THE PSEUDO-MENTAL-DEFICIENCY SYNDROME

By

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CLINICAL conditions simulating various degrees of intellectual handicap have been described quite frequently in the past. Individuals with such a deficiency have been observed in increasing numbers by psychiatrists, pediatricians, psychologists and social workers in schools for the mentally defective as well as in psychiatric hospitals and mental hygiene clinics.

The syndrome of pseudo-mental deficiency has been investigated by improved methods of psychological examination and by the increased skill and experience of psychiatrists and allied professional personnel. Pseudo-mental deficiency as used in psychological literature during the past fifteen to twenty years is almost as diffuse and broad a term as the designation of mental defect itself. Wide and extensive knowledge is therefore needed in the field of psychological medicine and pediatrics if the two clinical groups of mental deficiency, pathological and the functional, are to be held apart correctly and differentiated clinically. Any considerable delay in the prompt recognition and diagnosis of the underlying causes of these two states of intellectual insufficiency may adversely affect any subsequent counselling and rehabilitative efforts of either of these two clinical groups. The pseudo-defectives if left untrained and untreated too long, would no longer be capable of catching up with their fellows. The true mental defectives, on the other hand, would gradually become more difficult to train, and would eventually develop into problem persons or drift into anti-social patterns of behaviour.

The factors most commonly responsible for the incidence of pseudo-mental deficiency can be attributed to causes inducing a delay in physical, mental and affective maturation, defects or embryological anomalies in specific sense organs, emotional and environmental deprivations, psychoneurotic and psychotic states based on functional or organic pathology. Conditions predisposing to pseudo-retardation and chronological lag in mental and educational growth are of considerable aetiological importance and will be discussed accordingly.

There appear to be a considerable number of variations in time at which educationally normal children reach a maximal phase at which they are capable of functioning adequately to a standard curriculum of education. Other agencies such as interpersonal relationship, level of socio-economic standing, attention span and physical well-being, may to a certain extent determine the scholastic readiness of the pupil. Should any of these handicaps constitute a serious drawback in the make-up of such a child, he would certainly find it increasingly difficult to profit from a stereotyped, rigidly applied school programme. As a consequence, one would not be justified in attributing a child's slow educational progress or faulty social adjustment primarily to a basic insufficiency of innate mental endowment.

The spastic child as an example belongs in this category. On an average

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he develops remarkably slowly, but often continues to grow intellectually beyond the expected level of mental maturation of a defective child who has no orthopaedic handicap. As a matter of fact, not infrequently his mental growth keeps developing throughout adolescence, often surpassing the average level of maturational increase of normal children.

There are also a number of other physical and mental disorders which may lead to a delay of intellectual development. The clinical conditions referred to comprise certain forms of tuberculosis, the early infantile forms of aberration, some types of infantilism, improper nutritional and vitamin deficiencies and other morbid states such as rickets, chronic infantile intestinal diseases and diverse serious chronic bodily ailments.

A lack of sensory acuity in one or more of the specific sense receptive organs often conveys the false impression of such persons being dull or mentally retarded. They may not be able to see or hear as well as their classmates which in turn may tempt the teacher to regard them as being backward or even defective in their average mental endowment. The verbal responses are often quite inadequate, grossly diminished or even absent; and yet their poor scholastic achievements are not entirely attributable to an inborn lack of intelligence but, in fact, to an impaired functioning of one or more of their specific sensory organs. Inaptitude in reading, writing or numerical problems also occur as a result of these sensory handicaps. Cases of visual aphasia represent one of the most serious examples of non-readers; the milder aphasias, however, usually yield to appropriate remedial instruction. There are other physical causes, of course, that may mask or distort a child's native capacity wholly or in part. Impairment in hearing leading to deafness, motor aphasia, paralysis of the speech muscles or the inability to speak following social and cultural isolation in early childhood may considerably contribute to a condition resembling that of true mental deficiency. Moreover, there are children with ocular manifestations leading to varying degrees of visual impairment such as congenital cataract, gross errors of refraction and specific eye diseases. Retrolental fibroplasia, for instance, is one which is apt to develop in prematurely born babies who are exposed to excessive amounts of oxygen for an undue length of time, finally ending in blindness. This condition, of course, is preventable in many instances and is not attributable to genetic factors as originally thought. There are, however, some hereditary familial conditions associated with mental retardation which are complicated by morbid disorders such as optic atrophy, and retinal and other degenerative processes.

If sensorily handicapped individuals are neglected for a prolonged period of time, particularly during their most receptive, formative years of pre-adolescence, permanent signs of a functional mental deficit may ensue. The educational programmes in residential schools for the blind and deaf have demonstrated that the majority of such children, if given specific aids and suitable training, possess an inborn potential which assists them to develop quite adequately, often reaching satisfactory levels of educational and social achievement. In rare instances they may even reach the brilliancy of Helen Keller, Kaspar Hauser or Laura Bridgman.

Another factor in the causation of pseudo retardation is the influence of the cultural environment on the intellect.

A total lack of external stimulating conditions aggravated by a complete absence of human and educational influences, predisposes some individuals to intellectual stagnation of varying degrees, a coarseness of behaviour and even

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adoption of animal mannerisms. The physical and cultural isolation of human beings has occurred accidentally from time to time, and persons found under such circumstances have been referred to as "wild" or as being mentally backward. Owing to a lack of adequate intellectual stimulation, the higher thought processes have never had any opportunity or outlet of unfolding and thus their potentialities remained latent or undeveloped.

