical needs were attended to mechanically and on schedule, according to the rigid precepts of naive behaviorism applied with a vengeance. The usual parental attitude is cold and formal; less commonly it is laden with great anxiety. The child's worth seemed to lie in the extent to which he conformed to predetermined parental expectations: 'perfect' behavior, cleverness, 'self-sufficiency', and so on.⁶²

The child's preoccupation with objects and his self-isolation did not attract for a long period the parents' attention. On the contrary, it was considered by them as a sign of self-sufficiency and proper development. As the investigators point out:

One might accurately state that this was an environment that rewarded preoccupation with autistic interests and that provided the barest minimum of human contact compatible with the maintenance of physical health. Stimuli that might have fostered attention to or interest in the human environment were almost entirely absent.⁶³

b) Analysis of the Syndrome.- Notwithstanding the fact that the incidence of infantile autism is relatively

⁶² Kanner and Eisenberg, "Early Infantile Autism, 1943-1955", Op. Cit., p. 62.

⁶³ Ibid., p. 61.

small, the syndrome gained wide attention, one might say, because of two characteristics. First, because of the term autism attached to it in a time when research in autism and interest in schizophrenia became very popular in psychiatry and psychology. Second, because of the peculiar characteristic of a-social development observed in the syndrome; an emotionally loaded problem in human society. Society is more apt to accept and understand a-social behavior where mental deficiency is involved or in cases of pathological regression. But in the case of infantile autism the child, presumably intelligent and of highly intelligent stock, does not adapt from the beginning of extrauterine life to the social expectations of society. The child does not show the expected characteristics of the process of humanization and does not respond to the human in the environment.

That mainly these two characteristics are responsible for the wide interest in infantile autism one can conclude from the fact that the symptoms of this syndrome were known before the symptom-cluster of infantile autism was introduced. In the case of the Idiot Savant,⁶⁴ highly developed mental abilities, rote memory, and repetitive motor phenomena are

⁶⁴ Barry Nurcombe and Neville Parker, "The Idiot Savant", in American Journal of Orthopsychiatry, Vol. 33, No. 4, issue of July 1963, p. 737-740.

observed. In institutions for mentally defective, O'Gorman⁶⁵ found children with characteristics similar to infantile autism. In both cases, the label of mental deficiency put the children into a category of pathology already known. Even the diagnostic label infantile aphasia, coined by Gesell and Amatruda,⁶⁶ for cases with exactly the same symptoms as in infantile autism was not accepted and is almost unknown in psychiatric and psychological literature.

With regard to nosology, Kanner and Eisenberg⁶⁷ state that infantile autism should be regarded, at least for the time being, as a syndrome sui generis. But the fact is that in the case of infantile autism one deals with two syndromes, and it is still a question of whether the two are generically related. To the one belong the speaking children whose prognosis is to some extent favorable; to the other belong the mute children whose disorder is irreversible.

One of the most difficult problems in psychopathology is differential diagnosis. It is a known fact that the same

⁶⁵ Gerald O'Gorman, "Psychosis as a Cause of Mental Defect", in Journal of Mental Science, Vol. 100, No. 421, issue of October 1954, p. 934-943.

⁶⁶ Arnold Gesell and Catherine S. Amatruda, Developmental Diagnosis, New York, Hoeber, 1958, (second edition), p. 285-288.

⁶⁷ Kanner and Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", Op. Cit., p. 229-230.

etiological agent may produce different overt symptoms and hence a different clinical picture depending upon the developmental stage in which the pathogenic factor starts to operate. It is also known that similarity of symptoms does not always indicate a common etiology. In the case of infantile autism presence of language in the preschool age serves as a criterion for a favorable prognosis.

Cannot the same symptom serve as a criterion that differentiates between two syndromes generically not related?

Language used in any form presupposes responsiveness to a social stimulus. First-language learning, according to Brown,⁶⁸ is a process of cognitive socialization. Language is learned as a result of social imitation, and the appearance of the first words is a sign of the ability to turn towards the social stimulus. In an object-world without persons language cannot appear. Language does not appear as a result of phylogenetic development; it is derived and adopted from the social environment.

From the point of view of cognitive development language presupposes a constancy of imagery and an ability

⁶⁸ Roger W. Brown, "Language and Categories", in Jerome S. Bruner et al., A Study of Thinking, New York, Science Editions, 1962, p. 247.

to conceptualize. Concepts, according to Schilder,⁶⁹ are born of intentions directed toward the object, and intentions arise from affectivity.

The language used by the speaking children in infantile autism is not used for the purpose of social communication and designation. But essentially, from the point of view of the process of socialization and cognitive development, even this language implies social imitation and some ability to form concepts. One thus wonders if the terms autistic aloneness from the beginning of extrauterine life, and disturbance of affective contact from the beginning of life are proper when applied to the speaking group in infantile autism. That their language is not used for social communication cannot serve as a symptom of pathology at a stage of development when language cannot yet be used for this purpose. The other characteristic, namely, lack of designation is of importance here. It implies a defect in concretization. According to Schilder's⁷⁰ theory of speech development this phenomenon represents a break between the concept and the sign. The child merely reproduces linguistic concepts simply as memories and does not conceive of them as

69 Paul Schilder, Medical Psychology, New York, International Universities Press, 1953, p. 124.

70 Ibid., p. 126.

signs. Whether this phenomenon can be accounted for as a result of imageless thought is difficult to ascertain.

What can be said is that this child lives in a state of general awareness but is unable to become conscious of a concrete content. He cannot develop what Ach⁷¹ calls a determining tendency which orders and goal-directs the course of mental events, nor can he achieve an apperceptive fusion which correlates the stimulus with the appropriate memory schema. In Claparede's words:

The images which he perceives in the course of that life, which penetrate and become more or less fixated in his organic memory, lodge there like strange bodies; and if by chance they cross the threshold of consciousness, they do not evoke the feeling of 'me-ness'(...).⁷²

As a matter of fact the language of these children does not present any sign of idiosyncrasy as observed in normal young children. Their language is an exact repetition of concept-sounds without apperception. According to Claparede's⁷³ theory this type of language represents a connection between concepts but not between concepts and the

71 Narciss Ach, "Determining Tendencies; Awareness", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 15-38.

72 E. Claparede, "Recognition and 'Me-ness'", in David Rapaport, (Ed.), Op. Cit., p. 71.

73 Ibid., p. 71.

"me". This kind of language cannot even be called egocentric, because egocentrism presupposes a relation to the "me" as a center. Claparede⁷⁴ calls it a function of passive associations or idea-reflexes that do not imply recognition or voluntary recall.

The phenomenon thus implies a defect in concretization as found in aphasia. It seems that the linguistic phenomenon in the speaking children in infantile autism supports Schilder's⁷⁵ conception that not all cases of aphasia represent a disorder of abstract thinking; on the contrary, it implies in many cases an inability in concretization.

That the term autism can be applied neither to pathological nor normal conditions in such an early stage of life was discussed before. Recent developments in the study of child psychosis, as Reiser⁷⁶ points out, show that the term childhood schizophrenia should be reserved for cases in which the pathologic process begins after the age of five.

74 Claparede, Op. Cit., p. 71.

75 Schilder, "Studies Concerning the Psychology and Symptomatology of General Paresis", in David Rapaport (Ed.), Op. Cit., p. 564-565.

76 David E. Reiser, "Psychosis of Infancy and Early Childhood, as Manifested by Children with Atypical Development (Concluded)", in The New England Journal of Medicine, Vol. 269, No. 16, issue of October 1963, p. 845.

That one does not deal in the case of the speaking group with mental deficiency is proven from the fact that those children who improved could return to school and showed high psychometric ratings. Thus, the diagnosis of infantile aphasia for the speaking group, as established by Gesell and Amatruda,⁷⁷ seems the best one can apply here. As Schilder⁷⁸ points out aphasia cannot be considered only a language disturbance; it is primarily a thought disturbance. And in many cases aphasia and, especially, auditory agnosia brings to social withdrawal. The case of infantile autism can perhaps throw light on the developmental aspect of the etiology of aphasia which is still not exactly known.

With regard to the group of the mute children the picture is quite different. A comparison of the speaking and mute groups in infantile autism with regard to nosology shows that one speaks here about two different clinical pictures. The linguistic symptom in the speaking group indicates that, even with all other things being equal, the pathological process in the speaking group started at least at the end of the second year of life, whereas in the mute group the pathognomic factor operated from the beginning of extrauterine life.

77 Gesell and Amatruda, Op. Cit., p. 285-288.

78 Schilder, "Studies Concerning the Psychology and Symptomatology of General Paresis", Op. Cit., p. 564.

The level of intelligence can serve here as a second differential criterion. Kanner and Eisenberg⁷⁹ assume that the mute children in infantile autism are endowed with high intelligence because of their good achievement on form tests. Ritvo and Provence,⁸⁰ on the other hand, who tested the same type of children, age two and three, do not mention the term intelligence. They conclude that the very good form perception in these children, as revealed in the use of the formboard, the color forms and the geometric forms, suggests a strong interest in and ability to perceive boundaries, edges, and forms. The question here is: What does the performance on the formboard and with other form objects reveal?

