

## PROBLEMS OF NOSOLOGY AND PSYCHODYNAMICS OF EARLY INFANTILE AUTISM\*

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IN 1943, under the title *Autistic Disturbances of Affective Contact*, I published 11 cases of infantile psychosis noticed as early as in the first two years of life. Since then, I have seen more than 50 such children, and knowledge of many others has come to me from psychiatrists and pediatricians in this country and abroad. To satisfy the need for some terminological identification of the condition, I have come to refer to it as "early infantile autism."

Briefly, the characteristic features consist of a profound withdrawal from contact with people, an obsessive desire for the preservation of sameness, a skillful and even affectionate relation to objects, the retention of an intelligent and pensive physiognomy, and either mutism or the kind of language which does not seem intended to serve the purpose of interpersonal communication. An analysis of this language has revealed a peculiar reversal of pronouns, neologisms, metaphors, and apparently irrelevant utterances which become meaningful to the extent to which they can be traced to the patient's experiences and their emotional implications.

The syndrome of early infantile autism is by now reasonably well established and commonly accepted as a psychopathologic pattern. The symptom combination in most instances warrants an unequivocal diagnostic formulation. Once I became impressed by the syndrome, my first interests went in the direction of observation and description.

In the early days of scientific psychiatry, the singling out of a pathologic behavior syndrome was deemed fully sufficient. A certain type of symptom mosaic was lifted out of the diagnostic diffuseness and given a distinctive name, which was viewed as the designation of a disease entity. This happened, for instance, to Hecker's hebephrenia and Kahlbaum's catatonia.

Nowadays, the study of a psychotic pattern imposes two major obligations. Kraepelin introduced one of these by emphasizing similarities and dissimilarities of clinical pictures. He was able to find a common denominator for hebephrenia, catatonia, and other apparently heterogeneous phenomena.

Now that early infantile autism has a well-defined symptomatology and the syndrome as such can be recognized with relative ease, it is ready to apply for a place in the existing psychiatric nosology. In accepting this application, I am less interested in terminological allocation than in the in-

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trinsic nature of the condition as related or unrelated to the intrinsic nature of other conditions.

Recent experiences with Heller's disease have pointed out the importance of this necessity. Heller's disease, or dementia infantilis, was first described in 1908. A child develops normally for a period of about two years, then loses the ability to speak, has no interest in his toys, and deteriorates rapidly to the point of idiocy. It has been customary to assign to Heller's disease a place among the forms of childhood schizophrenia. Corberi in Italy did a biopsy of cortical tissue in two cases and found wide areas of ganglion cell degeneration and shrinkage of the cell processes. This was fully verified in two cases of my own observation. It is therefore appropriate to separate Heller's disease from the schizophrenias and to align it with the organic degenerative disorders akin to the Tay-Sachs disease group.

Early infantile autism bears no resemblance to Heller's disease or to any other organic condition. Heller's disease has a definite onset; the child impresses people as feeling and being sick. In fact, Zappert counted this initial malaise, or *Krankheitsgefühl*, among the essential features of Heller's disease; it was reported in the few cases which I had an opportunity to study and was one of the guides to diagnosis. Our autistic children did not go through such a prodromal stage. It is true that I have not considered a brain tissue biopsy in any of the autistic patients. Neither the clinical neurological findings nor the electroencephalograms nor the subsequent developments seemed to me to justify such a procedure. Even those patients who have withdrawn to the point of functional idiocy or imbecility show, especially in their behavior with puzzles and form boards, residual oases of planned mental activity which should deter one from thinking in terms of a degenerative organic process.