Such social isolation occurring during the first five years of life or so is held by many authorities to be the responsible cause of inability to learn to speak, or of poor speech habits. The child's mind at that age is most impressionable and plastic regarding its developments of thought associations and verbal expressions. Any neglect of cultural and training contacts during the pre-school period tends to imperil the child's chances to develop higher mental processes, to cerebrate on abstract matter and to conduct himself like a normally developed well-balanced person.

There is a school of psychologists who, having evolved a rather rigid concept, attribute supreme importance to the stimulating effects of cultural and social contacts upon the child's intellectual growth in subsequent years. This environmentalist school is of the opinion "that there is no escape from the fact that the intelligence quotients of children possess possibilities over a large area of the I.Q. range from genius to feeble-mindedness. Children can and do change in test I.Q. from average to genius and from average to feeblemindedness if they are under the continued influence of a stimulating environment or not".

According to this isolationist concept, true mental retardation results from any form of isolation if the latter cuts the person off in early childhood from any form of social, cultural or educational influences for a considerable period of time.

It is true that environmental factors do play an important role in the attainment of tested intelligence. This point has been particularly well brought out by the work of Goldfarb in 1940. In this he compared two classes of children; those who had spent the first few years of their lives in orphanages and those coming from a similar socio-economic background but who were brought up in foster homes. In later years the orphanage group that had excellent material care but little individual attention and who were emotionally starved, achieved an average I.Q. of 69, while the foster home children who had the opportunity of understanding, care and sympathetic interrelationship to individuals even in poorer economic circumstances, achieved an average I.Q. of 96. Therefore, it would appear that educational deprivation in early childhood does not affect children intellectually as seriously as deprivation of love and affection. It is the latter which apparently leads to a masked form of mental deficiency which in some cases remains irreparable and irreversible. No institution for the educationally retarded can ever hope to replace the warmth, friendliness and individual kindness of a motherly person even if she were poor or illiterate or both.

The consequences of maternal deprivation after the age of six months become progressively more serious and finally unalterable in some instances. As Spitz has noted, at two months the infant can recognize the mother's image and between the age of six to eight months he can distinguish the mother from strangers. If the separation of the maternal figure occurs under three months, the developmental quotient (D.Q.) would gain on the average 25 points after reunion with her; if the separation be somewhat longer, it would raise the D.Q. by some 13 points after reunion, and if the separation be still longer, rather

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less points on her return. Should the emotional isolation exceed five months, the regression would continue still further and become a progressively irreversible process.

A more serious finding, however, points to these children's inability or poor response to simple motor and verbal skills such as walking, running, and talking. Of twenty-one institutionalized children aged four years, Spitz noted that five could not walk at all; sixteen walked by holding onto furniture; twelve could not eat alone with a spoon; twenty could not dress themselves, only one could; six were not toilet trained at all, six children were unable to talk, five had a vocabulary of two words, one of a dozen words and only one actually spoke short sentences. All this tends to show and emphasize the fact that these children functioned for all practical purposes on a pseudoretarded level. The only child who was able to speak, walk, dress himself, eat alone and who was toilet trained, was a little boy of great beauty. He just looked like an angel and no person entering the nursery of the foundling home failed to stop at the child's bed and talk and play with him. This little boy obtained more attention, love, care and personal supervision by the nurses, doctors, and visitors than all the other infants put together. The remaining babies were reared by a nurse who did not have sufficient time to do anything more than hurriedly feed ten or twelve children who were in her charge. There was no opportunity of fondling them or of establishing individual contacts. It was further observed that the babies' facial expression became more rigid, frozen and immobile as the time of the emotional deprivation progressed and they gradually began to acquire a far-away and dazed look in their eyes. It would therefore appear that a period of three months separation of maternal attention causes the infant's D.Q. to regress on an average of 12½ points, from three to four months some 14 points and over 5 months about 25 points. The child separated from his maternal figure and thus emotionally isolated, loses gradually his previously acquired skills. In addition it has been noted that after a further period of separation from his familiar maternal image, he slowly gives up standing upright, walking and even sitting in his chair. He just lies down ready to fade away. His emotions become blunted and he ceases functioning on his developmental achievement level. The loss of his mental faculties still further leads to a lowering of his intelligence quotient and many of his former skills and abilities can never be regained. If the maternal separation extends beyond 5 months as above stated, the child becomes starved in his affective tone. This in its wake has a harmful effect on his mental and physical development and not infrequently leads to his premature death. An example of such extreme emotional deprivation which results often in an increased mortality rate, was observed in a Child Care Home on Randall's Island, New York, where of 366 motherless infants who were placed there for institutional care, only twelve were still alive a year later. In other words, there had been an infant death rate of 96·7 per cent. (Teagarden). Additional studies revealed that foundlings who were taken there under 6 months of age, had a very small chance of survival. These findings were established towards the end of the last century and conform more or less with the observations recently made by various investigators.

Infants need a personal, affectionate approach as well as individual care if they are to survive as physically and emotionally normal and intellectually balanced individuals. They continually need the fondling care, handling and love of their maternal figure. This personal attention is far superior and preferable to the best institutional nursing care and habit training if the child's mental development, physical growth and happiness are to be assured.