The easy way is to say that intelligence is what the test measures and thus to assume from the high results that the children show high intellectual endowment. But it seems that in the case of infantile autism this way of thinking does not lead to proper conclusions. The question rather is twofold. First, to what does the mute child respond when given the test? To the appeal of the examiner and to the form or to the form alone? Second, what is the meaning

79 Kanner and Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", Op. Cit., p. 227-239.

80 Samuel Ritvo and Sally Provence, "Form Perception and Imitation in Some Autistic Children: Diagnostic Findings and Their Contextual Interpretation", in Psychoanalytic Study of the Child, Vol. 8, 1953, p. 155-161.

of the child's high achievement on this type of a test? Does it suggest a high level of intellectual endowment?

The first question is of importance because of the basic assumption that in infantile autism the child does not perceive and does not respond to the person at all. If one assumes that the child does not respond to the examiner in corpore, does he then respond to the vocal appeal of the examiner? According to Buehler,⁸¹ language has three functions: an appeal function, an expressive function, and a connotative function. At the same time:

Language is a symbol because of its relevancy to objects and relations; it is a sympptom because of its dependency on the speaker giving expression to his inner self; it is a signal because of its appeal to the listener, whose internal or external behavior serves as a guide, as do traffic signs.⁸²

If one is to assume that the child responds to the linguistic signal and symbol of the examiner it will follow that he is responding to social stimuli and understands the stimuli although he himself does not use them in overt vocal expression. Although such phenomena are known in cases of adult catatonia⁸³ it is highly improbable that this is the

⁸¹ Karl Buehler, Sprach Theorie, Jena, Gustav Fischer, 1934, mentioned in C. Alberto Seguin, "Language and Psychotherapy", in Journal of Nervous and Mental Disease, Vol. 121, No. 6, issue of June 1955, p. 564.

⁸² Ibid., p. 564.

⁸³ Arieti, Op. Cit., p. 317.

case in early infantile autism. The findings reported by Ritvo and Provence⁸⁴ indicate that these children do not show any minimal expression of social imitation and responsiveness.

It can thus be correctly assumed that the child responds only to the formboard and the geometric forms. This can hardly be considered an expression of high intellectual endowment. Recent experiments in development of perception reveal that perception of form and depth in solid objects (not two-dimensional pictures) is primitive, both ontogenetically and phylogenetically. In children, discrimination of form and depth at an edge is observed around six months of age.⁸⁵ More corroboration can be found from two other sources. A recent experiment with low grade mentally deficient children revealed that imbeciles have a good stereognostic discrimination ability; that is, discrimination of three dimensional objects when allowed to touch and trace the edges.⁸⁶ The same children show a good memory for once accomplished and learned tasks, which explains their tendency to perseveration.

⁸⁴ Ritvo and Provence, Op. Cit., p. 161.

⁸⁵ Eleanor J. Gibson, "Development of Perception: Discrimination of Depth Compared with Discrimination of Graphic Symbols", in Monographs of the Society for Research in Child Development, Vol. 28, No. 2, 1963, p. 23.

⁸⁶ N. O'Connor and Beate Hermelin, Speech and Thought in Severe Subnormality, New York, Macmillan, 1963, p.103-110.

In a study of thought disorders and their relation to language impairment, Luria found that:

(...) a connection formed without due participation of a verbal system is wholly dependent on the concrete conditions in which the stimuli are presented. It has been demonstrated experimentally that when, in the case of abnormal subjects, a complex system of connections has been successfully developed, it is an inert stereotype, rather than a dynamic system based on the isolation of an abstract distinguishing factor and changing with a change in certain conditions of the experiment(...).

A connection developed without the participation of speech can for long remain very inert, and can be remodelled only with great labour and very gradually. Sometimes it is impossible to cancel by words a 'rote learned' connection.⁸⁷

Accordingly, the assumption that the performance of the mute children in infantile autism is a sign of high intelligence can be considered as an error of statement. Should they then be considered as representing a new clinical picture of mental deficiency? It is not easy to answer this question at the present state of knowledge; differential diagnostic measures have to date no clear boundaries; hypotonia, low psychophysiological responsiveness, slow motor reactions and lack of kinesthetic feedback is observed in cases of childhood psychosis, in mongoloids, and in some mental retardates. Also, "(...) mental deficiency is not

⁸⁷ A.R. Luria, "The Role of Language in the Formation of Temporary Connections", in Brian Simon, (Ed.), Psychology in the Soviet Union, Stanford, Calif., Stanford University Press, 1957, p. 129.

unitary in its pattern of functional deficits and both the etiology as well as the nature and degree of central nervous-impairment are extremely diverse".⁸⁸ Therefore any attempt to generalize against a background of ill-understood conditions would seem premature.

The mute children's behavior on tests can perhaps, tentatively, be explained with Goldstein's⁸⁹ suggestion that it is a result of an innate impairment in abstraction which leaves the child with a very primitive repertoire of reactions.

c) Early Infantile Autism: Recapitulation.- The basic characteristic in early infantile autism which differentiates it from any other clinical picture in childhood psychopathology is the lack of affective awareness of human beings. In the speaking group this phenomenon is transitory; in the mute group it is irreversible. Kanner and Eisenberg⁹⁰ found that the mute children even at the stage of adolescence do not acquire speech, lack the affective response to human beings and still retain the typical signs of inner pre-occupation, obsessiveness, and perseveration.

⁸⁸ O'Connor and Hermelin, Op. Cit., p. 109.

⁸⁹ Kurt Goldstein, "Abnormal Mental Conditions in Infancy", in Journal of Nervous and Mental Disease, Vol. 128, No. 6, issue of June 1959, p. 545.

⁹⁰ Kanner and Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", Op. Cit., p. 234.

Ascribing the term autism to these children at such an early stage of development carries the false inference that the child at this stage is acting on the basis of capacities that require the kind of cognition and motivation for which there is no evidence at all in the early stages of life. Phillips,⁹¹ in a study done on twenty-three children, concludes that the autistic process cannot develop until the child is old enough to have developed the capacity to deal with abstractions and expectations.

Phenomena of lack of affective contact and impairment in social maturity are known also in institutionalized children. The studies of Bowlby,⁹² Goldfarb,⁹³ and Provence and Ritvo⁹⁴ on psychologic deprivation in infancy describe the listlessness, social withdrawal, and unresponsiveness of the institutionalized children, but neither of the authors applies the term autism to this condition. Whether one

91 E. Lakin Phillips, "Contributions to a Learning-Theory Account of Childhood Autism", in E. Philip Trapp and Philip Himelstein, (Eds.), Readings on the Exceptional Child Research and Theory, New York, Appleton-Century-Crofts, 1962, p. 606.

92 John Bowlby, Maternal Care and Mental Health, Geneva, World Health Organization, 1952, 194 p.

93 William Goldfarb, "Emotional and Intellectual Consequences of Psychologic Deprivation in Infancy: A revaluation", in Paul H. Hoch and Joseph Zubin, (Eds.), Psychopathology of Childhood, New York, Grune and Stratton, 1955, p. 105-119.

94 Sally Provence and Samuel Ritvo, "Effects of Deprivation in Institutionalized Infants", in Psychoanalytic Study of the Child, Vol. 16, 1961, p. 189-205.

ascribes autism to an assertion-disconfirmation conflict,⁹⁵ to hostile impulses that bring to fixed perceptions of self-other relationships maintained by barriers to communication,⁹⁶ or to the paranoid community,⁹⁷ in all cases it presupposes a period of socialization and a prior stage of a relatively healthy psychic organization.

In the clinical picture named early infantile autism one does not deal with a psychopathological phenomenon that can be called autism. It is rather a phenomenon of complete impairment in the process of socialization in the mute group, and a somewhat less severe blocking in responsiveness to social stimuli in the speaking group. This basic characteristic is accompanied also by other symptoms. Whether one can imply here a phenomenon of ego-fragmentation is not so clear. With regard to the speaking group, the characteristics of good memory, verbalization, and highly coordinated motor development as compared to the characteristics of perseveration, inner preoccupation and obsessiveness with sameness, suggest that one deals here with behavior expressed

95 Phillips, Op. Cit., p. 605.

96 Theodore M. Newcomb, "Autistic Hostility and Social Reality", in Alfred E. Kuenzli, (Ed.), The Phenomenological Problem, New York, Harper and Brothers, 1959, p.207.

97 Norman Cameron, The Psychology of Behavior Disorders, Boston, Houghton Mifflin, 1947, p. 486-489.

on different levels of ego development. But with regard to the mute group, and especially when one considers that their achievement on form tests is not an indicator of high intelligence, no ego-fragmentation can be implied.