It has been suggested by some that early infantile autism is basically an aphasic phenomenon related to so-called congenital word deafness. This assumption can be understood in view of the mutism of many of the children and in view of all the patients' lack of response to verbal address. But here the resemblance stops. It can, of course, be imagined that aphasic children, cut off from linguistic contact with the environment, may find it difficult to connect in other respects as well. I have seen word-deaf children who were shy, apprehensive, lacking in spontaneity, pathetically bewildered, and insecure. But they all responded promptly to gestures, were keenly sensitive to physiognomies, and had a definite relation to their mothers, mostly one of clinging dependence. None showed the isolation, obsessiveness, and fragmentation of interests typical of early infantile autism. Certainly, there are enough autistic children who have amazingly large vocabularies; one patient who was brought to me from South Africa could speak English, French, and Afrikaans. Even some of the mute children have astounded their parents by

uttering well-formed sentences in emergency situations. One five-year-old boy, who had never been heard to pronounce one articulate word in his life, became distressed when the skin of a prune stuck to his palate. He exclaimed distinctly, "Take it out of there!" and then resumed his muteness. Another mute boy, four years old, was examined in a pediatrician's office and was annoyed by the physical contact. He cried out, "Want to go home!" About a year later, when left in a hospital because of bronchitis, he was heard saying, "Want to go back!" These—and other—examples are convincing proof that even the mute autistic children do not suffer from either sensory or motor aphasia. Those who eventually begin to talk give evidence that during the silent period they have accumulated a considerable store of readily available linguistic material.

The extreme emotional isolation from other people, which is the foremost characteristic of early infantile autism, bears so close a resemblance to schizophrenic withdrawal that the relationship between the two conditions deserves serious consideration. My first observations impressed me with the difference from the current experiences with, and concept of, childhood schizophrenia. The second of nine criteria presented by Bradley, as a result of his review of the literature, postulated: "His (the patient's) mental disorder must have appeared without known or obvious cause after a period in earlier life when he was comparatively free from mental disorder." This criterion does not apply to early infantile autism. The disturbance, though commonly misjudged at first, is apparent as early as in the second half-year of life. The infants seem unusually apathetic, do not react to the approach of people, fail to assume an anticipatory posture preparatory to being picked up and, when they are picked up, do not adjust their posture to the person who holds them. They shrink from anything that encroaches on their isolation: persons, noises, moving objects, and often even food. They seem happiest when left alone. Persistent lack of responsiveness raises doubts about the child's hearing acuity. When it becomes obvious that hearing as such is not impaired, poor test performances lead to the assumption of innate feeble-mindedness. This succession of a first diagnosis of deafness and a second diagnosis of mental deficiency is almost invariably a part of the case histories of autistic children. It indicates that a disturbance of relationships has been recognized by the parents from an early date. There is no period in the child's development in which there has been a comparatively normal adjustment.

In view of this beginning, the question arises: Must we assume that early infantile autism represents a syndrome which is not in any way related to the known psychopathologic patterns, or are we justified in correlating the essential features of the syndrome with the essential features of a condition which it most closely resembles, namely, schizophrenia?

After the publication of my first report, I received a very thoughtful letter from Dr. Louise Despert. I should like to quote from it. She wrote: "If, leaving aside the nature of etiology, we agree on the descriptive definition of schizophrenia as a withdrawal of affect from reality, then where are we going to draw the line? At adolescence? During pre-adolescent years? During childhood? In early childhood years? Obviously the symptoms which are an expression of the withdrawal of affect must vary according to the developmental level and the structure of personality at various age levels. It cannot be accidentally that the symptoms described by you have an almost word-for-word similarity with the symptoms which I, for instance, have described regarding the language-sign and language function, the fear of noise, the compulsive acts, the need for things to be the same, etc." In a later, equally thoughtful letter, Dr. Despert stated: "You certainly have clearly and concisely defined a clinical entity which had baffled many observers. It (the report) will do much to bring order and clarity in the confused mass of mental illnesses of the earliest years. Whether or not the similarities with the previously described schizophrenia in childhood should be later established, is an issue to be resolved after further study."

Further study has prompted the following considerations:

1. Early infantile autism is a well-defined syndrome which an experienced observer has little difficulty in recognizing in the course of the first two years of the life of the patient.