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Goldfarb noted that institutionalized children show what he called "a definite level of conceptualization, a difficulty in organizing a variety of stimuli, an inability to think abstractly or to make generalizations in their learning ability". He further believed that the differential diagnosis between children who have suffered early affective deprivation through living in an institution from those who had been traumatized by early rejection, can be made. The differences, he thought, were primarily due to the institutionalized child's inability to identify himself with a particular loving adult, whilst the rejected child has been able to relate but negatively to a person. In the former there is a lack of positive relationship whilst in the latter a relationship already exists though only negatively. He believed that the early identification is important for the development of the child's psychic structure which provides the motivation for normal maturation and differentiation of personality.

With regard to the question of behavioural isolation it does not suffice to assume that isolation is the primary factor in the etiology of retardation. In fact, it is not the isolation of the individual which produces the mental handicap but rather his lack of imaginative response and action in relation to the surrounding, static isolation. He is unable to escape from the latter owing to his poor native endowment and lack of inborn drive. In 1913, Schlesinger expressed the view that an impoverished, unhygienic milieu largely contributes to pseudo-retardation and that harmful exogenous conditions are more frequently responsible for the exacerbation of a masked state of backwardness than for the production of mental deficiency itself. Laquer and von Dühring stated that primitive, unhealthy living conditions such as poverty, squalor and decay of family life are important contributory factors in the causation of intellectual impairment. As far as the domestic conditions of any one generation are concerned, it goes without saying that good living habits have an increasingly good effect while bad customs a correspondingly bad influence on the child's mental and physical growth. Children of parents who are in poor health and surrounded by bad hygienic living conditions are tempted to overlook essential measures for their children's own welfare. The well-established bad habits and neglect in early childhood are not likely to change because they have come to assume the responsibility of parenthood. Their children in turn may again experience similar unhygienic conditions handed down by their parents thus perpetuating conditions conducive to an unsatisfactory socio-economic and cultural environment. A poor social inheritance, if we may call it by that name, is therefore the end result of multiple factors such as malnutrition, and a lack of adequate moral, religious and educational background accompanied by a low standard of physical and mental hygiene. The writer is of the opinion that the existence of unsatisfactory, economically poor domestic conditions of the retarded is mainly attributable to the unwise management of their finances, to their poor scholastic opportunities, to their lack of robust health, and to their intellectual insufficiency. The writer further holds that lack of common sense, drive and emotional stability are more potent factors responsible for the low economic standard of the mentally defective than solely their educational subnormality. As a consequence one may be justified in saying that the retarded person's lower rate of income and social standing are primarily due to his limited emotional control, and lack of basic common sense and education rather than to his social inheritance of subcultural home conditions.

Another hypothesis is that the basis of individual sociality is social interaction. This interaction becomes effective if the individual can look upon himself

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as an object or can become aware in advance of the reactions of his environment. This hypothesis makes an attempt to apply sociological concepts to the etiology of mental deficiency. Such sociogenic and environmental concepts are becoming increasingly untenable, if they are viewed as the primary basic factors in the causation of true mental handicap. The writer for one is unable to identify himself with the isolationist hypothesis which regards isolation as the principle cause of mental retardation.

This school's dogmatic conclusions remind the observant reader of the concepts expressed by the Behaviourist School of Watson. "It is doubtful" stated Wallin, "if any mentally defective child of the endogenous group has ever been restored to partial or complete possession of an average mentality merely by the methods of training and education commensurate with his environmental pattern of culture." To attribute an individual's inborn intellectual deficit primarily to his inadequate surroundings or to his parents' inferior social and occupational living standards, is a view which, in the writer's judgment, is quite untenable and ludicrous. With this deduction in mind, the "Milieu Theory" is bound to fail, for it attempts to explain primary mental deficiency solely as a consequence of social isolation. With regard to the preponderantly inferior occupational standing of the progenitors of retarded children, their wretched environmental conditions tend to show significantly that the crucial point in question, the milieu—is not the cause of the mental handicap but the result of the parents' intellectual insufficiency.

Factors arising in the mind play an important role in the aetiology of the pseudo-retardation syndrome. Many school children found to be emotionally unstable give the impression of being defective merely because of unfavourable, or unattractive teaching methods. A child from a foreign country or from a small rural community, for instance, has greater difficulties in adjusting than a child born in his own country. A pupil unaccustomed to such a socio-cultural situation with its new lingual and educational patterns, may present a superficial likeness to that of a backward person. This particularly applies to children coming from groups ethnologically different from those in their new environment (bucoliphrenia). These deep-seated psycho-emotional tensions and frustrations complicated by personality and temperamental disturbances seriously interfere with the normal processes of intellectual maturation. If such neurotic children be neglected for a long period of time or are not given adequate professional advice, reassurance and counselling, their native mental endowment and aptitudes may remain stationary or under-developed. There is a possibility that they will deteriorate intellectually at such an alarming pace that they would conduct themselves like persons with limited or even subnormal mental capacity. Finally, they would show signs of functioning on a mental defective level possibly to an extreme degree.