It seems thus proper to conclude that in the case of what is called early infantile autism one deals really with two different psychopathological syndromes to which the term autism cannot be applied. From the point of view of differential diagnosis the term early infantile autism is an error in statement but, perhaps, by naming this syndrome so, Kanner⁹⁸ attracted scientific attention to a peculiar and unusual psychopathological phenomenon in which the genesis of the process of humanization is involved.

The turn, in the last decade, toward the study of early childhood development and the pathologic vicissitudes of the child in a family setting is a result of this effort to understand the genesis of the process of humanization. The results of the studies confirm that for the infant to develop human relationships a close contact with mother is needed, but the psychological process of this contact is not understood yet. The fact that the infant is utterly dependent upon human care for his safety and survival cannot

⁹⁸ Leo Kanner, "Early Infantile Autism", in Journal of Pediatrics, Vol. 25, No. 3, issue of September 1944, p. 211-217.

explain the process of humanization. The first need of the infant, according to Goldfarb,⁹⁹ is to be maintained physiologically, but physiological maintenance does not mean humanization. The case of the savage of Aveyron¹⁰⁰ and the mute children in infantile autism are perhaps the best examples. Supply of food, shelter, and safety does not bring automatically social development or a tendency to acquire the psychological human traits although the predisposition toward this is inherent in the infant. To use Allport's¹⁰¹ conceptual language, satisfaction of physiological needs in a biological system does not change it automatically into a psychological system.

The phenomenon of imprinting in animals proves, as Lorenz¹⁰² suggests, that animals do not recognize their own species instinctively. The first object-relation has to be elicited from the animal by a member of his species at a

⁹⁹ Goldfarb, "Emotional and Intellectual Consequences of Psychologic Deprivation in Infancy", Op. Cit., p. 114.

¹⁰⁰ Richard M. Silberstein and Helen Irwin, "Jean-Marc-Gaspard Itard and the Savage of Aveyron: An Unsolved Diagnostic Problem in Child Psychiatry", in Journal of the American Academy of Child Psychiatry, Vol. 1, No. 2, issue of April 1962, p. 314-322.

¹⁰¹ Gordon W. Allport, Pattern and Growth in Personality, New York, Holt, Rinehart and Winston, 1961, p. 100-101.

¹⁰² Konrad E. Lorenz, "Imprinting", in Robert C. Birney and Richard C. Teevan, (Eds.), Instinct, New York, Van Nostrand, 1961, p. 52-64.

given maturational stage of development. After this critical period elicitation of this response is impossible. The extent to which failure of imprinting changes the nature of the animal is perhaps best expressed by Scott, who raised a sheep in conditions not allowing imprinting, "(...) her entire nature had been changed; she was a very unsheeplike sheep".¹⁰³

Is there such a critical period in the development of the infant? Although no scientific evidence of this can be produced at present, more and more psychologists consider it as possible. Allport writes:

It is conceivable that the infant's mother, as well as other features of its environment, becomes imprinted in such a way that the baby early comes to 'identify' with the mother, and also comes to regard its familiar environment as a safe and desirable frame of life. It may also be that at certain 'critical phases' the child becomes susceptible to new forms of imprinting.¹⁰⁴

Weiland and Rudnik, in a study of childhood psychosis, conclude:

¹⁰³ J.F. Scott, "The Process of Socialization in Higher Animals", mentioned in Sylvia Brody, Patterns of Mothering, New York, International Universities Press, 1956, p. 108.

¹⁰⁴ Allport, Op. Cit., p. 92.

All that can be stated at the present time is that some activity attendant to the gratification of the infant when he is in a helpless condition is possibly related to the development of the social response in man as it is in lower primates. It matters little whether this experience is referred to as imprinting or is attributed to certain experiences which occur in the human infant at a time when he is most helpless and dependent. The only essential hypothesis is that some experiences are critical in that they serve to introduce the infant to his first human objects and, perhaps, determine his subsequent behavior to them. (...) If the child does not undergo the appropriate experiences at the critical period, or if his constitution is so crippled that he cannot make use of the particular experiences which are assumed to engender object relatedness, we can anticipate that he may not become aware of, and deal with, human beings.¹⁰⁵

That early experience plays an important role in the mental development of the child is today a known fact. But when an attempt is made to put this proposition into more specific terms many questions arise that the answers to them are not obvious. It is still uncertain as to what kind of experiences have an effect and how intense they must be to have one, or at what developmental stages the effects are maximal for different functions. In other words, which parameters of developmental experiences are significant to developing object relationships are not known. In many pathological cases one finds siblings not affected by any pathology. In infantile autism the so-called coldness and

¹⁰⁵ I. Hyman Weiland and Robert Rudnik, "Considerations of the Development and Treatment of Autistic Childhood Psychosis", in Psychoanalytic Study of the Child, Vol. 16, 1961, p. 557.

detachment of the parents did not affect other children in the same family. Some parents of these children do not fall into the category of cold, detached, and "abstract-minded" people.

The postulate that proper mental development is a result of some amount of indulgence and frustration nobody questions today. And although the range of stimulation and restraint within which the psychic health of the infant can be kept safe from pathological deviation is still unknown, one can assume that with more effort in the studies in habituation¹⁰⁶ it will be found. But this is not the point of consideration here. The question is whether ego development is automatically also social development. For Piaget¹⁰⁷ the problem is clear. Development of intelligence is, for him, a gradual process of socialization. Piaget is not concerned with the development of the ego; by speaking of infant egocentricity he even assumes the existence of a differentiated ego at such an early stage. His is a theory of genetic and experimental epistemology and the subject matter is the

106 Wagner H. Bridger, "Sensory Habituation and Discrimination in the Human Neonate", in American Journal of Psychiatry, Vol. 117, No. 11, issue of May 1961, p. 991-996.

107 Jean Piaget, "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life", in Edward Douglas Adrian, et al., (Eds.), Factors Determining Human Behavior, Boston, Harvard University Press, 1937, p. 32-48.

development of the logic of relationships through which the ego is subordinated to some objective system of reference.

On the phenomenological level of explanation development is a process through which the overt changes into the inner, sensations into engrams, and external events into functional concepts. It is a process through which a kind of cooperation is established between the organism and the environment, between the subject and the object, mediated by thought processes.

Only the dynamically and socially oriented theories stress the relationships between mother and infant as an important factor in mental development. Kurt Lewin¹⁰⁸ speaks about a social bond between mother and infant as a necessary condition; the turn toward the social environment in the infant is a result of social conditioning through the mother. Erikson, although of the same opinion, is more elaborate:

¹⁰⁸ Kurt Lewin, A Dynamic Theory of Personality, New York, McGraw-Hill, 1935, p. 74.

The infant's first social achievement, then, is his willingness to let the mother out of sight without undue anxiety or rage, because she has become an inner certainty as well as an outer predictability. Such consistency, continuity, and sameness of experience provide a rudimentary sense of ego identity which depends, I think, on the recognition that there is an inner population of remembered and anticipated sensations and images which are firmly correlated with the outer population of familiar and predictable things and people.¹⁰⁹

What is it then in the nature of this infant-mother contact that brings about in the infant the turn toward the social stimuli? Sullivan's¹¹⁰ concepts of tenderness and empathy are too mysterious, as he himself speaks about them, to be understood. It seems that Werner's¹¹¹ theory allows an understanding of the genesis of the process of humanization in the infant. According to him awareness of the outer, of objects, of things constituting the daily perceived environment in infancy, depends on the movement of these objects. It is the things-of-action that break the static, undifferentiated picture of outer world. A dynamic apprehension of things in infancy comes only as a result of movement, the movement of the object and the movement of the infant. The

¹⁰⁹ Erik H. Erikson, Childhood and Society, New York, Norton, 1950, p. 219.

¹¹⁰ Harry Stack Sullivan, The Interpersonal Theory of Psychiatry, New York, Norton, 1953, xviii-393 p.

¹¹¹ Heinz Werner, Comparative Psychology of Mental Development, New York, International Universities Press, 1948, (revised edition), xii-564 p.

infant's reactions are at first directed primarily toward the dynamic properties of objects. It is the movement of a thing-of-action that gives rise to motor-affective reactivity.

In the world of the infant mother is the only constant thing-of-action. It is through her movements, appearance and disappearance that she establishes a dynamic constancy in the environment through which other objects are differentiated later. One might say that upon the orderliness of the mother's movements the orderliness of the infant's motor-affective perception and reactivity depends. With birth the infant's relation to the external world is synaesthetic on the sensory-physiological level and syncretic on the perceptual-cognitive level of relations. This state of consciousness is, according to Werner,¹¹² a mere state of feeling, a total sensation in which there is no differentiation between subject and object. The infant moves only according to the undifferentiated biological feeling of a need. It is the movement in the external world which establishes the first subject-object relation, the first motor-affective reactivity toward or away from the outer thing-of-action. Whether this first primitive relation is a kind of imprinting which releases certain inner potentials, or is an act of conditioning is difficult to

¹¹² Werner, Op. Cit., p. 65.

discern. The objections to experimental studies with children are obvious. But the main point is that in a static, unmoving environment the cognitive functions and object-relations cannot develop.