2. The basic nature of its manifestations is so intimately related to the basic nature of childhood schizophrenia as to be indistinguishable from it, especially from the cases with insidious onset discussed by Ssucharewa, Grebelskaya-Albatz, and Despert.

3. Nevertheless, one can hardly speak of an insidious onset of early infantile autism, except perhaps with reference to the first semester of life. By that time, or slightly later, the withdrawal, the detachment, the disability to relate to people are accomplished phenomena. There may be a slow onset of the ability to recognize the child's behavior for what it represents but the condition as such is unquestionably there.

4. Early infantile autism may therefore be looked upon as the earliest possible manifestation of childhood schizophrenia. As such, because of the age at the time of the withdrawal, it presents a clinical picture which has certain characteristics of its own, both at the start and in the course of later development. I have tried to do justice to this by including the discussion of early infantile autism in the schizophrenia chapter of the rewritten edition of my textbook of Child Psychiatry (published in 1948), at the same time acknowledging its special features by dealing with it under a special subheading.

5. I do not believe that there is any likelihood that early infantile autism

will at any future time have to be separated from the schizophrenias, as was the case with Heller's disease or with many instances of so-called dementia praecocissima of De Sanctis.

6. Nosologically, therefore, the great importance of the group which I have described as early infantile autism lies in the correction of the impression that a comparatively normal period of adjustment must precede the development of schizophrenia. Furthermore, this group shows that schizophrenic withdrawal can and does begin as early as in the diaper stage. It also confirms the observation, made of late by many authors, that childhood schizophrenia is not so rare as was believed as recently as twenty years ago.

These points should take care of the first of two postulates regarding a psychopathologic syndrome, to wit, its nosological allocation. The second postulate calls for etiological orientation.

Not one of the 55 patients studied has had in his infancy any disease or physical injury to which his behavior could be possibly ascribed by any stretch of the imagination. Only one began having convulsions at the age of four years and had a correspondingly abnormal electroencephalogram. All others remained physically healthy, except for mild colds, children's diseases, and minor ailments. There was nothing which could be interpreted as encephalitis or other cerebral illness. Endocrine functioning was unimpaired. There were no congenital abnormalities of the body. On the whole, the children were well formed, well developed, rather slender, and attractive. The absence of allergies, asthma, urticarial and eczematous skin eruptions may be incidental but is certainly worth mentioning.

It is customary to evaluate the hereditary element in the schizophrenias. Such an inquiry into the ancestral background of the autistic children is entirely fruitless if one limits the investigation to overtly psychotic or hospitalized relatives. It is indeed remarkable that, with the exception of the paternal aunt of one of the children, there is no history of psychosis, at least of committable mental disorder, in any of the antecedents. There is no instance of schizophrenia, manic-depressive psychosis, or even senile psychosis among the parents, grandparents, uncles, and aunts of the autistic children.

It is even more remarkable that almost all adult relatives have been rather successful in their chosen careers. The fathers are scientists, college professors, artists, clergymen, business executives; there are a few psychologists and psychiatrists among them. Many of the fathers, grandfathers, and uncles are listed in some of the *Who's Who* compilations or in *American Men of Science*. All but five of the mothers of the 55 children have attended college. All but one have been active vocationally before, and some also after, marriage as scientists, laboratory technicians, nurses, physicians, librarians, or artists. One mother who was not a college graduate was a busy and well-known theatrical agent in New York City. One, who has a Ph.D.

degree, collaborated in the publication of a Middle English dictionary. One stated: "I majored in zoology and could have majored in music. I play the organ, piano, and cello. I wanted to be a doctor but my family didn't have the stamina. I have often regretted it. I taught school for two years, then worked in an endocrinology laboratory."

My search for autistic children of unsophisticated parents has remained unsuccessful to date. This astounding fact has created a curiosity about the personalities of the parents, their attitudes and resulting behavior toward the patients, and the possible relationship between these factors and the presence and structure of the children's psychopathologic manifestations.