A relative problem is the tendency of the emotionally unstable, nervous and apprehensive child to appear at a disadvantage in the testing situation. In some individuals such temperamental inconsistencies and emotional upheavals seem to cause little or no lowering of intellectual functions. In others, however, the effect may be appreciable and of considerable magnitude. The problem of rapport and of putting the testee at ease is a vital and predominant one. The question of the effect of fatigue upon the test performance is, of course, also an important one, depending on personality, temperamental and psychological factors such as motivation. Some children become so emotionally tense and apprehensive in the presence of an impersonal and unduly strict examiner that

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they may obtain a rating equivalent to that of a slow-learning child. This same pupil, however, when put at ease by a sympathetically oriented and experienced psychologist, may obtain a score of a dull normal or even of an average normal individual. The testee's mental functioning on a pseudodefective level may be nothing more than the result of the examiner's inexperience, abruptness or impatience.

Other factors arising in the psyche may also contribute to a considerable extent to pseudoretardation. Speech inhibition, psychic mutism, frequent attacks of petit mal, pyknolepsic lapses or even subclinical episodes of paroxysmal cerebral dysrhythmia, often arouse suspicion of mental backwardness on the part of the educator, psychologist, psychiatrist or pediatrician. In such psychogenically disturbed, emotionally unstable children, a programme should be planned which, in addition to improving their academic, manipulative and vocational skills, should aim at diminishing tension, temperamental instability and thought blockage, and help to improve work and study habits, self-confidence and social maturity.

Quite apart from the organically caused visual, auditory and neuro-orthopaedic defects, which are apt to impair seriously the child's intellectual functioning in addition to the severe dysrhythmic disturbances above described, there are also certain psychotic disorders which seriously interfere with the child's ability to respond normally and thus simulate an intellectual insufficiency.

At a meeting held by the International Institute of Child Psychiatry at Toronto, in August 1954, the following observations were made: "Until a few years ago of most cases of child psychosis or borderline ego disturbances diagnosed as mental deficiency in a routine manner; the majority probably found their way into institutions for the mentally defective, a fate which in future, it is hoped, will be avoided as far as it is humanly possible. It would be interesting to survey the populations of Training Schools, for it is probable that a careful investigation would lead to the discovery of many individuals falling within this pseudo-mental deficiency class. It is therefore well to emphasize that considerable caution be experienced by pediatricians, psychiatrists and psychologists with regard to a correct differential diagnosis of mental deficiency in a young child under three years of age lest iatrogenic factors add to the burdens imposed by nature."

The suggestion that emerges from the above observations and discussion is to investigate not only the full history of the child's development and past behaviour but also to be equally careful about the records dealing with the developmental data and difficulties arising from the child's relationship with his parents, particularly with regard to behavioural disturbances that antedate the child's signs of mental subnormality.

In considering the psychotic states in comparatively young children, while relatively infrequent, they occur, although quite a considerable number of them remain undiagnosed.

About four decades ago or so, childhood psychoses were considered practically non-existent, but thanks to the monumental contributions to psychiatry by the Bleulers and the introduction of reliable diagnostic criteria, it has been made possible to detect a sizeable number of psychotic responses in various aspects of their behaviour. Those with an I.Q. of less than 30, showing a psychosis resembling that of infantile schizophrenia, were described as featuring a clinical picture of "Larval Psychosis of Idiocy" a term recently introduced by MacGillivray, being the equivalent of Earl's "Primitive Catatonic Psychosis of Idiocy".

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Fortunately infantile psychotic states only comprise a small proportion of the total psychoses occurring in adults.

Although the diagnosis of childhood schizophrenia which many would prefer to call infantile autism, prepsychosis or atypical development, is being established more frequently nowadays, this mental aberration continues to be unfamiliar to the majority of the medical profession. This leads to the situation whereby psychiatrists seldom have the opportunity to examine and treat schizophrenic children in their early stages until some years after their psychological disintegration and stereotyped regressed behaviour have become obvious and manifest to all concerned. Until quite recently many of these children have been regarded mistakenly as mentally deficient and have been relegated to Colonies and State Schools for the Mentally Retarded. It is therefore imperative that doctors, nurses and other child care workers become more familiar with the early diagnostic symptoms of, and treatment possibilities for, the infantile forms of schizophrenia.

In addition to childhood schizophrenia, other types of psychoses are also observed during that development period. There are the congenital syphilitic psychoses, the behavioural deviations following encephalitis lethargica which may be complicated by educational retardation and paranoid delusions, the traumatic psychoses, infectious diseases associated with mental derangement, psychoses with epilepsy and other primary aberrational disorders. The psychoses, because of their grotesque, bizarre patterns of symptomatology, may superficially resemble the more severe grades of mental deficiency and the examiner ought to keep this fact always at the back of his mind. By and large one should try to be extremely cautious and guarded about making a definite and final diagnosis of a psychotic disorder in a child of less than one year without the consultation of a team of specialists comprising a child psychiatrist, neurologist, psychologist, pediatrician and the child's own doctor.

In most cases of child psychosis complicated by mental defect, a history of normal mental and physical development data is found. These psychosomatic functions, however, tend to merge into an almost imperceptibly slow and increasingly abnormal pattern which culminates in a partial or complete loss of most of the acquired verbal and physical accomplishments.