It is this first experience of the outer world through the movement of mother that starts the process of departure from the biological source and is the genesis of the process of humanization. In the realm of intelligence it is the point of departure from physiological adaptation toward the development of logic of relationships; in the realm of socialization it is a start of the sense of trust in the mother as a representative of the external world, and in the realm of cognitive development it is the first delay in synaesthetic physiological reaction and appearance of attention, intention, and selective response. The three processes are interwoven and not given to differentiation; they constitute the three basic processes of ego development, and the core of ego autonomy. In the normal development the concept of ego autonomy does not mean disregard of the external reality; it is rather the conscious understanding of the dual meaning of the external world as acting upon the ego and at the same time being an object for the ego's action. On the functional level, ego autonomy means selective receptivity from and conscious, selective acting upon the external world. Both the development of ego functions

and the structuring of constant objects are closely inter-related and represent a process of moving away from the biological source. Both are also dependent upon the presence of the human thing-of-action through a critical period of their development. Ego development enhances in it social development.

The mute child in infantile autism is perhaps the best example of the undeveloped ego. In Rapaport's¹¹³ conceptual language it is an impairment in the mobility of cathexis which blocked any possibility of motor-affective reaction to movement and did not allow to develop an experiential matrix for expectation and intention. It is thus conceivable that the child, although maturing biologically, is in the area of cognitive development still at a level of physiological adaptation. The child's motor stereotypy, perseveration and obsessive desire for sameness are representative of this inability in mobility of cathexis. The resulting inability for social relations is really a sign of this impairment to feedback to any movement with a motor-affective reaction. Whether this condition is a result of

¹¹³ David Rapaport, "Toward a Theory of Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 693.

unusual sensitivity¹¹⁴ in the sensory modalities which renders the child unprotected from external stimuli and does not allow him, from the start of extrauterine life, any motor-affective reaction to movement, or whether it is a result of cerebral dysfunction is still unknown. A recent study¹¹⁵ on EEG abnormalities in autistic and schizophrenic children revealed in the autistic children an incidence of EEG abnormalities of 58.6 per cent. It is possible that with the development of more refined techniques for detection of cerebral dysfunction in neonates many a mother will be relieved from the nightmare that it was her unconscious rejecting attitude which brought about the pathology of the child.

In conclusion, it has been shown that the syndrome early infantile autism represents in fact two different clinical pictures to both of which the concept of autism cannot be applied. With regard to the speaking group in infantile autism the label of infantile aphasia as suggested by Gesell and Amatruda¹¹⁶ seems more proper.

114 Paul Bergman and Lybille Tso Long, "Unusual Sensitivities in Young Children", in Psychoanalytic Study of the Child, Vol. 3-4, 1949, p. 333-352.

115 Philip T. White, et al., "EEG Abnormalities in Early Childhood Schizophrenia: A Double-Blind Study of Psychiatrically Disturbed and Normal Children During Promazine Sedation", in American Journal of Psychiatry, Vol. 120, No. 10, issue of April 1964, p. 950-958.

116 Gesell and Amatruda, Op. Cit., p. 285-288.

The mute group represents a completely different clinical picture. It is an impairment in the mobility of osthesis, that is, an inability for a motor-affective reaction to movement, a prerequisite for cognitive development. These children represent a pathology that did not allow the imprinting or the conditioning basis to the genesis of the process of humanization. They are fixated at a level of physiological, pre-intentional adaptation. One cannot speak of autism or autistic thinking at such a level of functioning.

CHAPTER IV

THE GENESIS OF AUTISM

In chapters two and three an attempt was made to clarify two basic points, namely, that the term autism cannot be used to describe cognitive functioning in the preschool child, nor can it be used to describe Kanner's¹ psychopathological syndrome. Although analogies are sometimes helpful in that they point out a general direction for comparison they carry with them the danger of overlooking the essential difference. They are rather very wide generalizations which, in many cases, instead of clarifying confuse the issue. If the thinking of the primitive man in comparison to the civilized man is to be considered as of diffuse, concrete and syncretic character, what would then be the thinking of the child in primitive tribes? Or if the thinking of primitive men is to be considered autistic as found in many cases of schizophrenia in civilized people, what then will one call the thinking of a primitive schizophrenic?

¹ Leo Kanner, "Early Infantile Autism", in Journal of Pediatrics, Vol. 25, No. 3, issue of September 1944, p. 211-217.

According to Werner,² the reasoning of primitives so far as it participates and is embedded in the activity of everyday life exhibits no difference from that of the man of western culture; it is pragmatic, concrete, and individual. The main difference between the two is manifest only in the realm of theoretical reflection. While the typical western reflection is universal in nature and abstract, the thought of the primitive man "(...) is pinned down to the reality of the thing-like world".³ One can hardly call it autism.

The same is also true when one considers the different kinds of thinking found in western culture, whether ontogenetically viewed or in differentiation between normal and abnormal. The point becomes more clear when one compares descriptions of behavior in normal children and in children of the same age labeled as schizophrenics.

According to Werner,⁴ the normal child's world is a world of action and a world of nearness at hand. The structure of reality involves a relative lack of differentiation between perception and imagery. The child does not differentiate between the dream and waking reality, and consciousness

2 Heinz Werner, Comparative Psychology of Mental Development, New York, International Universities Press, 1957, revised edition, xii-564 p.

3 Ibid., p. 299.

4 Ibid., xii-564 p.

or fiction, of the artificially produced, is alien to his mentality. There is no fundamental difference between the reality of play and that of everyday life. It is to this kind of behavior in early childhood that the label of autistic thinking and autism is usually applied in psychological literature.

The above label is also applied to schizophrenic children who show the following characteristics:

They do not know who they are, what sex they are, what relationship they have to their parents or to people in their immediate environment. They do not know who other people are. They are preoccupied with space and time.⁵

These children have difficulties in identifications and relationships; they cannot relate to others, nor can they relate experiences to themselves. In essence, all the above characteristics refer primarily to the child's inability to relate to people, particularly to the parents.

In both descriptions the basic immaturity or inability is that of lack of differentiation, but of a different nature. While the normal child is reality-oriented, for the schizophrenic child reality is burdensome and warped. Can the term autism be applied to both of them?

⁵ Alfred M. Freeman, "Maturation and Its Relation to the Dynamics of Childhood Schizophrenia", in "Childhood Schizophrenia: Round Table 1953", in American Journal of Orthopsychiatry, Vol. 24, No. 3, issue of July 1954, p. 489-490.

The confusion stems primarily from the misuse of the term autism. The term, as seen from the discussion in the foregoing chapters, denotes primarily an intentional turn towards an inner world where strivings and wishfulfilment are easily achieved. In early infantile autism the so-called autistic aloneness is manifest from the beginning of extrauterine life; this in itself is contradictory to what is meant by autism.

With regard to childhood schizophrenia, the point is perhaps best clarified by Ekstein.⁶ The basic characteristic of this clinical entity, according to him, is the indulgence in fantasy life. He points out that in therapy the schizophrenic child has to be helped to gain insight into his fantasy; the child has to understand that fantasy cannot control the present neither the future. Ekstein's discussion of a case of a nine year old boy brings about perhaps one of the basic problems of childhood schizophrenia, namely, can this clinical entity appear in early childhood when fantasy is not possible yet?

The same aspect is also evident with regard to the application of the term autism to normal thinking in young

⁶ Rudolf Ekstein, "The Space Child's Time Machine: On Reconstruction", in the "Psychotherapeutic Treatment of a Schizophrenoid Child", in "Childhood Schizophrenia: Round Table 1953", Op. Cit., p. 492-506.

children. The source of the misunderstanding can be found in Piaget's theory of cognitive development. He distinguishes three developmental stages of cognitive relations to reality: autism, realism, and objectivity. Realism and objectivity are of no concern here, but the first stage, autism, is described by him as follows:

The first is that which precedes any clear consciousness of the self, and may be arbitrarily set down as lasting till the age of two or three, that is, till the appearance of the first 'why', which symbolizes in a way the first awareness of resistance in the external world. As far as we can conjecture, two phenomena characterize the first stage. From the point of view of logic, it is pure autism or thought akin to dreams or daydreams, thought in which truth is confused with desire. To every desire corresponds immediately an image or illusion which transforms this desire into reality, thanks to a sort of pseudo-hallucination or play.⁷

He uses the term autism in a twofold way: as a synonym of a certain kind of thinking, which does not differentiate between reality and desire because of a primitive yet stage of development of logic of relationships. At the same time he also applies the term autism to non-communicable and undirected thought.⁸ In other words, he applied the term in both cases to a primitive level of reality relationships; while the first carries a cognitive implication, the

⁷ Jean Piaget, The Child's Conception of Physical Causality, London, Kegan, 1930, p. 202-203.

⁸ -----, The Language and Thought of a Child, New York, Meridian Books, 1955, p. 65-66.

other refers to the process of socialization. He does not imply that the child is intentionally withdrawn from the external world.

