An Application of Structural Therapy to the Residential Treatment of Early Infantile Autism

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The purpose of this paper is to report on the development and application of a treatment approach to the syndrome of early infantile autism (EIA). This treatment approach is based upon many of the conceptions involved in DesLauriers'[1] structural therapy, but the author assumes sole responsibility for all modifications to this approach and for the etiological conceptualizations of early infantile autism.

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Structural Therapy: An Overview

Structural therapy is comprised of a collection of active, intrusive techniques which have been used at various times by many different therapeutic approaches. It was originated as a specific treatment approach by DesLauriers[1] and this term was used to describe his treatment of schizophrenic adolescents at Kansas State Hospital, in association with the Menninger Foundation.

This treatment approach is based upon **a** diagnostic conception of the schizophrenic child as having an inadequacy and incapacity in dealing with reality; and an incapacity in dealing with people. This inadequacy and incapacity is seen as being of a structural nature. That is, the schizophrenic child as seen as being deficient in the development of ego and superego processes to channel his *id* impulses.

DesLauriers[12] describes the schizophrenic child as having very few ego mechanisms available for the purpose of structuring or realizing his impulses, and as a result he is very unskilled and inefficient in gaining his desired ends. Thus, the schizophrenic child is described as an incompetent, incomplete human being, who has

only fragmented bits of behavior available to him. This behavior is not well integrated and results in what is labelled clinically as "bizarre" and "inappropriate" behavior.

Structural therapy draws its name from both the view of the schizophrenic child as having a structural deficit in ego development, as well as the therapeutic focus of an attempt to stimulate the development of these deficient ego processes.

DesLauriers[1] suggests that this deficiency of ego processes in schizophrenic children is due to their poor awareness of their body image and their lack of differentiation of themselves from the surrounding environment. These children are described as being very "fluid," and as having a very poor body image. Examples of this fluidity of ego boundaries are often seen during diagnostic evaluations. If such a child is asked to draw something, he will often not only draw on the paper, but on the table, himself and sometimes even on the examiner.

DesLauriers[1] indicated that the level of ego development of the schizophrenic child rendered inappropriate any attempts of a therapist to deal with him on solely an interpretive and/or verbal interactional level. It was suggested that these more sophisticated levels of ego functioning be largely ignored, in favor of a focus upon an earlier level of development which has been labelled variously as "body ego" (Freud[3]), "corporal feeling" (Federn[4]) and "body schemata" (Schilder[5]). These and other descriptions of this level of development define it as the first experience of the ego. This first experience of reality arises from an establishment of the actuality of body limits and boundaries. Body ego is what people mean when they refer to the child's or adult's awareness of his own body limits, of its capabilities and of how it functions in relation to the world around him.

Since the schizophrenic child's deficiency has been described as a deficiency in body ego, the structural therapist attempts to promote its development. These therapeutic efforts all emphasize the provision of an increased level of stimulation to the body of the patient. The therapist uses both verbal and physical stratagems to help the patient cathect his bodily limits. These stratagems include talking to the patient about himself—the color of his hair; his eyes; the attractiveness of his physical person; the number of hands, fingers, arms and legs. Also included are such stratagems as tickling of sensitive areas, soothing, stroking, hugging or swinging the child to give him a motoric kinesthetic experience of his whole body. Anything which the therapist can think of in a spontaneous, creative, game-like atmosphere which will aid the child in completing the differentiation of himself from the environment as a distinct and separate human being, is something which would fall under the rubric of the treatment approach labelled as structural therapy. Thus, the schizophrenic child is urged and encouraged to become more spontaneous, focus more upon his body boundaries rather than internal fantasies, and tie together the fragmented bits of body ego and higher ego processes which are available to him.

Structural therapy has shown some limited effectiveness, on a research basis, with verbal schizophrenic adolescents (DesLauriers[1,2]). However, there is no available report of the effectiveness of this treatment approach with latency age or pre-school children who have been diagnosed as being either cases of childhood schizophrenia or early infantile autism.