The relationship of the infantile psychoses to oligophrenia has been discussed in some detail by Yerbury and others. Schilder pointed out, supporting A. F. Tredgold's observation, that a combination of a schizophrenic reaction state superimposed upon that of mental deficiency is not common and he further expresses the view that the syndrome resembling schizophrenia is at least in some cases the result of organic brain pathology. Space-occupying tumours involving the pre-frontal lobes, the pre-senile forms of dementia, e.g. Pick's disease, intracranial vascular lesions and the Gerstmann syndrome of dementia paralytica, predispose to the development of a mental syndrome simulating that of catatonia. A catatonic reaction state should also be thought of in those children whose frontal brain areas have been injured or singled out by hereditary, familial diseases.

There are authorities who are of the opinion that the defectives possess a certain resistance to developing mental disorders. Some maintain that only very few among them actually become of unsound mind. They believe that their relatively simpler nervous system renders them less sensitive to disturbing influences than is the mentally normal individual. Others again hold that the retarded, because of their inborn instability and frequently occurring developmental defects of the central nervous system, lose their mental balance readily

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under conditions of social stress and strain, economic competition and drugs. Consonant with this view, the writer is inclined to think that the retarded are more prone to neuroses than intellectually normal persons; however, they appear to be less frequently subject to states of psychoses.

Recent estimates of Neuer claim that at least twenty per cent. of persons who function on a high-grade level of mental deficiency manifest signs of a minor or major psychoneurosis or psychosis. The writer considers this figure too high. In his view, the incidence of psychosis in a Training School population ranges from one to two per cent., and that of neurosis approximately from four to six per cent., making a total of from five to eight per cent. for neurotics and psychotics combined. This figure is not appreciably at variance with the incidence of neurosis and psychosis among intellectually normal persons.

The classical condition of manic-depressive psychosis as presented in its clinical form of cyclothymia is infrequently met with among the mentally defective. The author is of the opinion, however, that retarded persons are never truly melancholic or manic as observed in the intellectually normal, they rarely display the clinical picture of the typical circular psychoses. Manic-depressive insanity is primarily a mental aberration affecting essentially highly integrated, intelligent individuals, which cannot, however, be said of our group of mentally subnormal persons.

The second most important group of mental disorders, the schizophrenic reaction states, are basically conditions of psychological disintegration and splitting of the personality as an entity. From this it would appear that the mental defective might be particularly prone to this schizophrenic form of behaviour deviation because of their poor quality of personality integration. The mental defects, as is well recognized, are essentially unintegrated in their psychological structure and the schizophrenic disorder is basically a disintegrating condition. It is therefore to be expected that fragments and atypical clinical combinations of sign and symptoms are found not infrequently among the defectives. In fact, the process of psychological fragmentation and disintegration makes the clinical differential diagnosis so complex and disconnected between intellectually defective and educationally normal psychotics that there is a tendency to regard the diverse scraps and dismembered pieces of behavioural deviation as being primarily schizophrenic in aetiology. The writer is convinced that this cannot be so, unless we are dealing with truly paranoid or hebephrenic forms of schizophrenia observed in high-grade mental defectives and in persons of borderline, or normal mental capacity.

The absence or presence of a wide scatter may in many instances help diagnose between familial forms of mental deficiency and psychotic states such as schizophrenia.

The familial defective conversely does not manifest a wide range of responses on a psychological test. Among those whose responses do scatter through several years they may be either schizophrenic or organically affected defects.

In cases where a psychotic condition, organic nervous disease or epilepsy, is associated with a state of mental deficiency, the clinical diagnosis should be primarily based upon the developmental data, family history, educational record, neurological examination and mental condition of the patient. Séguin in 1866 made the first observation that the psychoses are not infrequently connected with low-grade mental defect. He divided the psychotic disorders into the hyperkinetic and hypokinetic forms. Griesinger, in 1867, drew up a similar table classifying the aberrations as either apathetic or excitable. He regarded the

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signs of destructiveness, restlessness, aggressive conduct and fretfulness as expressions of a "pure mania".

MacGillivray, in his monograph on "The Larval Psychosis of Idiots", fully reviewed the early literature of mental deficiency complicated by psychosis, and stated "that A. F. Tredgold in 1908 considered the sudden violent brain-storms of idiots to be indicative of true insanity", and Barr claimed that insanity in the mental defective could be diagnosed as early as the first year of life; Kraepelin retained the traditional dichotomy which he renamed erethic and apathetic and described primitive reactions such as screaming attacks, rage, stupor, reactive depressions and manic-like attacks. Many of the mentally defective belong to the pathological group (idiots and imbeciles) who three or four decades ago were described as showing overt signs of a psychosis associated with gross hyperactivity. They were probably brain-injured individuals with a cerebral pathology and not true types of mental defect aggravated by a state of psychosis.

Hurd's belief was that attacks occurring in the severely defective should not be considered as episodes of insanity, and Benda observed that 56 per cent. of syphilitic idiots in his series demonstrated definite psychotic signs associated with specific neurological conditions such as tabes dorsalis or dementia paralytica. Penrose in an extensive study of 1,280 cases of mental defect noted that some showed quite definite psychotic signs, such as mannerism, negativism, catatonia and stereotyped behaviour. The writer has detected 12 defectives amongst a resident population of 1,853 mentally retarded persons exhibiting clinical signs of catatonia, resistiveness, and negativism, and in seven mid-grade defectives additional signs such as hallucinatory experiences, waxy flexibility, catalepsy, echopraxia and echolalia. Emotional disturbances and thought blockage were also observed.