Lack of communicability at this stage can be understood as a result of linguistic immaturity where facility with sentences has not yet been acquired; this behavior does not imply intentional avoidance of communication. Piaget⁹ himself states that a child from the moment he acquires speech and until age seven-eight cannot keep a single thought to himself. It is also an indication that communication proper with the other can be established only with the development of a mental representation of the self. The child cannot keep a thought to himself because there is not yet a self, that is, a center around which experiences accumulate and receive their particular meaningfulness. The child, one might say in explanation of his lack of verbal continence, thinks aloud. Without an inner world he cannot withdraw, neither in speech nor in behavior; wishfulfilment can be found only in the external world.

The undirectedness of his thought can mean here only that it is socially undirected, but in a very particular meaning. It certainly is not reality or object undirected. The undirectedness of the child's thought does not stand

⁹ Piaget, The Language and Thought of the Child, Op. Cit., p. 61.

here as opposed to reality-orientation, nor does it imply withdrawal toward an inner world. It rather implies a stage of development in which polarity between self and the other is not established yet. The child at this stage is an a-social being, in the meaning that the world around is an extension of a rather global and undifferentiated "I" without ability yet of reference to a particular "me".

Socialization, as Schilder¹⁰ points out, like reality-directedness is not an acquisition of thinking but a basic implication of it. The body image as well as the object are built up by continuous interchange with other human beings; they are socialized. Socialization is thus the fundamental form of human experience. From the first perception of mother until the initiation into the peer group as an individual, around age seven-eight, the child's thinking is always directed toward an external audience.¹¹ The child cannot at this stage withdraw autistically because it would, theoretically, mean withdrawal toward nothingness. The regression observed in psychopathology

¹⁰ Paul Schilder, Mind: Perception and Thought in Their Constructive Aspects, New York, Columbia University Press, 1942, xii-432 p.

¹¹ Piaget, The Language and Thought of the Child, Op. Cit., p. 61.

of early childhood is rather, as Bowlby¹² points out, a regression to primitive functioning.

Another point which must be borne in mind is that thinking is essentially an activity. According to Schilder, it is an "(...) object-directed act checked by acts directed towards other objects".¹³ Or, according to Bruner,¹⁴ it is an act of going beyond the information given, that is, extension of evidence according to past experience and a logic of relationships. In every act of thinking two aspects are reflected: the affective reflected in the intention, and the cognitive reflected in the object. Developmentally viewed, thinking proper cannot, according to Bartlett,¹⁵ function before the onset of perceptual anticipation, or before verbal self-regulation of behavior begins, as O'Connor and Hermelin¹⁶ maintain.

12 John Bowlby, Maternal Care and Mental Health, Geneva, World Health Organization, 1951, p. 52-58.

13 Paul Schilder, "On the Development of Thoughts", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 509.

14 Jerome S. Bruner, "Going Beyond the Information Given", in Jerome S. Bruner, et al., Contemporary Approaches to Cognition, Cambridge, Mass., Harvard University Press, 1957, p. 41-59.

15 Frederic Bartlett, Thinking: An Experimental and Social Study, New York, Basic Books, 1958, p. 83.

16 N. O'Connor and Beate Hermelin, Speech and Thought in Severe Subnormality, New York, Macmillan, 1963, xi-122 p.

Perceptual anticipation which gives rise to the directionality of thinking is based on two ingredients: feeling and form which are not logical complements. While feeling is spontaneous and indifferent to form, the latter connotes regulation, formality and repression of feeling.¹⁷ It is because of this fundamental aspect that thinking proper has to be subordinated to some objective system of reference, a logic of relationships, which coordinates form and feeling. Developmentally viewed thus, thinking is a process of structuring and channeling of feeling and of broadening the experiential matrix of forms through conceptualization. Considering thus different kinds of what one might call in a very general way illogical thinking, it must be assumed that some manifestations of this improper thinking will be due to the action of feeling; others, on the other hand, will be due to a developmentally restricted amount of knowledge.

This differentiation is of basic importance when one attempts to discuss the question of the genesis of autism. Cognitively considered, the child till the age of five-six relates to reality on the basis of two primary conceptual formations. The concept-basis which presupposes

¹⁷ Susan K. Langer, Feeling and Form: A Theory of Art, New York, Scribner's, 1953, p. 17.

permanence of the object, and the concept-sign which is an expressive validation of this achieved permanence. At this stage the concept-sign can be veridical or non-veridical, but its non-veridicality does not imply a personal meaning. The child learns language through hearing, and the non-veridical linguistic expression, the concept-sign, is rather a result of recognizing the speech-melody without grasping the meaning. To assume along with Sullivan¹⁸ that immediately with first vocal expressions the child attaches to it a personal meaning would mean to disregard completely evidence from developmental psychology.

Only with the end of the toddler stage and, cognitively considered, with the end of the stage of inductive thinking, the child, through identification and imitation, achieves concept-meaning. Perhaps it is important to note here that the concept-meaning achieved by the child at this stage is not always the objective-scientific meaning. Rather it is the meaning prevalent in his narrow social environment. With the achievement of the concept-meaning the concept-sign becomes veridical or might be changed completely according to the meaning. It is at this stage

¹⁸ Harry Stack Sullivan, The Interpersonal Theory of Psychiatry, New York, Norton, 1953, p. 182.

that one can speak about feeling interfering with thinking in the proper meaning of autism as "affects at work".¹⁹

With the development of concept-meaning, the social reality becomes distinct in the child's psychic organization and the first conception of individuality appears. Together with the above another reality becomes apparent to the child, namely, that objective knowledge of and practical orientation in reality do not necessarily coincide. He perceives that not every objective thought, vocally expressed by him, is approved by the environment. The first realization occurs to him that a degree of avoidance of outer reality, or of denial, can often be harmless and in certain situations useful. This is the child's first initiation into an inner and uncommunicative world; a world in which one can retain his personal meanings without a conflict with the environment. It is also the child's first grasp of relativity of things; it occurs to him that the concept-meaning not always gets its meaning from objective attributes of the object, but in many instances from a subjective but socially shared authoritarian insistence.

In thinking as a process, at this point of development, one might speak about a double delay: one, to check

¹⁹ Eugen Bleuler, "Autistic Thinking", in David Rapaport, (Ed.), Op. Cit., p. 399-437.

the problem with the objective data in past experience; two, to check the results of the first process with the probability of their acceptance in the immediate environment according to the child's uncommunicable subjective experience. Along with the awareness of the self comes thus also the feeling that what is adaptive in one respect may interfere with adaptation in another. This layer of subjective experience - part of which might be scientifically objective but cannot be expressed in the child's particular environment, and part of which is subjective in the meaning that it is based on instinctual drives which cannot find a socially accepted form of behavior - becomes the basis of the child's autistic withdrawal. It forms the apperceptive mass that is uncommunicable or which cannot be expressed undisguised.

As mentioned in chapter two, autism is fundamentally a kind of thinking and as such it is a relation. Whether as a relation to the outside world as in normal thinking, or as a relation to the inner world as in autism - thinking is not possible before the development of concept-meaning. Autism, in Bleuler's²⁰ meaning as a directed, wishful thinking accompanied by a withdrawal from the external world, is not possible before the development of the concept "me", that is, the first awareness of self as an entity apart from the

20 Bleuler, Op. Cit., p. 399-437.

surrounding world. The feeling of "me-ness", according to Claparede,²¹ is the tie that binds the memory-image to our "me", and which allows also voluntary, selective recall.

If one considers the above with regard to the age of onset of schizophrenia, the old psychiatric suggestion that schizophrenia sets on not before the age of adolescence does not seem so far-fetched. It should not be forgotten that in normal life the stage of development mostly prone to autism is adolescence. Characteristic to this stage is a twofold detachment from reality. One, as Erikson points out, is a turn to the past to "(...) refight many of the battles of earlier years"²² in search for a new sense of continuity and sameness. The other is the known psychological fact of the adolescent's identification with persons and heroes not in his immediate environment. In this double detachment from reality, the relative dissolution of the self-experience, and role diffusion, become - if re-evoked etiological factors enter the scene - a basis for schizophrenia. Accordingly, it seems more proper to speak about schizophrenia as an impairment in the internal stability of the self rather than a fragmentation of the ego. The

²¹ E. Claparede, "Recognition and 'Me-ness'", in David Rapaport, (Ed.), Op. Cit., p. 73.

²² Erik H. Erikson, Childhood and Society, New York, Norton, 1950, p. 228.

implication for childhood schizophrenia would thus be that it cannot appear before the age of seven-eight years, that is, before the first awareness of self emerges in consciousness and renders autism possible.

SUMMARY AND CONCLUSIONS

This study represents an attempt to investigate through a critical inquiry of psychological sources the problem of the genesis of autism. More specifically, this investigation was designed to give an answer to two questions:

- i) the plausibility of autism in early mental life; and
- ii) the applicability of the term autism to the psychopathological syndrome early infantile autism.