It is admittedly a hazardous undertaking to try to present a composite characterization of any group of individuals. There will always be variations and fluctuations within the group, and one person or another will stand out in sharp contrast to such an extent that the uniform application of any general statement will be jeopardized. This has always been the bane of many a statistical approach to the evaluation of personality traits.

Nevertheless, aside from the indisputably high level of intelligence, the vast majority of the parents of the autistic children have features in common which it would be impossible to disregard. The outstanding attributes may be summed up as follows:

One is struck again and again by what I should like to call a mechanization of human relationships. Most of the parents declare outright that they are not comfortable in the company of people; they prefer reading, writing, painting, making music, or just "thinking." Those who speak of themselves as sociable tend to qualify this by explaining that they have no use for ordinary chatter. They are, on the whole, polite and dignified people who are impressed by seriousness and disdainful of anything that smacks of frivolity.

They describe themselves and their marital partners as undemonstrative. This adjective and all that it implies is not offered apologetically by the parent as it refers to himself or herself, nor in any way critically as it refers to the spouse. Often parents of other children brought because of emotional problems complain with some bitterness about the husband's or wife's lack of outward show of affection. The parents of autistic children do not seem to mind. Matrimonial life is a rather cold and formal affair. There is no glamor of romance in premarital courtship, no impetuosity in postnuptial mating. On the other hand, there are no major animosities. There has been only one separation or divorce of any of the 55 couples. The parents treat each other with faultless respect, talk things over calmly and earnestly, and give to outsiders the impression of mutual loyalty. So far as can be ascertained, there are no extramarital sex relations. One father, ready after much persuasion to yield to the temptations of an amateur actress, suddenly found himself sexually impotent; he went home, told his wife about it, and it was

she who, without rancor, asked me for suggestions in a long-distance telephone call.

The parents' behavior toward the children must be seen to be fully appreciated. Maternal lack of genuine warmth is often conspicuous in the first visit to the clinic. As they come up the stairs, the child trails forlornly behind the mother, who does not bother to look back. The mother accepts the invitation to sit down in the waiting room, while the child sits, stands, or wanders about at a distance. Neither makes a move toward the other. Later, in the office, when the mother is asked under some pretext to take the child on her lap, she usually does so in a dutiful, stilted manner, holding the child upright and using her arms solely for the mechanical purpose of maintaining him in his position. I saw only one mother of an autistic child who proceeded to embrace him warmly and bring her face close to his. Some time ago, I went to see an autistic child, the son of a brilliant lawyer. I spent an evening with the family. Donald, the patient, sat down next to his mother on the sofa. She kept moving away from him as though she could not bear the physical proximity. When Donald moved along with her, she finally told him coldly to go and sit on a chair.

Many of the fathers hardly know their autistic children. They are outwardly friendly, admonish, teach, observe "objectively," but rarely step down from the pedestal of somber adulthood to indulge in childish play. One father, a busy and competent surgeon, had three children. The first, a girl, was docile, submissive, and gave no cause for concern to the parents. The second, a boy, was very insecure and stuttered badly. The third, George, was an extremely withdrawn, typically autistic child. The father, who once told me proudly that he never wasted his time talking to his patients' relatives, did not see anything wrong with George, who was merely "a little slow" and would "catch up" eventually. When nothing could shake this man's smiling impassiveness, I tried to arouse his anger by asking him if he would recognize any of his children if they passed him on a busy street. Far from being irked, he deliberated for a while and replied, just as impassively, that he was not sure that he would. This seemingly unemotional objectivity, applied to oneself and to others, is a frequent expression of the mechanization of human relationships.

The void created by the absence of wholehearted interest in people is occupied by a devotion to duty. Most of the fathers are, in a sense, bigamists. They are wedded to their jobs at least as much as they are married to their wives. The job, in fact, has priority. Many of the fathers remind one of the popular conception of the absent-minded professor who is so engrossed in lofty abstractions that little room is left for the trifling details of everyday living. Many of the fathers and most of the mothers are perfectionists. Obsessive adherence to set rules serves as a substitute for the enjoyment of life.