Earl, in a series of 135 idiots, was able to define a sub-group of 38 defectives, as showing a syndrome consisting of catatonia, emotional dissociation, inaccessibility, deterioration in personal and toilet habits and indistinct articulation. He named this syndrome "Catatonic Psychosis of Idiocy", believing these psychoses "to be a form of schizophrenia played out at a motor level instead of the symbolic". Catalepsy alone may often occur as a complication in mongols and tuberous sclerotics. Rollin, quoted by Wallin, classified, 23·3 per cent. of psychotic mongols as showing a primitive type of schizophrenia.

There is, in fact, an appreciable number of children who have been evaluated as manifesting a state of pseudoretardation. The writer has observed many a patient who has never emerged from a chronic condition of psychotic illness and who throughout his life could not be psychometrically differentiated from a severely retarded person of primary or secondary aetiology. Under such circumstances one may be justified in doubting as to whether individuals belonging to the dilapidated, chronic group of psychotics should be classified as mentally deficient because of their inability to respond adequately to psychometric examinations. Before including these mentally reduced psychotics whose social and intellectual withdrawal symptoms commenced during their early childhood or adolescence, into the group of mentally defective persons, one ought to emphasize their resultant mental retardation differing in aetiology from all those customarily referred to as mental defectives, be they of endogenous or exogenous origin. Following many years of unrelieved, chronic psychotic illness, some patients degenerate from a state of chronic dementia to a condition of secondary oligophrenia. The speed of this intellectual reduction depends more or less on

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their constitutional and mental make-up, heredity and environment. Hecker, describing hebephrenia in 1871, stressed its appearance in connection with adolescence and emphasized the frequent and rapid deterioration of this psychosis into a condition of severe mental loss. A mental condition commencing insidiously or rapidly in late childhood years or adolescence is usually one of serious import for it often has a tendency to lapse into progressive levels of mental dullness or varying degrees of mental retardation. Such persons finally sink into a state of complete obliviousness to the environment, resembling a state of Wahnsinn-retardation. (Wahnsinn—insanity.)

The incidence of mental retardation in psychiatric hospitals fluctuates from five to ten per cent. of the total residential population.

Let us now proceed with the description of several important clinical syndromes which may be easily confused with mental subnormality.

In 1943, Kanner described a syndrome beginning in early infancy which is characterized by extreme introverted behaviour, withdrawal from contact with persons and features of dereism. To this syndrome he gave the name of early infantile autism. At first he regarded it as a distinct clinical entity but now in unison with the majority of child psychiatrists, he believes it to be identical with a schizophrenic state of the earliest possible onset. This infantile form of psychosis is sometimes referred to as prepsychosis or childhood psychosis.

During the early autistic phase of the schizophrenic illness, the children begin to reveal an emotional blockage, an inability to establish an effective relationship with their mother, revealing a permanent lack of emotional responsiveness, disturbances of associative thought, a tendency to divorce themselves from real existence and a preference for day dreaming. The parent begins to fear that her child is mentally defective because he does not talk on reaching his third or fourth year or because of his inability to relate to people adequately. The child's dereistic behaviour, extreme introversion and limited responsiveness give the impression that he functions on a mentally retarded level although it is subsequently found that he is of average or even superior intelligence. Those, for instance, who possess power of speech use an extensive vocabulary. Their facial expression is often remarkably bright and intelligent in spite of their continued divorce from interpersonal relationship. They are self-occupied and demonstrate peculiarities of memory, language and motor performance.

As the child grows older, however, he gradually begins to reveal the true nature of his mental illness. It becomes daily more clearly manifest that the clinical picture of his aberration is one of childhood schizophrenia as observed in adults in its fully developed state. Many of these children continue to function in an emotional vacuum although there are a few who attain normal intelligence and show some intermittent attention to persons and activities in their surroundings. However, in the adolescent, delusions and hallucinations become insidiously established. Some begin to display moroseness, moodiness, obsessive rumination and sudden unpremeditated outbursts of aggressive conduct. They show acute features such as grotesque, peculiar postures, an impaired ability to concentrate with an accompanying reduction in the standard of their scholastic work. They begin to sleep poorly, show a loss in appetite, mumble to themselves in response to imaginary voices, become inaccessible and dereistic. A period of lucidity at times ensues followed by a further exacerbation leaving them increasingly disorganized mentally and also with a changed personality. For practical purposes such a person is educationally subnormal and in the

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majority of cases ineducable owing to his progressive dissociative psychosis. The existence of schizophrenia in later infancy or childhood should be differentiated from mental defect, organic cerebral pathology, severe neurotic disorders, and behavioural disturbances. The latter result from deprivation of love and warmth on the part of parents who are "refrigerated and who cannot defrost" (Bender).

There are many retarded children, who on developing a psychosis in later life, demonstrate a pronounced delay in physical and mental development. We therefore require adequate and reliable methods in order to differentiate dependably and satisfactorily the mental defective from the psychotic. The very basis for an accurate diagnosis still rests on a detailed and reliable case history. The defective's inability to learn abstract subject matter and to adjust to normal situations in an emotionally mature manner are two of his most outstanding shortcomings. The psychotic, however, in early life, appears to be quite rational at first, emotionally stable and intellectually normal until some serious obstacle arises. He then begins to show signs of mood swings or a loss of contact with reality and finally loses all interest in his playmates, toys and environment. A sudden failure in his studies, a cyclothymic lability, catatonia, negativism, waxy flexibility, mutism and catalepsy are frequent prominent signs observed in adolescent psychotics.

