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THE PSYCHOSES OF ADOLESCENCE*

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The subject chosen for this discussion is of importance not so much by reason of the total number of cases occurring at this age period, but because it is during adolescence that appear the first manifestations of two outstanding clinical syndromes, the more pronounced examples of which form a considerable proportion of the population of our mental hospitals, while milder forms are far from uncommon in out-patient and general practice.

It will be seen from the diagram below that the incidence of psychoses rises from the age of 15, before which time insanities are infrequent. On the other hand, the history of some adolescent psychoses indicates that a change in disposition may occur several years before hospitalization becomes necessary. To this extent official statistics tend both to minimize the duration of attacks and to overestimate the age of onset. After the age of 20 the insanity rate continues to rise more gradually. It will be noted, further, that the manic-depressive psychosis and dementia praecox show a maximum incidence at an age of onset between the age of 20 and 25. Although epilepsy and delinquency are not psychoses it is interesting to observe that the former, presumably constitutional in nature, and the latter, in which social factors play no inconsiderable part, both display an age incidence which is remarkably similar to that of the psychoses, all of which points to a heightened instability at this period. Biological causes are doubtless at work in delinquency as well as in other deviations from conventional behaviour.

Physical and Mental Changes of Adolescence

During adolescence the body attains its maximum height, and "filling out" takes the place of linear development. The brain reaches its maximum capacity at 16 years, an age which is accepted by psychologists

as marking the termination of the growth of intelligence, although doubtless in the bulk of mankind there still proceeds organization of nervous structures and an improvement in efficiency of reaction. During this period there is increased activity of the endocrine system, in which the thyroid, the pituitary, the gonads, and probably the adrenal glands are affected. This provides the organic substratum for the profound changes in behaviour exhibited by the adolescent. Above all, the maturing of the sexual apparatus, including the appearance of secondary sexual characteristics, is responsible for urges of far-reaching significance. Whatever interpretation

we may care to place on activities in the sexual organs in early life, the maturation of sex in its biological sense can hardly be said to begin before the onset of certain physical changes, and does not attain full development before the third decade.

The brain should normally assume control of the vegetative mechanisms concerned with the life of internal relation, and should function as the arbitrator between inner urges and stimuli derived from the exterior, expressed in psychological terms as the conflict between self and society. It is probable that some forms of adolescent instability are due to unequal development of the

A, First attacks of manic-depressive psychosis (Kraepelin).
B, Age of onset of dementia praecox (Kraepelin).
C, First attacks of epilepsy, not including infantile convulsions (Kraepelin).
D, Age at first conviction of 2,204 habitual offenders (Burt).
The continuous black line indicates the rate of incidence of insanity per 100,000 of the population living (Robertson).

controlling and impulsive mechanisms. Physique may outgrow prudence, intellect may outstep initiative. At this stage our knowledge of what goes on inside fails us—there are too many missing members in the chain between mental and physical, so that we must be content with description in general terms. In discussing the psychology of adolescence, we enter a field in which the novelist and the dramatist have up to quite recent times displayed greater understanding than the professional student of mankind. Accompanying the physiological unrest there is also an emotional disturbance closely related to the transition from egocentricity to altruism, involving in some individuals a sense of self-sacrifice, the comparative and the morbid psychology of which have been investigated by Jung. Keyserling¹ has made some interesting comments on the psychology of adolescence:

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"In order to get the right start, let us recall what was said about youthful idealism: it is essentially an idealism without an object, because the supposed-to-be object really only means a projection of the inner urge. For this reason the objectified ideals of youth can never be taken seriously if they are meant to represent more than ideals for the young. But in the same sense youth is, generally speaking, the most uninteresting phase in human life. The period of youthful *Sturm und Drang* which older people are so apt to relate to spiritual values is, for the most part, a result of typical organic processes; and youth's ambition, too, is a natural physiological phenomenon. It is likewise the result of physiological, and therefore unalterable, causes that its interest in problems belongs more to the intellect alone, reflected in emotions and feelings, than to the whole personality; youth is never psychologically integrated; the various constituents of the soul play almost independent parts. Accordingly, its interest in problems is always a mental and not a vital interest. This is why the idealist is generally considered as unpractical and lacking in common sense: his ideals are not correlated to the other functions of his psychic organism. This also explains why the idealist usually is a hopeless radical: lacking the above-mentioned correlation, there is nothing to prevent his thoughts from following their own laws only, and the laws of abstract thought are purely logical: the pragmatic test does not apply to them. Accordingly, a young person can be rightly judged only when considered as a being in the state of development. It follows that the real and basic value of youth lies in its plasticity as such, and that only this plasticity can provide a true standard of value. It has nothing to do with any kind of contents. It follows, further, that youth loses not only its chief, but its one asset, if it loses its plasticity. . . ."