These people, who themselves had been reared sternly in emotional refrigerators, have found at an early age that they could gain approval only through unconditional surrender to standards of perfection. It is interesting that, despite their high intellectual level, not one of the parents has displayed any really creative abilities. They make good teachers in the sense that they can transmit that which they have learned. They are essentially conservative repeaters of that which they have been taught. This is not quite true of many of the grandfathers, some of whom have established flourishing businesses, expounded original theories, or produced fairly successful pieces of fiction and art. One grandfather, whose recently published autobiography tells of a life of uncanny versatility, was at various times a medical missionary, professor of tropical medicine, dean of a large medical school, curator of an art museum, manganese mining engineer, novelist, painter who exhibited in Paris, the representative of a sewing machine firm and, if this also is an achievement, pretty much of a Don Juan. One of his sons is a much-read novelist, another the author of adventure and horror stories, and a third a radio news commentator. His daughter is a singer. Our patient's father, who is the second of the five children, is a plant pathologist, a very conscientious and reliable scientist.

The obsessiveness of the parents of the autistic children was a veritable boon to me with regard to the case histories. Few children have ever been observed by their parents with such minute precision. Every smallest detail of the child's development, utterances, and activities had either been recorded in voluminous diaries or were remembered by heart. The parents recalled the exact number of words which the children knew at a certain time, the exact number of nursery rhymes the children could recite, the exact body weights at specified intervals. Even the surgeon who was not certain that he would recognize his children if he met them on the street knew promptly and correctly all about the patient's developmental data.

But the same obsessiveness was a major contribution to the impersonal, mechanized relation with the children. The parents, apparently unable to derive enjoyment from the children as they are, work for the attainment of goodness, obedience, quiet, good eating, earliest possible control of elimination, large vocabularies, memory feats. One father had the ambition to see his son walk alone at the age of three months; he held the baby up and moved his legs forward. Another procured Compton's *Encyclopedia* for his two-year-old son and noted with pride that, while the child was progressively withdrawing from contact with people, he could identify all the pictures by name.

The child is essentially the object of an interesting experiment and can be put aside when he is not needed for this purpose. While in most instances this is justified by the parent on the basis of some form of rationalization, one couple made this their conscious and deliberate endeavor. The father

was a business manager of whom his wife said: "He is the best-natured person you'll ever find; he is only interested in business." The mother was a graduate nurse. When they had two children, a boy and a girl, they felt that they had done their duty by society and posterity. An "accidental" third pregnancy came as a great inconvenience. The mother's fleeting thought of an induced abortion was counteracted by the firm determination to rear "a perfect baby." She decided that, to achieve this goal, she should leave Patricia alone and give her no more attention than was deemed necessary for obsessively regulated feeding and change of diapers. The baby seemed to reward her fully. She cried very little after the first few weeks of intensive yammering, gave no further trouble, took her bottle mechanically, and submitted passively to manipulation. She showed no anticipatory reaction to being picked up (something that happened very rarely). The first intimation that all was not well came to the parents when the child was 13 months old and they returned from a trip which had taken them away from home for several days. Patricia did not even look up when they came close to her and, when touched, seemed "stiff and indifferent." When seen at our clinic at 5½ years, she was extremely withdrawn, obsessive, had a phenomenal memory for names, was "marvelous with blocks," and could, as the mother reported, identify by name ten of the fifty victrola records which the parents had. They would turn on a record and the child would say: "Scheherazade—Rimsky-Korsakoff." She did not use speech for the purpose of communication. There was typical reversal of pronouns. The parents concluded reluctantly that their experiment had not worked.