Early Infantile Autism

Numerous etiologic concepts have been put forth for the syndrome of early infantile autism. Thus, early infantile autism has been labelled as a "total psychobiologi-cal disorder" stemming from an "emotional deprivation" due to the "refrigeration" of the parents (Kanner[6,7]), a "reaction to an

overwhelming inner or outer assault at a vulnerable developmental stage" (Garcia and Sarvis[8]), "the smothering, symbiotic attitude of the mother" (Green and Schnec-ter[9]), "emotional isolation" (Lewis and Van Ferney[10]), and various malfunctions of the perceptual apparatus which may include psychogenic factors (Polan and Spencer[11]), minimal brain damage and lack of adequate definition of limits (Loomis[12]), and an "unknown basic disease" which is manifested by a breakdown of homeostatic regulation of sensory input (Ornitz and Rit-vo[13]).

The child who is diagnosed as a case of early infantile autism *is* usually described as having manifested "autistic aloneness" or "lack of object relations" since birth (Kanner[6]), showing an "obsessive desire to maintain sameness" via stereotypic behavior, a failure to use speech for communication and displaying no neurologic dysfunction. These are the four diagnostic criteria used in this research project.

Numerous anecdotal and clinical reports indicate that the classically autistic child described by Kanner has no interest in or awareness of his physical body. Instead, the classically autistic child appears to be fixated upon one narrow area of functioning that is used to maintain sameness in the environment. Thus, the child may echolalically repeat snatches of long-past conversations, assemble or disassemble mechanical toys, go through a complex ritual of self-mutilation, perform extended feats of memory, etc. Thus, it appears that the children who fall within the syndrome of early infantile autism are completely lacking in the development of any body ego.

A. Behavioral Ego

The lack of body ego in early infantile autism appears to have allowed for a deviant type of ego development. The classically autistic child always manifests one area of skill which he uses to maintain sameness. Interruption of the pattern of this stereotypic behavior usually results in either a rage or withdrawal reaction that lasts until the stereotypic behavior is allowed to resume. Thus, it *is* obvious that the autistic child is much more concerned and involved with what happens to his pattern of stereotypic behavior than what happens to his body. Thus, a pattern of behavior has been cathected rather than a part of the body, the whole body or outer reality. I have postulated that this cathexis of a pattern of repetitive, stereotypic behavior should be labelled as a behavioral ego level of development.

The behavioral ego would be defined by the repetitive occurrence of a complex set of stereotypic behaviors which appear to exist to the exclusion of body ego or any higher ego processes. The classically autistic child appears to be fixated at a behavioral ego level of development, and to use this level of functioning to avoid the acknowledgement of outer reality. It seems as if some event or circumstance has caused the autistic child to cease developing, after having experienced only a very little of the world around him.

It is hypothesized that through the functioning of the behavioral ego, the autistic child carries on the same activities of exploration, stimulation and relaxation that occur in the infinitely larger areas of experience available to the healthier child. These behaviors are labelled as a specific type of ego development because they appear to be the means by which the child achieves his desires and experiences, and attains a limited amount of stimulation. The autistic child guards these behaviors with the same care that the more psychologically developed child guards his body. Interruption of these behavior sequences is responded to with a great deal of negative and fearful affect, whereas physical injury often elicits no observable affective response and many times appears to be completely ignored.

The behavioral ego is representative of the first possible successful unified adaptive position, whereas the schizophrenic child has no single adaptive position and usually displays a number of fragmented adaptive positions. The autistic child has been quite successful in controlling his parents, attaining his desires without learning to speak, and the sole source of novelty and variation in his restricted environment. He has succeeded in restricting reality to dimensions which he can comfortably handle.

B. Importance of Stimulation

Examination of the question of the etiology of early infantile autism suggests that these children have suffered from a deficit of novelty, of variation and of patterned stimulation in the environment in their early developmental history. Numerous studies (Provence and Lipton[14]; Hess[15]; Fantz[16]; Levine[17]; Spitz[18]; etc.) attest to the importance of varying stimulation in the early development of the infant. Varying etiological concepts (Kanner[16]; Ornitz and Rit-vo[13]) all deal with the level of stimulation received by the child, while a large body of research literature (Solomon, et al.[19]) attests to the negative effect of sensory deprivation upon the functioning of normal adults.

A great amount of current research indicates the need of the human organism for a structured environment which allows for the occurrence of novel and varied situations. A recent study (Stechler and Latz[20]) has revealed that young infants will spend up to 15 minutes simply staring at one part of the environment. Other studies (Roff-warg, et al.[21]) indicate that there is an extremely high level (approx. 75-80%) of rapid eye movement (REM) activity in the young infant. Rapid eye movement activity is felt to be related to organizing activity within the brain. In short, the above and many other studies support the view of the infant as a strongly motivated processing instrument, rather than as a passive recipient of external stimulation. The infant is working very hard to learn how to make some sense out of the "buzzing, booming confusion" (James[22]) of the world around him.