The second aim of this study was to offer a theoretical explanation with regard to the genesis of autism, namely, when exactly in the course of child development the term autism is applicable whether to describe a phenomenon in normal thinking, or as a symptom of a psychopathological withdrawal from reality.

The results of the study confirm, if one may speak of confirmation in a theoretical investigation, that the term autism cannot be used to describe phenomena, both normal and pathological, in the child's mental life before the emergence of the awareness of self as an entity apart from the surrounding world. The misuse of the concept of autism stems from several fallacies in psychological literature.

The first, and the most important particularly to developmental psychologists, is the loose use of the term child or childhood in literature. What is mostly overlooked

is that childhood is a collective term and, when used without specification of age or stage of development, refers rather in a vague way to ontogenetically lower levels of behavior but does not designate its specific characteristic.

The second misunderstanding stems from a lack of proper differentiation between the emergence of symptoms of a clinical entity and the etiological factors that in due course bring about these symptoms. What is often overlooked particularly in child psychopathology is that etiological factors gain their significance in the light of later manifest pathology. In themselves early sensitivities, intolerance of frustration, and overwhelming anxieties only designate from the point of view of prevention that some deviation in development will occur. They cannot predict exactly what clinical entities will appear, neither can they be considered in early childhood as precursors of a specific clinical entity.

The third misconception is found in the very vague use of the concept of ego. This point is of particular importance due to the fact that an overwhelming part of literature about child development and child pathology is at present written in the conceptual language of ego psychology.

Due to the above one finds in psychological literature many misuses of concepts through analogous comparisons or extrapolation. With regard to autism two basic points

were stressed in this study. Although autism connotes affective thinking, this characteristic in itself cannot explain autism. Autism in its basic meaning represents a withdrawal from the external world accompanied by a preponderance of inner life. Viewed in this light one cannot possibly speak about autism in early childhood before the emergence of an inner world.

The second point, already implicit in the first, is that one cannot apply the term autism also to clinical entities in early childhood whether as a symptom or a syndrome. With regard to early infantile autism a hypothesis was extended that one deals here with two different syndromes of a different etiology or perhaps of a different stage of onset.

In conclusion this study brought about an explanation of the genesis of autism as possible only with the emergence of the self in consciousness.

The investigation and its findings suggest a wide array of possibilities for further research. Perhaps one can be in the direction of elaborating on the so-called magic thinking and omnipotence of thought in early childhood. The interesting point here is the microgenetic differentiation between non-veridical but reality-oriented thought and the first emergence of autistic omnipotence in thought.

Another research important in this area is in the field of autistic language and its first appearance. As a study in concept-meaning-formation it will be of scientific importance to find when exactly does the child in the course of development attach personal meaning to the concept and thus brings to a change of the concept-sign.

In the field of child psychopathology it is of importance to find out the exact difference between the phenomenon of ego-fragmentation and its particular meaning for later pathology and the phenomenon of the split between the ego and self which is basic for the onset of schizophrenia.

ANNOTATED BIBLIOGRAPHY

Allport, Gordon W., "The Ego in Contemporary Psychology", in Psychological Review, Vol. 5, No. 5, issue of September 1943, p. 451-478.

The writer discusses eight different conceptions of the ego, and traces the development of the concept since the beginning of this century.

Andrews, Eva, Daniel Cappon, "Autism and Schizophrenia in a Child Guidance Clinic", in Canadian Psychiatric Association Journal, Vol. 2, No. 1, issue of January 1957, p. 1-25.

The writers summarize over five years of experience in diagnosis of autism and schizophrenia. According to them a degree of autism is apparent in infants and a degree of schizophrenia exists in nuclear fashion wherever phantasy invades consciousness and perception. They differentiate between normal autism, apparent in every infant; psychogenic autism, due to environmental stress; cryptogenic autism, characterized by minimal strain in life with yet no discoverable factors; and organic autism, due to an organic factor.

Arieti, Silvano, Interpretation of Schizophrenia, New York, Bruner, 1955, xviii-540 p.

A comprehensive description of schizophrenia, its symptomatology, the psychodynamics and formal mechanisms. Although the book expresses mainly the personal approach of the writer it covers also the latest findings in different fields of investigation with regard to schizophrenia. The clinical entity is conceived of as a regression, which represents an escape from reality through retreat of reason, retreat from society and retreat from emotions.

Bartlett, Frederic, Thinking: An Experimental and Social Study, New York, Basic Books, 1958, 203 p.

The book represents a summary of the author's long years of experimentation in the field of thought processes. Thinking is here presented as a form of skill and four main types are described: formal, experimental, adventurous, and artistic.

Bassa, D.M., "A Case of Early Infantile Autism", in Indian Journal of Psychiatry, Vol. 4, No. 2, issue of April 1962, p. 71-76.

A case of early infantile autism coupled with organic defects in a child of European stock is reported. The writer

tries to explain the disorder as a defect in ego development due to lack of identification with a stable and accepting mother.

Bender, Lauretta, "Twenty Years of Clinical Research on Schizophrenic Children with Special Reference to Those Under Six Years of Age", in Gerald Caplan, (Ed.), Emotional Problems of Early Childhood, New York, Basic Books, 1955, p. 503-515.

The writer defines childhood schizophrenia as a maturational lag at the embryonic level and maintains that the basic characteristic of this disorder is embryonic plasticity which gives rise to anxiety. Environmental factors are only of secondary importance. She conceives of childhood schizophrenia as a precursor of adult schizophrenia.

Beres, David, "Ego Deviation and the Concept of Schizophrenia", in The Psychoanalytic Study of the Child, Vol. 11, 1956, p. 164-235.

A theoretical evaluation of the psychoanalytic concept of the ego in view of specific external manifestations and their relation to underlying psychic functions. The problems of development and regression are confronted on the basis of theory and presented case histories. Factors that determine arrest of development and their relation to normal development are discussed.

Bleuler, Eugen, "Autistic Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 399-437.

This article marks the introduction of the concept of autism into psychological literature. The writer introduces it as an important symptom of schizophrenia and defines it as a preponderance of inner life with an active turning-away from the external world. He discusses the different characteristics of autism and its meaning in pathology and in normal life.

-----, "Autistic-Undisciplined Thinking", in David Rapaport, (Ed.), Organization and Pathology of Thought, New York, Columbia University Press, 1951, p. 438-450.

In this article the writer discusses autism and its manifestation predominantly in normal thinking. He differentiates between scientific thinking, ordinary thinking and autism. He conceives of autistic thinking as a kind of thinking which disregards realistic logic and is after immediate wishfulfilment but, essentially, even this kind of thinking has its own laws.

Bowlby, John, Maternal Care and Mental Health, Geneva, World Health Organization, 1951, 194 p.

One of the first summaries of studies in maternal deprivation. Although some of the conclusions are hasty, the book is of value in introducing the reader into the major methodological and theoretical problems in the field of psychological deprivation in childhood.

Bowman, Claude C., "Normal Deviations from Reality", in American Journal of Psychiatry, Vol. 114, No. 5, issue of November 1957, p. 439-445.

The writer discusses the different definitions of the concept of reality as found in psychiatry.

Bruner, Jerome S., Jacqueline J. Goodnow, the Late George A. Austin, A Study of Thinking, New York, Wiley, 1956, xi-330 p.

A study in the nature of categorizing activity and concept attainment. The book represents an analytic description of the actual behavior that goes on when a person learns how to use defining cues as a basis for grouping the events of his environment. It summarizes a series of experiments in cognitive processes conceived of as the means whereby organisms achieve, retain, and transform information.

Bruner, Jerome S., et al., Contemporary Approaches to Cognition, Cambridge, Mass., Harvard University Press, 1957, vi-210 p.

A significant symposium volume written by a number of authorities in the field of cognitive theory. Cognition is discussed as distinct from perception in light of four major problems: trends of approach, the concept of representation, the relation of cognition to input and output, and the underlying structures of cognitive processes.

Cameron, Norman, "The Functional Psychoses", in J. McV. Hunt, (Ed.), Personality and the Behavior Disorders, Vol. 2, New York, Ronald, 1944, p. 261-291.

A summary and critical evaluation of many years of experimentation and theorizing in the field of psychoses. Although written twenty years ago it is still of value in that it can provide the reader with a general picture of achievements and failures in the study of psychoses from different points of view.

Chein, Isidore, "The Awareness of Self and the Structure of the Ego", in Psychological Review, Vol. 51, No. 5, issue of September 1944, p. 304-314.

The writer marks a sharp differentiation between the ego and the self. The self is conceived of as the content of awareness; it has no reality apart from awareness and it does not correspond closely to the real object of awareness. The ego, on the other hand, is a motivational-cognitive structure built up around the self.

"Childhood Schizophrenia. Round Table, 1953", in American Journal of Orthopsychiatry, Vol. 24, No. 3, issue of July 1954, p. 484-528.

A discussion of the study, recognition and treatment approaches of childhood schizophrenia by nine authorities in the field.