Youth should be full of effort. The quiet, passive adolescent is the one who seems most likely to develop the more serious psychosis. Erotic manifestations, provided they are kept within bounds, are less subject to repression and reprobation in these more discerning days. As Clouston² pointed out: "The highest moral qualities, the keenest yearnings after the good, the intensest hatred and scorn of evil are not to be found in the asexual men or women."

Classification

The psychoses of adolescence comprise the following, which, of course, are not restricted to this age period, but which, as regards the circumstances of their onset and their symptomatology, may present more or less distinctive features:

(a) Organic group:

Confusional psychosis.

Psychoses associated with epidemic encephalitis, general paralysis, and epilepsy.

(b) Biogenic or functional group:

Manic-depressive psychosis.

Dementia praecox or schizophrenia.

Confusional Psychosis

Apart from the delirium which may accompany an acute infective illness, the more lengthy clouding of consciousness which goes by the name of confusion is not a common occurrence in adolescence. Jones and Minogue³ found that its greatest incidence is between the ages of 30 and 60 in men, with alcohol as an outstanding factor, and between 20 and 50 in women, in whom alcohol and child-bearing—especially the puerperium with its toxic disorders—are of about equal importance in the aetiology. Alcoholic indulgence is less frequent and less severe in adolescence, and years of excess have not had time to exert their cumulative effects. Further, more hygienic methods of living and greater attention to the care and culture of the body tend to eliminate certain physical factors. The days of the apprentice who worked long hours at his trade by day and sacrificed his sleep

to study are over. Rarely does one find intense mental application as an outstanding factor in confusional or other psychoses without some emotional basis. More often there is a history of more or less futile attempts on the part of the patient to grasp what is beyond his capacity, followed by disappointment and impairment of sleep, appetite, and general condition, leading on to exhaustion.

The acute confusional psychosis usually occurs in an individual who has displayed no outstanding psychopathic features in his make-up, and a history of exceptional or prolonged physical or mental stress may usually be obtained. In the earlier stages and in mild cases throughout the illness there is a subjective awareness of difficulty in concentration, and it is obvious to observers that attention is directed with distinct effort and is rarely sustained. There is often an appearance of perplexity. Impairment of awareness of the environment is responsible for the suspicion which is exhibited regarding the actions of others. An excellent illustration is the description of Ophelia (*Hamlet*, Act IV, Scene 5). In the fully developed psychosis the clouding of consciousness involves a gross defect of recent and remote memory, and a reduced and distorted awareness of temporal and spatial relationships. The emotional tone is apt to be variable, but action and speech, and the hallucinations which are almost invariably present, are in accordance with the mood of the moment.

The impairment of contact with environment is usually sufficiently obvious in patients who talk. In those who are silent and inaccessible a diagnosis from melancholia may not be easy. In either case the prognosis is favourable. Some confusional cases exhibit catalepsy, with a tendency to assume attitudes and perform antics and to retain postures which have been imposed on them by others (*flexibilitas cerea*). In the absence of any morbidly introvert traits in the ordinary personality of the patient, with a fairly rapid onset, and with clear evidence of physical or mental stress, return to normality is still likely. Occasionally one sees residual mental impairment after a severe delirium or confusion.

Epidemic Encephalitis

Closely associated with the confusional group are the mental disturbances of acute encephalitis, taking usually the form of a drowsy delirium, sometimes of the "occupational" type, with hallucinations—perhaps more often illusions—of various senses. The patient is apt to complain of curious distortions of vision, for which internal and external ophthalmoplegia may be held responsible. Pyrexia, cranial nerve palsies, transient or sustained involvement of the pyramidal and pre-pyramidal systems, together with pathological changes in the cerebro-spinal fluid, will exclude a stupor of hysterical or psychotic origin. Where neurological signs are less evident, the previous personality of the patient, the mode and circumstances of onset of the stupor, and its duration, should be taken into account. In the delirium of encephalitis the patient can usually be roused, though with some protest on his part, to a temporary contact with his environment, while in psychotic stupor there is either a passive failure to respond or else an active, determined resistance to examination. In childhood and adolescence the higher centres are more vulnerable to the virus of encephalitis, so that we occasionally see that interesting but cruel experiment of nature whereby a profound alteration of character follows this particular form of cerebral infection. Although, as in neurosyphilis, actual dementia may occur, the striking features are deterioration of moral sense and the proneness to impulsive violence which are uncommon in juvenile paresis. These

mental changes are not so frequently associated with neurological sequels.