The mothering figure has an important role to play in helping the infant to organize the world. She serves as a filter for many of the stimuli impinging upon the child, and gives him time to both organize those stimuli which do get through to him, as well as to use her own behavior as a model. Thus, the mothering figure protects from stimulation, organizes stimulation, provides stimulation and serves as a model for the organization of new and varied stimuli. If the mothering figure does not fulfill these requirements of the child, it is not unexpected that the infant would be content with any behavior which does fulfill the above requirements, even though this behavior might not be very inclusive. Thus, the fulfillment of the above requirements, in a very narrow and limited sense, seems to be the function of the stereotypic behavior of the autistic child, which has been labelled as a behavioral ego.

C. Etiology

There appear to be three basic sources of an early developmental history of a lack of the experience of a varied and stimulating patterned environment. This refers to the question of whether or not the infant was born into a household that set limits in a regular fashion, while encouraging responsiveness and exploration. The first source of such a history appears to lie in the birth of a child with an abnormally high stimulus barrier due to some organic problem, such as a visual or auditory deficit, or a child who is developmentally retarded. These and many other similar kinds of problems would render the child unaware of many stimuli in his environment, and result in his being thrown largely upon

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his own scanty resources. This situation can result in many odd and limited behaviors (Burlingham[23]). Secondly, the child may be hypersensitive to external stimuli due to some organic problem (Bergman and Esca-lona[24]) and attempt to withdraw from the painful impingement of external stimuli upon his faulty stimulus barrier. This situation can result in a withdrawal from the world which again leaves the child dependent upon his own scanty resources. Finally, the home environment may be so non-nurtur-ent, unstimulating and unpatterned that the child has no recourse but to develop whatever patterns of behavior he can organize by himself. This last category appears to contain those children for whom Kanner originally labelled the syndrome of early infantile autism. The lack of stimulation may result from either the physical or psychological absence of the mother figure. The latter situation may be caused by an extended post-partum depression or psychosis, uncertainty and fearfulness as to what to do with an infant, or a rigidity of personality that does not allow the regression to take place which is necessary to be warm, spontaneous and open with an infant.

A recent study (Rothstein[25]) provides some support for the above position. This report was entitled "Stimulational and Interaction Patterns of Autistic Children and Their Parents." These parents were compared to the parents of normal children and the parents of brain damaged children, in regards to their spontaneity, their use of physical stimulation and their sensitivity to the non-verbal cues which were emitted by their children. The parents of schizophrenic and autistic children were found to rate significantly lower than the parents of the other two groups, on all of these criteria.

The above study, studies by Kanner,[67,26] many other studies and our own experience with parents of the children in this research project, all support the contention that these are people who are lacking in the capacity to provide a large amount of novel and variegated stimulation to their children. Our contact with the parents of autistic children have disclosed the presence of a great deal of emotional distance, anger and rigidity. These parents are not sensitive to the feelings of their children, and in addition, they seem to be unable to express their own feelings to their children.

Modifications: Structural Therapy

Structural therapy was a treatment approach designed to stimulate positive change in verbal, adolescent schizophrenic patients by means of a concentration upon the improvement of fragmented body ego and body image. The focus of this therapeutic activity was to use the intrusive pleasant activity of the therapist to stimulate the further development of body ego and higher ego processes. Thus, efforts were made to gratify any desire which the patient could be encouraged to express.

Examination of the diagnostic picture presented by the syndrome of early infantile autism suggested the need for theoretical and strategic modifications of structural therapy. Whereas the presence of fragmentary body ego made it possible for the therapist to gain direct contact rather easily with the adolescent schizophrenic, the autistic child has no body ego. Thus, the therapist must attempt to gain contact with

the patient on a much earlier developmental level than that described by DesLau-riers.[1,2] The lack of object relations and lack of the use of speech for communication rank the autistic child on the level of functioning of an infant below the age of six months. The maintenance of sameness via stereotypic behavior appears to have its roots in what Piaget[27] has described as the stages of rhythm and regulation. These two stages are described as occurring within the first weeks of life. Therefore, except for that hypertrophic ego development which I have labelled as a behavioral ego level of development, the therapist is faced with a child who is completely out of touch with reality.