Despert, J. Louise, "Some Considerations Relating to the Genesis of Autistic Behavior in Children", in American Journal of Orthopsychiatry, Vol. 21, No. 2, issue of April 1951, p. 335-350.

This article represents a first attempt in psychological literature to discuss the genesis of autism. The writer relates it to faulty child-parent relationships in early childhood.

Despert, J. Louise and Albert C. Sherwin, "Further Examination of Diagnostic Criteria in Schizophrenic Illness and Psychoses of Infancy and Early Childhood", in American Journal of Psychiatry, Vol. 114, No. 9, issue of March 1958, p. 784-790.

The authors stress the point that autism does not refer to a simple withdrawal but constitutes a detachment from reality. They maintain that grouping together of diverse syndromes occurring in infancy on the basis of autistic features, when the concept is so widely misused, is inadequate and unjustified.

Erikson, Erik H., Childhood and Society, New York, Norton, 1950, 397 p.

A theory of personality development based on psychoanalytic genetic conceptions and evidence from anthropological studies. Development is viewed as a process of socialization through which immediate satisfaction is given up for future one and thus the individual gains also a psychological status in society as a life-space for gaining satisfaction and self-realization. Eight stages of development from infancy till late adulthood are discussed.

Eman, Aaron H., "Childhood Psychosis and 'Childhood Schizophrenia'", in American Journal of Orthopsychiatry, Vol. 30, No. 2, issue of April 1960, p. 391-398.

The writer postulates that the term childhood schizophrenia has served a useful purpose in delineating the syndromes of personality disturbances in children but, at present, it appears to lead more to confusion than to clarification. He calls for a replacement of the term by a broader concept of ego pathology.

Freud, Sigmund, An Outline of Psychoanalysis, New York, Norton, 1949, translated by James Strachey, 127 p.

One of the last, and left unfinished, works of the writer in which he brings together the vast aspects of psychoanalysis and presents them in a very concise form.

-----, The Interpretation of Dreams, New York, Basic Books, 1955, translated by James Strachey, xxii-692 p.

A comprehensive account of the interpretation of dreams out of which the writer later elaborated a theory of neurosis and personality development. Although since its first publication the writer introduced many changes, the book still represents the basic principles of psychoanalysis.

-----, "Formulations Regarding the Two Principles in Mental Functioning", in Sigmund Freud, Collected Papers, Vol. 4, New York, Basic Books, 1959, p. 13-21.

This article marks an important turn in the psychoanalytic conception of reality-relations. The ego conceived not only as a regulator and repressor of instinctual demands but also as a psychic organization with the purpose of adaptation to reality.

Goldfarb, William, Childhood Schizophrenia, Cambridge, Mass., Harvard University Press for the Commonwealth Fund, 1961, xxvi-216 p.

One of the best books on childhood schizophrenia. It gives a theoretical and methodological account of a study in childhood schizophrenia. The disorder is conceived primarily as a fragmentation of ego functions.

Goldstein, Kurt, "Abnormal Mental Conditions in Infancy", in Journal of Nervous and Mental Disease, Vol. 128, No. 6, issue of June 1959, p. 538-557.

In this article the writer presents a critical evaluation of early infantile autism and symbiotic psychosis. He relates both disorders to fixation at a primitive level of responsiveness rather than to autism.

Harms, Ernest, (Ed.), "Our Present Knowledge of Schizophrenia in Childhood", in The Nervous Child, Vol. 10, 1952, p. 7-178.

This is a symposium volume written by many investigators of childhood schizophrenia and represents the different approaches toward the understanding of the nature of the disorder.

Hartmann, Heinz, Ego Psychology and the Problem of Adaptation, New York, International Universities Press, 1958, xi-121 p.

A theoretical re-evaluation of the psychoanalytic concept of ego and of the process of adaptation. It represents a systematic attempt to establish within the framework of psychoanalytic ego psychology the groundwork for a theory of human behavior in general. The ego is conceived as a psychic organization not fully dependent upon instincts. The concept of conflict-free ego sphere is introduced and its implications for the development of perception, thought processes and normality are discussed.

-----, "Notes on the Reality Principle", in The Psychoanalytic Study of the Child, Vol. 11, 1956, p. 31-53.

The writer re-evaluates the concept of the reality principle in psychoanalytic theory. He differentiates between objective knowledge of reality, conventional or socialized knowledge of reality, and personal knowledge of reality. Only the last is of an autistic nature.

Hartmann, Heinz, Ernst Kris and Rudolph M. Loewenstein, "Comments on the Formation of Psychic Structure", in The Psychoanalytic Study of the Child, Vol. 2, 1946, p. 11-38.

In this article an attempt is made to clarify and to re-evaluate some genetic propositions of psychoanalysis with the aim to establish a link between the psychoanalytic reconstructive approach and the observational approach of developmental psychology.

Jackson, Don D., (Ed.), The Etiology of Schizophrenia, New York, Basic Books, 1960, 456 p.

A compilation of fourteen contributions toward the understanding of the nature of schizophrenia. The disorder, its etiology, symptoms, diagnosis, and treatment is discussed from the point of view of genetics, biochemistry, physiology, psychology, and family dynamics.

Kanner, Leo, "Autistic Disturbances of Affective Contact", in The Nervous Child, Vol. 1, 1942-43, p. 217-250.

The writer's first article on early infantile autism in which he presents eleven case histories. The basic characteristic of the disorder stressed by the writer is an inability to relate to people and situations from beginning of life.

-----, "Early Infantile Autism", in Journal of Pediatrics, Vol. 25, No. 3, issue of September 1944, p. 211-217.

The writer describes a group of children who were unable from the beginning of life to relate to people. These children failed to assume at any time the usual anticipatory posture preparatory to being picked up. The behavior of these children is governed by an obsessive desire for maintenance of sameness. The writer also reports obsessive-ness in the behavior of the parents.

Kanner, Leo and Leon Eisenberg, "Notes on the Follow-Up Studies of Autistic Children", in Paul H. Hoch and Joseph Zubin, (Eds.), Psychopathology of Childhood, New York, Grune and Stratton, 1955, p. 227-239.

The writers present results of a follow-up study on forty-two autistic children. The results indicate different prognoses for autistic children who speak and for those which are mute. Thus presence or absence of language function in preschool age becomes a criterion of the severity of the autistic process.

-----, "Early Infantile Autism; 1943-1955", in Psychiatric Research Reports, No. 7, April 1957, p. 55-65.

The writers bring an evaluation of twelve years of experience in the study of early infantile autism and discuss also the contributions of other investigators. They conceive of the disorder as a clinical syndrome of psychobiological nature and analyse its relation to childhood schizophrenia.

Klein, George S., "Cognitive Control and Motivation", in Gardner Lindzey, (Ed.), Assessment of Human Motives, New York, Rinehart, 1958, p. 87-118.

A summary of a series of experiments in the field of cognitive control structures, their role in behavior and their relation to drives. The concepts of idiosyncrasy and regression are discussed and re-evaluated in light of the new findings.

Lovatt, Margaret, "Autistic Children in a Day Nursery", in Children, Vol. 9, No. 2, May-June, 1968, p.103-108.

An account of therapy with autistic children in a nursery, and of difficulties encountered in trying to reach these children.

Mahler, Margaret S., "On Childhood Psychosis and Schizophrenia. Autistic and Symbiotic Infantile Psychosis", in The Psychoanalytic Study of the Child, Vol. 7, 1952, p. 286-305.

A differentiation between two syndromes in early childhood: symbiotic childhood psychosis and early infantile autism, is presented. Although the prognosis for both, according to the writer, is bleak, the differentiation throws light on the different etiological factors which bring about the disorders. A discussion of primary and secondary autism - one representing a fixation, the other a regression - expresses the writer's main thesis that autism manifests essentially behavior on a presymbiotic level of development.

Mahler, Margaret S., Manuel Furer and Calvin F. Settlege, "Severe Emotional Disturbances in Childhood: Psychosis", in Silvano Arieti, (Ed.), American Handbook of Psychiatry, Vol. 1, New York, Basic Books, 1959, p. 816-839.

A comprehensive description and critical evaluation of a heterogeneous group of syndromes in child psychosis. Particular attention is given to early infantile autism and symbiotic psychosis.

Masland, Richard L., Seymour E. Sarason, Thomas Gladwin, Mental Subnormality: Biological, Psychological, and Cultural Factors, New York, Basic Books, 1958, 442 p.

The writers bring, among others, a comparison between manifestations of autism in different clinical pictures. Protophrenia, Idiot Savant, and infantile autism are discussed.

Mead, George H., "The Social Self", in Journal of Philosophy, Psychology and Scientific Methods, Vol. 10, January-December 1913, p. 374-380.

Development of the self viewed as a process of development of the otherness in a person. Although written fifty years ago it gains importance in the light of recently aroused interest in the concept of self.

Mead, George H., "A Behavioristic Account of the Significant Symbol", in Journal of Philosophy, Vol. 19, January-December 1922, p. 157-163.