It can be said only of several of the children that they were rejected in the sense in which this term is commonly understood. The majority of the children were not unwanted; the pregnancy as such was not unwelcome. Childbearing was an accepted part of the parents' conception of matrimony. No contraceptive precautions were taken, and there was not even a fleeting thought of abortion. The children were, as modern phraseology usually has it, "planned and wanted." Yet the parents did not seem to know what to do with the children when they had them. They lacked the warmth which the babies needed. The children did not seem to fit into their established scheme of living. The mothers felt duty-bound to carry out to the letter the rules and regulations which they were given by their obstetricians and pediatricians. They were anxious to do a good job, and this meant mechanized service of the kind which is rendered by an overconscientious gasoline station attendant.

One New England mother, a Methodist minister's only child, who had studied child psychology and majored in English and music, taught school before marriage but was unhappy because it was a progressive school and she was a strong believer in discipline. She shared with the late George Apley

an interest in "birds." She never held a bird in her hand. She "roamed around" and made notes, referring to her excursions as "observation trips," which she identified both by dates and ordinal numbers. She married a Harvard graduate chemist whose description of himself as an introvert was offered with a bland smile. They decided that it was the proper thing to have a child. Said the mother at the clinic: "I felt it was my duty to have a child, and we planned to have him. I am not very attached to children, it upsets me when he cries; maybe I should have a sympathetic nerve cut. I am more interested in my birds than I am in people." The arrival of the child reduced the number of her ornithologic excursions and because of this she "felt resentment" against him; though she added: "Of course, I am always glad to see him when I come back from my trips." She ministered painstakingly to the baby's material needs and took care of the rest by reading to him from books on bird lore. When he was seen at the clinic at slightly more than 2½ years of age, he was oblivious to people but performed skillfully with blocks, was amazingly adroit in spinning objects, was repetitious in his activities, and seemed happy and pensive when left alone but became very much upset when the slightest attempt was made to interfere with his privacy.

I have dwelt at some length on the personalities, attitudes, and behavior of the parents because they seem to throw considerable light on the dynamics of the children's psychopathologic condition. Most of the patients were exposed from the beginning to parental coldness, obsessiveness, and a mechanical type of attention to material needs only. They were the objects of observation and experiment conducted with an eye on fractional performance rather than with genuine warmth and enjoyment. They were kept neatly in refrigerators which did not defrost. Their withdrawal seems to be an act of turning away from such a situation to seek comfort in solitude.

I believe that the children's memory feats, their obsessive preoccupation with names, watches, maps, or calendar dates represent a plea for parental approval. The children, who have good cognitive endowment, find that their parents encourage such performances. How else would a three-year-old be able to name all the Presidents and Vice-Presidents, to recite 37 nursery rhymes (counted by the parents), or to rattle off 25 questions and answers of the Presbyterian catechism, at an age when these things have no semantic value to him? The obsessiveness at the same time seems to serve another function. While an obsessive adult tries to fight his ruminative needs out with himself, the autistic children, who otherwise have little dealing with the parents, force them with the tyranny of temper outbursts to participate in their sometimes very elaborate obsessive-compulsive schemes. This seems to me to serve as an opportunity—the only available opportunity—for retaliation.

I wish to repeat, in conclusion, that I have presented a composite picture,

got together from the case histories and observation of 55 autistic children and their parents. There were very few exceptions, but the existence of these exceptions is puzzling. One is also entitled to wonder why some of these parents have been able to rear other children who did not withdraw. Furthermore, I have seen parent couples who answered the above characterization to the fullest extent, yet whose offspring, far from withdrawing autistically, responded with restless aggressiveness. It is not easy to account for this difference of reaction. It is also very tempting to ponder about the psychodynamic relationship between early infantile autism, schizophrenia of later childhood, and the "hospitalism" studied by Goldfarb. Further, do not the personalities of the parents indicate that there are milder degrees of detachment and obsessiveness which enable a person to function and even gain a certain type of success in a nonpsychotic existence? These are highly important questions which await much further thought and study.

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