Difficulty may be experienced in differentiating Parkinsonism, melancholia, and katatonia (dementia praecox). Increasing fatigability and sense of effort, together with moderate depression, encourage a tentative diagnosis of neurasthenia or mild melancholia. With the establishment of more definitely Parkinsonian signs the depression rarely becomes more intense, and, on the contrary, more often gives place to a complacent attitude, which acts as a fortunate compensation for the physical disability. A pronounced slowing of thought and movement with but slight depression should not tempt the physician to the more optimistic diagnosis of melancholia without a careful examination for signs of a pre-pyramidal disorder.

A moderate degree of Parkinsonism in an adolescent, together with deterioration of sentiments, impulsive behaviour, restlessness, and the loss of interest which goes with the sluggish mentality of this syndrome, may be mistaken for katatonia. Here again attention to the previous personality of the patient and to the mode of onset of unusual mental features is of assistance, while as regards the actual clinical condition there should be noted an absence of the hallucinations, delusions, and oddities of behaviour, including negativism (active resistance to contact with the environment), which are invariable features in the katatonic variety of dementia praecox. In fact, the association of a true psychosis with epidemic encephalitis in either the acute or chronic stages is remarkably infrequent.

Juvenile general paralysis accounts for a small proportion of the psychoses of adolescence; the mental symptoms often resemble those present in dementia praecox.

Dementia Praecox

In 1860 Morel, who appears to have been the first to employ the term, described a *démence précoce* in a boy of 14. A little later Kahlbaum gave the name hebephrenia to psychic decline occurring at puberty, and in 1871 appeared Hecker's celebrated monograph in which were given as the outstanding features of this condition: onset at puberty, and progress to mental deterioration through phases of excitement, depression, or confusion.

In 1874 Kahlbaum noted the association of certain mental symptoms with disturbance of the voluntary motor system in adolescents, which he termed katatonia (*Spannungsirrese* or tension psychosis). In the symptomatology he referred to epileptiform attacks, mutism, states of ecstasy, stilted speech, and waxy flexibility. He also stated that these patients might either recover or dement. In his *Neuroses of Development* (1891) Clouston did not attempt any clear definition of the insanities of adolescence, and ignored the German writers, though he stressed the hereditary basis ("the most hereditary of all insanities"), and estimated that recovery occurred in 60 per cent. of cases, with dementia in the remainder. At about the same time Kraepelin began to elaborate his classification of the "functional" psychoses on a basis of aetiology, course, and outcome, out of which he evolved the recoverable manic-depressive and chronic dementia praecox groups, adding to the latter dementia paranoides and katatonia (*Psychiatrie*, fifth edition, 1896).

According to Kraepelin the diagnostic features of dementia praecox are: weakening of emotion, lack of congruity between thought, mood, and action, and a tendency to intellectual deterioration. The curious distortion of the association of ideas, and the general lack of system in the various mental activities which is generally regarded as a prominent feature in dementia praecox, has been emphasized by Wernicke ("dementia sejunctiva," 1900), Stransky ("intrapsychic atoxia," 1909), and Bleuler ("schizophrenia," 1911).

In 1906 Adolf Meyer⁴ gave his formulation of dementia praecox to the Toronto meeting of the British Medical Association, and opened new avenues to the understanding

of this condition. Beyond reference to hereditary antecedents and to the presence in childhood of some patients of mental qualities similar to those of adult cases with incomplete remissions (shyness, sensitiveness, docility, disinclination for activity, instability), Kraepelin and others had paid little attention to the type of personality of individuals who develop dementia praecox. In fact, but for the diagnostic importance of progressive intellectual failure in some cases only determined after years of observation, Kraepelin's conception may be regarded as essentially static and singularly unfortunate for those patients for whom nothing more is done than to attach a diagnosis which conforms to Kraepelinian rules.

Since Meyer has recently declared that the Toronto paper still represents his views on the subject, some of his main points may be recalled. In the first place, he emphasizes the importance of making a distinction between fundamental and incidental symptoms. As fundamental in dementia praecox he points to the lack of adaptability displayed by many patients before the recognition of the actual psychosis, which he suggests may be due to a deterioration of habits.