The differential diagnosis of the more complicated cases of pseudo-mental deficiency requires the services of experts well trained and experienced in psychiatry, neurology, medicine, clinical psychology, mental deficiency and in methods of special education. The combined clinical result of the examinations and the scholastic evaluation should preferably be supported by additional psychometric, electroencephalographic and other diagnostic aids in order to arrive at a scientifically reliable diagnosis. Owing to an extensive overlap of psychoneurotic symptoms and a large variety of psychotic reaction states observed in both high- and low-grade mental defectives, it may be proper to describe these groups of patients as belonging to the category of mental retardates of the unstable type, namely the mentally subnormal with an engrafted insanity of "Pfropfpsychotics". The latter can be subdivided into the Pfropf-Schizophrenics and the Pfropf-Cyclothymics.

In 1896, Kraepelin defined the term Pfropf-Hebephrenia by explaining that in such cases "dementia praecox was in a certain manner grafted upon weakmindedness which had existed from childhood without local phenomena". The term Pfropf-Hebephrenia was then changed to Pfropf-Schizophrenia by Eugene Bleuler in 1911, whose suggestion it was to supplant the term dementia praecox by that of schizophrenia.

In an article written by Myerson dealing with mental deficiency and schizophrenia, he stated that "now and then one sees a feeble-minded patient suddenly enter into a deluded, hallucinated state, ending with marked mental deterioration which in a previously normal mentality would be called schizophrenia. On the whole it seems to be unlikely that there exists any biological connection between the two sets of conditions namely schizophrenia and feeblemindedness. The schizophrenic's disintegration of mental processes seems entirely different in nature from that of the inborn limited capacity of the feebleminded."

The etiological relationship existing between the hereditary forms of mental retardation and the functional psychoses has been fully discussed by Wallin in his book entitled *Children with Mental and Physical Handicaps* (1950). Some of the conflicting views universally held on their causal relationship are quoted

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as follows: "Both conditions have a common aetiology originating from the same genotype; both conditions are the outcome of a genetically tainted vulnerable brain sensitive to pre-, para- or post-natal traumas; there appears to be a compensatory mechanism at work between the two entities which tends to influence these mental conditions in a modifying manner. Mental deficiency changes the character of the schizophrenic illness and alternately the latter reinforces the state of mental retardation; the occasional concurrence is purely accidental. Others, however, maintain that there are no aetiological connections between these two conditions."

There are several other clinical syndromes simulating mental deficiency which, however, reveal a variety of different causative factors; amongst these we have, for instance, Heller's disease, lead encephalopathy and dementia praecocissima. These clinical entities are not infrequently responsible for so rapid a deterioration of a mental function that a child is quite often diagnosed as suffering from a galloping form of mental deficiency.

Heller's syndrome or dementia infantilis, is a progressive illness. Such children develop normally or precociously without any previous evidence of neurological, psychotic or intellectual subnormal history until they reach their second, third or fourth year of life. Before the onset of behavioural disturbances such as hyperactivity, restlessness, emotional instability and aggressive destructive conduct, some children appear to be quite normal and active. Others, however, exhibit fleeting hallucinations and delusions, mumble to themselves, become forgetful, inattentive, careless in their appearance and echolalic. They regress into mute behaviour and finally lose complete command of their power of speech. Language and emotional maturation begin to lag a little earlier. Neuronal degeneration involves the cerebral cortex, cerebellum and spinal cord and Corberi found in four biopsies "diffuse, acute lipoid degeneration of the ganglion cells" suggesting that their condition represents an inborn error of lipid metabolism such as is observed in the cerebro-retinal degenerations and Niemann-Pick's disease. Kuf described the last-mentioned condition as "Amaurotic Idiocy without Amaurosis". Schilder held that "dementia infantilis had nothing to do with oligophrenia but was an organic degenerative process culminating in pseudo-retardation". Kennedy and others reported cases in which progressive intellectual deterioration was directly referable to infantile pertussis, the children finally becoming defective in spite of the retention of an alert, attractive facial expression.

In children suffering from convulsions of more or less sudden onset and in whom some form of mental retardation has also been suspected, lead encephalopathy should be always thought of and excluded as an aetiological factor. In cases of lead poisoning in childhood the intellectual growth of the individual is in many ways seriously hampered. The death rate of children under five years of age is pretty high and the post-saturnal effects result in many cases in a certain degree of intellectual backwardness which often ends up in mental retardation. Lord made a follow-up study of twenty children who had received hospital treatment for lead encephalopathy in the pre-school age. All of these children, with the possible exception of two, made a very poor adjustment both emotionally and scholastically in the ensuing years. For this reason it is essential to see that prophylactic and legislative measures be taken promptly to prevent children from ingesting or inhaling lead particles from sources which may contain lead. Post-saturnal backwardness and mental deficiency are the result of neglect, lack of supervision and preventative care. It is of importance for the clinician to

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obtain a thorough history in all cases where very young children show intellectual deterioration so as to exclude the possibility of chronic lead poisoning, the source of which may otherwise remain undiscovered.