Since the outstanding developmental and adaptive feature of the classically autistic child appears to be the maintenance of sameness via stereotypic behavior (Kan-ner[26]; Ward and Handford[29]), it seemed that the therapist must concentrate his efforts upon the behavioral ego of the patient. However, whereas DesLauriers[1,2] urged a development of the body ego for the adolescent schizophrenic, it would seem that the therapist would only use the behavioral ego as a means of affectively contacting this otherwise completely isolated child. This affective contact may usually be made by actively and physically intruding into whatever the stereotypic activity of the child may be. The therapist attempts to interrupt the stereotypic behavior in as pleasant and gamelike fashion as possible, but must insist on the interruption to the point that the child acknowledges his presence.

A. Treatment

Therapists have been trained in structural therapy with the following set of guidelines:

1. The therapist is trained to identify the stereotypic behavior of the child and to interrupt it. This interruption is done in a graduated and game-like way, if possible. The ineffectiveness and maladaptiveness of the stereotypic behavior for dealing with people, is demonstrated to the child by interference and by physical and verbal setting of limits to the rage or avoidance reactions which often follow the interference.

2. The anxiety and anger created by the interruption of the stereotypic behavior is used to focus the attention of the child upon part of the therapist as a meaningful part-object or object. Analytically oriented interpretations accompany the use of structural therapy. The therapist attempts to interpret the child's feeling about being interrupted, and then tries to get him to emit any verbal or physical message which is directed toward the therapist. This physical, visual or verbal message is then used to focus the attention of the child upon physical likenesses and differences between himself and the therapist. This stage often needs to be preceded by a period during which the therapist presents an alternative rhythmic behavior for the child to focus upon.

3. Development of a recognition relationship with the child is followed by presentation of a number of novel and patterned activities which draw the child's attention to his own body. These activities include counting of fingers and toes, gross movements of arms and legs, physical stimulation of body, etc.

4. The development of body ego is stimulated by the use of physical, gamelike interactions that make the child more aware of his own body, and of his differences from and similarities to his therapist.

5. As behavioral ego functioning decreases and body ego becomes more predominant, more conventional play therapy techniques are included in the treatment.

Elaboration Upon Guidelines

All the above phases of treatment deal with a gradual increase in the level of physical, verbal, olfactory, kinesthetic and affective stimulation which is given the child. This increase in stimulation must be carefully modulated to avoid "overloading" the child. The non-verbal child signals his distress at being overloaded in an unmistakable manner which is easily distinguished from the diffuse, tantrum-like rage that results from the interruption of the stereotypic behavior. In addition, it should be stated that all patients are expected to show regressions in development along the major points outlined above, due to internal or external stresses.

The first task of the structural therapist is to break down the functioning of the behavioral ego and attempt to eventually promote the development of a cathexis of a significant person as a representative of reality. This development will then be followed by efforts directed toward the stimulation of body ego. Until there is some initial development of body ego, the therapist and reality have no grasp upon the child. The child is self-sufficient and unreachable until his body becomes important to him. The development of a fragmentary body ego eventually allows the therapist to shift to more conventional play therapy techniques. Thus, structural therapy may be viewed in terms of a therapy which prepares autistic children to benefit from more conventional types of psychotherapy.

The structural therapist uses techniques which are very common to the behavior of the apocryphal "good mother" playing with the normal infant. He stimulates the body boundaries via simple physical body differentiation games, teaches him how to behave, sings to him, shows him pictures and in general tries to give him many new and interesting experiences of reality. The classically autistic child is seen as being woefully deficient in varied experiences of the world, and the structural therapist is attempting to give the child enough new experiences so that he will learn that he is a human being and that reality is interesting. The child must then gain enough new experiences to be able to form schemata (Piaget[28]) which he can then use to organize reality for himself. Prior to the attainment of that level of development, the therapist provides new experiences and models free, spontaneous responses to the environment. At the same time, the therapist provides a firm structure as to acceptable behavior that the child is able to fight against, simply to assure himself that it is indeed present and reliable, even under stress. Eventually the child internalizes this structure of control.