"The main principle is that many individuals cannot afford to count on unlimited elasticity in the habitual use of certain habits of adjustment, that instincts will be undermined by persistent misapplication, and the delicate balance of mental adjustment and of its material substratum must largely depend on a maintenance of sound instinct and reaction type."

Secondly, Meyer discourages the emphasis on dementia. Already the scientific prescription of occupation, selected and controlled as far as possible to meet the needs of individual cases, has shown that part at least of the symptomatology of dementia praecox is due to a deterioration of conduct which is not beyond remedy. The opinion is also expressed by Meyer that the varieties of which Kraepelin originally described four, but finally eleven, will "claim less attention with the growth of knowledge concerning the essential nature of dementia praecox." Between those who become uneventfully stupid and those whose psychic decline is adorned by a wealth of symbolic fantasy there is a motley group with a constantly changing picture of excitements and inhibitions. Those cases which "in their time play many parts" no doubt invite diagnostic finesse, but the final decision must rest on fundamental points.

Since Meyer wrote "there is not much definition yet about the histological process which is the structural expression of the deterioration," much attention has been paid to the pathology of the neurone. After thirty years we may still agree that "its slightness suggests a mere bankruptcy under anomalous or even ordinary demands, with insufficient funds of adjustment. Many forms are so acute that they suggest a histologically well defined crisis, but the data are still too slender." As will be seen later a similar interpretation may be given to the results of research conducted along lines which were hardly envisaged in 1906.

While admitting a difficulty in defining the precise boundary between normality and psychopathy Meyer and his pupils have attempted to formulate in some detail those traits which appear most frequently in the histories of the personalities of cases before the development of actual psychosis. We are indebted to American psychiatry for common-sense and practical descriptions which are refreshingly free from the obscurities of certain European schools. For example, August Hoch pointed out:

"We find in dementia praecox persons who have not a natural tendency to be open and to get into contact with their environments, who are reticent, seclusive, who cannot adapt themselves to a situation, who are hard to influence, often sensitive and stubborn, but the latter more passive than in an active way. They show little interest in what goes on, often do not participate in the pleasures, cares, and pursuits of those around them; although often sensitive, they do not let others know what their conflicts are, do not unburden their minds, are shy, and have a tendency to live in a world of fancies."

The history of a personality which is inadequate in the emotional rather than in the more purely intellectual field is sufficiently common to be significant. How far the "fixation" of the Freudian school and the "regression" suggested by Jung—whatever their descriptive value—throw any light on the essential nature of dementia praecox will no doubt engage the attention of this meeting. With the acquisition and correlation of more data concerning human development in both its physiological and its psychological aspects there will surely be evolved a less fanciful measure of maturation than the Freudian instrument. Nevertheless, it would be less than just to overlook the vitalizing effect of the Freudian movement upon the study of the dynamic aspects of psychopathology.

It is not hard to understand how introvert qualities become accentuated to a degree that seriously threatens the capacity for normal adaptation. In these sensitive and self-centred individuals character development is liable to be stunted through the absence of social contacts, the rivalries and the struggles for self-expression which should comprise the essence of normal activity. Hence it comes about that the most trivial failure, the merest decline from quite exceptional ideals, throw the adolescent more into himself and add yet another bar to his self-constructed prison. Unhealthy ruminations, sexual perversions, devotion to abstract study, religious exercises which savour more of self-gratification or of a maudlin penance ("frothy, sentimental religionism" of Clouston), are some of the undesirable accretions of introversion. Many of us have learned to hear with dismay the praises sung by the parents of some of our adolescent psychotics: "He was always such a good lad, he never gave us any trouble"; "he is so studious and serious-minded; he spends hours over books on philosophy and psychology."

It is important to draw a distinction between the life of retirement and self-denial which is creative, and the type now under discussion, which is merely indulgent, essentially effortless, and futile. For a time there may be success in a narrow scholastic field, but one which is rarely maintained with the backing of a solid, well-developed personality. Hence we see not infrequently a disintegration of personality apparently initiated by a failure to accept responsibility, or by some shortcoming in the field of emotion and sentiment rather than of knowledge and intellect.