In 1905, De Sanctis described a condition of pseudo-mental retardation which he named dementia praecocissima; it is now considered to include a group of mental disorders of functional or organic etiology, which commence about the fourth year of life. The children exhibit some emotional blunting, gross intellectual loss and catatonic behaviour. These symptoms appear to point to a primary involvement of the prefrontal and frontal areas.

Summary

In this paper an attempt has been made to discuss possible conditions and clinical syndromes resembling true mental deficiency; it has been shown, however, that some of the neuroses, psychoses and diseases of the central nervous system simulate various types of mental retardation. Early environmental isolation and affective deprivation have been described as possible aetiological factors in the development of secondary types of oligophrenia. Great skill, patience and experience are needed by the clinician in order to arrive at a reliable evaluation of each individual case. The simultaneous existence or sequence of a psychosis superimposed upon a state of mental deficiency in the same individual has also been discussed at some length, and the world literature and views of different authorities reviewed.

References

Barr, M. W., *Mental Defectives,* 1904, Philadelphia.

Benda, C. E., *Amer. J. ment. Defic.,* 1942, **47**, 45.

Bender, L., *Am. J. Orthopsychiat.,* 1947, **17**, 40.

Corberi, G., "Sindrome Di Regressione Mentale Infanto-Giovanile", *Revista Di Pathologia Nervosa E Mentale,* 1929, **31**, 6.

Earl, C. J. C., *Brit. J. of Med. Psychol.,* 1934, **14**, 230.

Goldfarb, H., "The Effects of Early Institutional Care on Adolescent Personality", *Child Development,* 1943, **14**, 213-223.

Idem, "Infant Rearing and Problem Behaviour", *Am. J. Orthopsychiatry,* 1944, **14**, 162-166.

Idem, "Effects of Psychological Deprivation in Infancy and Subsequent Stimulation", *Am. J. Psych.,* 1945, **102**, 18-33.

Griesinger, W., *Mental Pathology and Therapeutics,* 1861. English Translation, London, 1867.

Hecker, –.: cited by MacGillivray.

Hurd, H. M., *Am. J. Insan.,* 1888, **66**, 263.

Kanner, L., *Child Psychiatry,* 1952. New York.

Idem, Recent Developments in the Concept of Etiology of Mental Retardation. Baltimore, Md.

Kennedy, R. J. L., quoted by Wallin.

Kuf, H., "Über eine Spätform der amaurotischen Idiotie und ihre heredo-familiären Grundlagen", *Ztschr. f. d. ges. Neurol. u. Psych.,* 1925, **95**, 169.

Kraepelin, E., *Dementia Praecox* (Translated by Mary Barclay). Edinburgh, E. and S. Livingstone, 1919.

Lord, A. E., "A Survey of Four Hundred and Forty-Nine Special Class Pupils", *J. of Educ. Research,* 1933, **10**, 108-114.

MacGillivray, R., "The Larval Psychosis of Idiocy", *Amer. J. ment. Defic.,* 1956. Vol. 60, No. 3.

Myerson, A., et al. *Eugenical Sterilization. A Reorientation of the Problem.* 1936, The MacMillan Co.

Neuer, H., "Prevention of Mental Deficiency", *Amer. J. ment. Defic.,* 1947, **2**, 727.

Idem, "The Relationship between Behavior Disorders in Children and the Syndrome of Mental Deficiency", *Amer. J. ment. Defic.,* 1947, **10**, 147.

Penrose, L. S., *Mental Defect,* 1934, p. 140. New York and London.

Rollin, H. R., "Personality in Mongolism with Special Reference to the Incidence of Catatonic Psychosis", *Amer. J. ment. Defic.,* 1946, **10**, pp. 219-237.

Sanctis de, S., "Neuropsichiatria infantile", *Patologia e Diagnostica,* 1925. Rome.

Idem, "Types et degrés d'insuffisance mentale", *Année Psych.,* 1906, **12**, 70.

Schilder, P., *Mental Hygiene,* 1935, **19**, 439.

Schlesinger, E., *Schwachbegabte Kinder,* 1913. Stuttgart: ENKE.

Idem, "Das geistig und seelisch abnorme Kind", *Gesundh. Fürs. Kindesalter,* 1930, **5**, 189.

Seguin, E., *Idiocy and Its Treatment by the Physiological Method,* 1866. New York.

https://doi.org/10.1192/bjp.105.439.406 Published online by Cambridge University Press

SPITZ, R. A., "Mental Health and Infant Development", ed. K. Soddy, **1**, 103.
Idem, "Hospitalism". In *The Psychoanalytic Study of the Child*, ed. O. Fenichel, 1945, pp. 53-74. New York, International Univ. Press.
TEAGARDEN, F. M., *Child Psychology for Professional Workers*, 1946. New York, Prentice-Hall, Inc.
TREDGOLD, A. F., *Mental Deficiency*, 6th Edition, 1937, p. 380.
WALLIN, W. J. E., *Children with Mental and Physical Handicap*, 1950. New York, Prentice-Hall, Inc.
YERBURY, E. C., and NEWELL, N., *Amer. J. ment. Defic.*, 1942, **47**, 70.

https://doi.org/10.1192/bjp.105.439.406 Published online by Cambridge University Press