Observations

Observation and treatment of the syndrome of early infantile autism have shown that these children seem to progress at a relatively rapid rate, if they can ever be engaged in therapy. Thus, some autistic children have been observed to make a significant response to the intrusive approach of structural therapy after as short a period as six weeks of treatment. Clinical experience has indicated that this amount of treatment is rarely sufficient to stimulate observable changes in schizophrenic or other severely ego disturbed children. This relatively rapid rate of progress, coupled with the mediating capacity reflected in the child's success in the development of the behavioral ego, leads to the conceptualization of the autistic child as actually being more advanced in ego development than the schizophrenic child.

It seems as if the autistic child has taken a wrong fork along the road to normal development, and that this fork has culminated in the dead end of the behavioral ego. The behavioral ego is labelled as a dead end because it does not help the child in learning how to process new experiences in the environment, even though it does consist of a set of stereotypic behaviors which have an active effect upon the outside world. Thus, the behavioral ego simply allows the autistic child to repeatedly impose the same pattern upon the outside world, rather than helping him to assimilate new experiences into an organized view of the world.

However, the autistic child does have the advantage over the schizophrenic child of having had the experience of developing one unified adaptive way of handling the environment. Thus, when a therapist is successful in routing the autistic child from the repetitive patterns produced by the behavioral ego, the child does have the benefit of this previous successful adaptive experience when he is asked to deal with the larger world around him. Essentially, it appears that the difference in therapeutic responsiveness between early infantile autism and childhood schizophrenia is based upon the difference between problems rooted in regression and those which are problems of fixation. The structural therapist must forcefully produce a regression from a behavioral ego level of development to a body ego level of development, and then take advantage of the coping capacity developed in the formation of the behavioral ego to help reroute the child into the mainstream of the normal developmental pathways.

The structural therapist must focus upon the development of the autistic child's awareness of him as a distinct and separate human being. This emphasis must be repeated over and over again to get the child to view the therapist as a three-dimensional human being; otherwise the child may never develop beyond the point of viewing the therapist as a gratifying, playful, enjoyable object whose only role is to supply his oral demands. Many times the therapist will deliberately oppose some of the new desires expressed by the patient.

This is directly the opposite of Des-Laurier's strategy with adolescent schizophrenic patients, and is done to emphasize the differences in feeling between people, and how they can be dealt with directly and freely. Many times the child may enjoy some activity, while the therapist may be exhausted or bored with lifting him, swinging him, playing body differentiation games, etc. At that point, the therapist should say, "I'm tired—I'm bored—Let's do something else"—or "I don't like this." The therapist should feel free to initiate periods of rest or movement out of the therapy room. It is extremely important that the therapist share his feelings with the patient, as these children have usually had very little experience of truthful and direct expression of feeling. Thus, it is clear that the use of counter-transference feelings plays a large role in this modified version of structural therapy.

The therapist is encouraged to introduce activities and experiences which the child has not thought of, to the end of (1) being genuine and spontaneous; (2) varying the range of stimuli to which the patient is exposed; and (3) emphasizing that his feelings and ideas are not always the same as those of the patient. Thus, the therapist discourages the development of a pathological symbiotic relationship of grandiose omnipotent fantasies. The development of a "normal" symbiotic relationship is expected and hoped for, as an indication of positive growth on the part of the patient.

B. Results

The above treatment approach has been applied to the organization and functioning of a 20-bed Autistic Children's Unit devoted to research on the etiology and treatment

of early infantile autism. This research project has been ongoing since October, 1966. A total of 12 autistic and schizophrenic children, ranging in age from 6-1 to 12-0, have been seen in structural therapy, on a twice a week basis, for periods ranging from two years and one month to one year and one month. Individual therapists, nursing personnel and child care staff have all been trained in the aims of structural therapy. Thus, even those children who are not seen individually, are exposed to the milieu generated by structural therapy.

At the initiation of the research project, 13 of 21 children were on medication which included Mellaril,® Thorazine® and Librium® and ranged from dosages of 10 mgm. t.i.d. to 150 mgm. t.i.d. At the present time, only 2 of 17 children receive any tranquilizing medication. Four children have been discharged in the last two years, and other children have shown marked changes. All of the children have made improvements in the development of object relations, attention span and performance in kindergarten types of classroom tasks.

Several non-verbal children have started babbling in a manner similar to that of normal infants and have been started in speech therapy. Four of these children have developed the use of words for communication.

Further analysis of both the process and outcome of this modification of structural therapy is ongoing and will be available at a later date.

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