This article throws light on the development of subjectivity. The writer maintains that not the exclusion of an object from experience renders it subjective, but it becomes subjective by being referred by an individual to his self. This explanation is of importance in understanding the meaning of child behavior in general and of behavioral phenomena called autistic in particular.

Murphy, Gardner, Personality: A Biosocial Approach to Origins and Structure, New York, Harper & Brothers, 1947, xii-999 p.

A comprehensive study in personality development in terms of origins, modes of development and interrelations of structural problems. Contains the writer's basic exposition of his concept of autism as the movement of cognitive processes in the direction of need satisfaction.

O'Connor N., and Boate Hermelin, Speech and Thought in Severe Subnormality, New York, Macmillan, 1963, xi-122 p.

A very recent study in learning and thinking capacities in imbeciles. The evidence points to deficits in acquisition rather than to poor perception, retention or transfer ability. Of importance in that it throws some light on related phenomena in early infantile autism.

Phillips, E. Lakin, "Contributions to a Learning-Theory Account of Childhood Autism", in E. Philip Trapp and Philip Himmelstein, (Eds.), Readings on the Exceptional Child: Research and Theory, New York, Appleton-Century-Crofts, 1962, p. 602-609.

This article represents a summary of an experiment in autism viewed as an approach-avoidance conflict. The writer deduces from the results of the study that the autistic child is not deficient in sensation but, rather, is impervious to stimulation not fitting with his momentary assertions. He maintains that excess of motivation rather than deficiency of motivation accounts for autism in children.

Piaget, Jean, The Origins of Intelligence in Children, New York, Norton, 1963, 419 p.

This book presents the writer's theory of intelligence and his philosophical point of view with regard to cognitive development. It is an introductory book which deals with the sensory-motor stage of development in particular and with the explanation of the invariant element in cognitive development: assimilation and accommodation.

Piaget, Jean, The Language and Thought of the Child, New York, Meridian Books, 1955, 251 p.

Recognition given to the role played by social life in the formation of the individual mind. The basic thesis is that intelligence undergoes a gradual process of socialization and is enabled, through the bond established by language between thoughts and words, to make increasing use of concepts. The writer maintains that thought in the child is intermediate between autistic thinking and the logical thought processes of the adult.

-----, "Principal Factors Determining Intellectual Evaluation from Childhood to Adult Life", in Edward Douglas Adrian, et al., (Eds.), Factors Determining Human Behavior, Cambridge, Mass., Harvard University Press, 1937, p. 32-48.

The writer presents in a concise form his basic theory of intellectual evolution from sensorimotor intelligence through egocentric thought to rational coordination.

Potter, Howard W., "Schizophrenia in Children", in American Journal of Psychiatry, Vol. 12, No. 4, issue of May 1933, p. 1253-1270.

The writer limits the term schizophrenia to types manifesting diminution of interest in environment, disturbances of thought of deraiatic nature, and defect in emotional rapport. He reports six cases.

Rank, Beata, "Intensive Study and Treatment of Preschool Children Who Show Marked Personality Deviations, or 'Atypical Development', and Their Parents", in Gerald Caplan, (Ed.), Emotional Problems of Early Childhood, New York, Basic Books, 1955, p. 491-501.

The writer considers atypical development a more fit label than childhood schizophrenia. She conceives of the disorder as being a result of faulty parent-child relationships in the first two years of life. The core of the disturbance is a fragmented ego which manifests the child's lack of capacity for integration.

Rodrigue, Emilio, "The Analysis of a Three-Year-Old Mute Schizophrenic", in Melanie Klein, et al., (Eds.), New Directions in Psycho-Analysis, New York, Basic Books, 1957, p. 140-179.

The writer presents an account of successful treatment of a young child whom he considers to be suffering from early infantile autism. He explains the disorder as being a result of projecting the self into the external object, a kind of projective identification through negative hallucination of the environment. Although the terms are vague, the positive results after treatment which lasted only seven months, are of importance and speak for themselves.

Scheerer, Martin, "Cognitive Theory", in Gardner Lindzey, (Ed.), Handbook of Social Psychology, Vol. 1, Cambridge, Mass., Addison-Wesley, 1954, p. 91-142.

An excellent exposition of the problems, methodology and controversies in cognitive theory. The publication of this article marks the beginning of cognitive theory as an independent field of exploration in psychology.

Schilder, Paul, The Image and Appearance of the Human Body, New York, International Universities Press, 1950, 353 p.

The development of body-image is discussed from the physiological, sociological and psychological points of view. It represents a comprehensive study in the relation between development of orientation about the outer world and the orientation about our inner self.

Solley, Charles M., and Gardner Murphy, Development of the Perceptual World, New York, Basic Books, 1960, xiv-358 p.

A study in the nature of perception and the relationship between perception and learning. Contains a chapter on autism discussed in view of the experimental and clinical approaches toward the understanding of its nature.

Sullivan, Harry Stack, The Interpersonal Theory of Psychiatry, New York, Norton, 1953, xviii-393 p.

Posthumously published by the pupils of the writer, the book represents a systematic attempt to conceptualize the development of experience and its nature. Human development and behavior is viewed in concepts of interpersonal communication and the need for relief of anxiety. Three modes of experience: prototaxic, parataxic, and syntaxic, and their role in normal behavior and pathology are discussed.

Ferner, Heinz, Comparative Psychology of Mental Development, New York, International Universities Press, 1957, revised edition, xii-564 p.

Development viewed as a process of widening the gap and sharpening of the polarity between subject and the world. It represents an organismic approach in which the concept of development is not confined to maturation but rather viewed as an unbroken continuity. Child development and reality-relation are discussed in comparison to phenomena in primitives and in psychopathology.

APPENDIX 1

ABSTRACT OF

Autism: A Critical Inquiry into the Genesis of Autism

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Autism: A Critical Inquiry into the Genesis of Autism¹

In the last two decades autism became a very much quoted term in psychological literature. It is considered to be a normal transitory stage in early cognitive functioning, a psychopathological syndrome in early childhood, an important symptom in schizophrenia, and a phenomenon in normal thought processes. At present the term is employed so loosely that it lost its meaning within the precision of scientific expression.

In view of the above this study set out to examine through a critical inquiry into psychological sources the problem of the genesis of autism in order to make the meaning of the term unified and comprehensible. To reach the objective, the problem was investigated within two areas: the plausibility of autism in early cognitive functioning and the applicability of the term to early infantile autism.

The investigation involved four major steps. In the first chapter psychological sources on autism were reviewed with particular reference to the meaning and genesis of

¹ David Lissak, doctoral thesis presented to the School of Psychology and Education of the University of Ottawa, Ontario, August 1964, x-171 p.

autism. In the second chapter the plausibility of autism in early cognitive functioning was discussed in light of the scope of the cognitive theory in general, and in light of the development of cognition and the self in early childhood in particular. In chapter three a critical examination of early infantile autism was attempted. The syndrome was brought up in light of the conception of childhood schizophrenia, schizophrenia and autism, and its characteristics were discussed. In chapter four a theoretical elaboration of the genesis of autism was presented.

The results of the investigation indicate that autism is not possible in childhood - neither as a phenomenon in cognitive functioning, nor as a psychopathological symptom or syndrome - before the emergence of the awareness of the self as an entity apart from the surrounding world. In essence autism represents a withdrawal from the external world coupled with a preponderance of inner life. As such it cannot appear in childhood before an inner world develops to which the child can withdraw and achieve wishfulfilment. It was also suggested that early infantile autism represents rather two different syndromes of different etiology; to one belong the children who to some extent develop speech and their prognosis is favorable, to the other belong the mute children in which the disorder is irreversible - to both syndromes the term autism is not applicable.

Consequent to the results of the study, suggestions for further research might include the investigation of the microgenesis of magic thinking in the child as opposed to non-veridical cognitive functioning, as well as the investigation of the concept-meaning attainment and its relation to concept-sign usage. In the field of child psychopathology an investigation in the differential meaning of ego fragmentation and ego-self split for pathognomy was suggested.

CORRECTIONS

Page:-	Line:-	Should read:-
vi	4	(...), implies to be to some extent autistic.
x	7-8	Parts one and two of this chapter report on different theories related to the meaning and genesis of autism.
30	1-2	(...) in interpolation, that is, the use of clues to supplement evidence.
32	22	Although such data are of value (...)
57	15	(...) restrictive maturational regulatory principle.
69	13	(...) it is conceived of as a retreat to primary process, (...)
75	2	(...) his reactions to its stimuli, (...)
79	14-15	(...), and to substitute, through cognitive intervention, reactivity by activity.
81	13	(...) changes developmentally, as Kahn points out:
88	1	What then is the nature of childhood schizophrenia?
107	10	(...) presupposes functional intentionality
116	9	syndromes
128	13	'humanization'
136	18	In normal development (...)
137	15	Stereotypy
141	12	ontogenetically
142	14	identification
143	8	(...) is meant (...)