References may be made to some possible influences in the upbringing of cases of dementia praecox. McGeorge⁵ is impressed by the number of disciplinarian repressive parents whom he terms "schizogenic." Kasanin⁶ points out that the inferiorities of the schizophrenic child invite a protective attitude on the part of parents; hence, emotional development and capacity for independence are discouraged. Perhaps one more often finds that these children are subjected to a conflict of disciplines to maternal solicitude and to intolerance and discouragement by the father, who has no patience with a weakling. Admittedly one also sees cases in which the parents have long recognized and dealt with these inadequacies according to sound psychiatric principles, but without success.

The Manic-depressive Psychosis

Out of the states of excitement and depression, mania, and melancholia, which have been recognized from classical times, Kraepelin evolved his concept of a syndrome characterized by a predominant affect occurring as a phase, or attack, with return to normality, but with a liability to relapse after an indefinite period. Many cases preserve unimpaired mentality in spite of numerous attacks. As in dementia praecox, there is a hereditary and constitutional background, and the incidence of first attacks is

greatest in adolescence and early adult life. In the pre-psychotic personality there is often evidence of depressive and hypochondriacal trends or of other manifestations of instability, whereby the patient has usually been regarded by his parents as a "nervous" child. Occasionally we are told of a shyness, seclusiveness, or obstinacy which is more in keeping with a schizoid constitution. In a series of cases with depressions of all intensities, but without a schizophrenic symptomatology, I found that a third had a history which pointed to marked introversion. Until there is more continuity of trained observation of the nervous child up to maturity, the retrospective assessment of morbid features will remain obscure and full of error, and fundamentals and incidentals will be hopelessly confused.

The symptomatology of the manic-depressive psychosis in adolescence does not differ materially from that presented by adult cases, except that the patient refers more commonly to mind and body than to estate. Hypochondriacal complaints and fears in depression, an exaggerated egotism, and over-confidence of personal capacity, with intolerance of discipline and erotic trends in mania, are typical features of this psychosis in adolescence. Each case presents a variety of symptoms, which are determined by upbringing and personal interests and experiences, and which are of less diagnostic importance than the occurrence of a sustained exaggeration of affect in the direction of depression or elation with consistent ideation and conduct.

The recognition of these two syndromes—dementia praecox and the manic-depressive psychosis—the former characterized by oddities and inconsistencies and a marked tendency to chronicity, the latter by the relatively benign occurrence of a periodic exaggeration of mood, is a landmark in psychiatry. Unfortunately, there are many cases which refuse to be pigeon-holed into one or other category. In this connexion most will agree that Kretschmer's correlations between physique, temperament, and psychosis hold good only for a certain proportion of "functional" psychotics, the remainder displaying features which partake of all his types. Between the cases displaying clear-cut exaggerations of mood with accordant thought and conduct and those with the insidiously developing inconsistency, variability, and apathy which we term "dementia praecox" are the mixed forms which provoke our diagnostic and prognostic acumen.

Many of our difficulties no doubt arise from an adherence to a faculty psychology which has outlived its utility, so that exaggerated importance is attached to a minute analysis of ideation and behaviour. The mere observation that a patient is suspicious or impulsive is comparatively valueless without reference to personality and circumstances. Perhaps the most important advances in the understanding of the biogenic psychoses during the past three decades have resulted from a shifting of emphasis from symptoms to personality. From the prognostic standpoint it may be accepted that the more "normal" the individual, the richer his interests; the greater the physical or mental stresses, before the development of the psychosis, and the more rapid the onset of mental symptoms, the better the outlook.

Pathology of the Psychoses of Adolescence

With the development of neuro-histological technique the experience derived from the study of general paralysis and other clearly organic conditions has been applied to the biogenic or functional syndromes. Changes in the brain in dementia praecox have been described by Nissl and Alzheimer among earlier workers, and more recently by Mott, Dunlap, and Spielmeyer. Briefly, cases of long standing show thickening of the meninges and

destruction of cells in the deeper layers of the cortex, with moderate gliosis, but with minimal involvement of the tangential and other connecting systems. More recent and acute cases have revealed evidence of metabolic disorders in the neuroses, such as eccentricity of the nuclei and varying degrees of disintegration of Nissl substance, accumulation of lipoid, and an abnormally acidophil staining. Dunlap, after comparison with control tissues, failed to satisfy himself that some of the changes described were pathological, while others, he suggested, might be due to intercurrent physical diseases, such as respiratory infections, or to unknown factors. Spielmeyer has provided further evidence in favour of the intoxication origin of the cell changes, and has also pointed out that actual destruction of cells is a feature of other psychoses which are more clearly organic, so that while there appears to be a neuropathology in dementia praecox it is not yet possible to claim any specificity in the nature of the cell changes. The manic-depressive and schizophrenic psychoses can hardly be considered fatal in themselves, although these disorders of behaviour invite respiratory and other infections, and life may be endangered through exhaustion. Pathological changes which are due to such complications can be excluded only by the examination of material from patients with recent psychosis dead through violence.

Mott's interpretation of the brain pathology as evidence of deficient oxidation, and the clinical indications of defective psycho-sexual development, led him to investigate the endocrine system, where he found degenerative changes in the gonads (regressive atrophy), pituitary, and adrenal bodies, and to a lesser extent in the thyroid glands. His findings have either not been substantiated by other workers or have been found only in a certain proportion of cases. Here again the same fallacies need to be excluded as in the pathology of the brain. Clinically, the exhibition of thyroid and other glandular extracts has not been proved above doubt to be of therapeutic value. Further, with the possible exception of the thyroid, destruction or removal of endocrine glands (for example, castration) is not followed by unequivocally schizophrenic or manic-depressive features.

Mott's work on the cellular pathology of dementia praecox, which he held to be due to an innate lack of vitality, has been carried a stage further by Golla and his associates in their studies of biochemical reactions, including carbohydrate and basal metabolism and urinary and respiratory responses, which point to a hyperacidity of the tissues, a condition which is present normally during sleep, and which may be referred to a depression of the centres controlling respiration. There has thus been afforded on the biochemical side a possible explanation for the morbid inertia which is such a striking clinical feature of well-established cases of schizophrenia. Nevertheless, we remain in doubt as to how far these biochemical reactions are constitutional anomalies, specific to these psychoses, due to infections or other acquired factors, or merely the sequel rather than the cause of a reduction of activity. Loevenhart and others, by employing inhalations of oxygen and carbon dioxide, increasing the latter from 10 up to about 40 per cent., have produced a transient accessibility and comparative normality in patients who have long been mute and detached from their environment. Paradoxically, good results are also claimed for prolonged narcosis under sedative drugs.

Any discussions on the pathology of the biogenic psychoses would be incomplete without reference to the work of Zondek on the bromine content of the blood and the cerebro-spinal fluid in manic-depressives, which he maintains is fairly consistently below normal during the attack.

Zondek has also found that the bromine content of the hypothalamus is three times as great as that of other portions of the brain, and that it is higher in the anterior than in the middle and posterior sections of the pituitary gland. It has yet to be shown whether these findings have any connexion with the vegetative and metabolic disturbances observed in these psychoses. Those of us who incline to the view that the manic-depressive and schizophrenic syndromes are not mutually exclusive find it difficult to accept Zondek's findings as specific.

Treatment

Whatever may be the significance of biochemical or other physical deviations from the average in the psychoses, the means for their correction are not yet available, so that these links with the more clearly organic provide no justification for any relaxation in our present methods of treatment. Here it may be stated that the possession of a psychosis does not entitle a patient to a degree of surgical intervention which would not be justified in a sane individual. The increasing provision of public facilities for treatment, and the better understanding on the part of the general medical practitioner of these cases, leading to earlier recognition, will, it is hoped, be reflected in a lower incidence of institutional cases. And in this connexion it may be observed that purely institutional experience tends to foster an unwarrantably pessimistic attitude towards prognosis, especially in the schizophrenic series, taking no account of the slighter cases that remain in their own homes. Indeed, unless institutional care allows for some degree of individualization it had better be postponed in many schizophrenics.

However much we may have advanced in detail, increased knowledge has not encouraged us to depart from the principles laid down by Clouston in 1891—namely, to “build up the bone and fat and muscle” and “rather restrain the imaginative and artistic faculties and sensitiveness and idealisms generally, in the cases where such tend to appear too early and too keenly. . . . 3. Cultivate and insist on orderliness and method in all things.” Handicrafts to provide the means for self-expression and the satisfaction of achievement, recreation in groups to encourage sociability, and the maintenance of psychological contact between physician and patient are important aspects of treatment. Using Hughlings Jackson's phrase, there is usually some “intact remainder” to work upon, and however unpromising the outlook it is better to treat the patient for what he is than to neglect him for what he may become. Finally, the recognition and correlation of anomalies of character and temperament during the school years, and the examination of the children of psychotic parents, offer a possibility of preventing or arresting more serious mental abnormalities.

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- (Further references will be found in Devine: *Recent Advances in Psychiatry*, second edition, 1933.)

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