Section of Psychiatry

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Psychoses in Children

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THE problem of the psychotic child is one which, if not insoluble, is at any rate not solved. This study is presented, therefore, for discussion, rather than as new material from which conclusions may be drawn, and no attempt has been made as yet to enlarge the inquiry to one of statistical value.

Not the least of the difficulties has been to trace and then to evaluate the present condition of the cases referred to. The clinical material is supplied by the discharges from the Maudsley Hospital Children's Department, both in- and out-patients, during the years 1935–36 and 1937 to the end of September. The children are boys and girls below the age of 16, and the cases include all those who were given, on discharge, a diagnosis of a psychosis.

With one exception, to which attention will be drawn later, the organic psychoses —i.e. psychosis with known cerebral lesions such as congenital G.P.I.—are not here considered. Nor are those cases with epilepsy, encephalitis and chorea included, since a major part of the responsible pathological process is known.

Limiting the inquiry in this way, there are 35 discharged cases under review, with one special case—an organic deterioration referred to in the text—added for comparison. Any doubtful cases are excluded—one, for instance, in which an attack of mental dullness, anxiety, and a state of fatigue and apathy was associated with some evidence of an intercurrent physical illness, possibly a septic focus, which resulted in a retrobulbar neuritis from which there was complete recovery. While a schizophrenic illness was properly queried, it seemed that other explanations were possible.

On the other hand, cases of borderline mental defect, in which the psychosis has clearly supervened, are included, and form one of the more clearly differentiated groups.

It was not realized until after a preliminary survey that this study could be regarded as one of schizophrenia. The affective psychoses in children are known to be rare—a point made by Kasanin (1931), and Kanner (1935) speaks of them as exceedingly rare. Since the total number of discharges from the Children's Department during the period under review was 1,265 cases, it is surprising, but corroborative of these views, that the series included no instance in which a certain diagnosis of affective psychosis could be made. It will be seen that a few cases show a marked mood-swing and that in one, this was so pronounced—wholly constituting the disease and dominating the clinical picture for months—that a tentative diagnosis of manic-depressive psychosis was made.

In this connection it is interesting to compare this series with the observations of Kasanin and Kaufmann (1929–30) working at the Boston Psychopathic Hospital, and those of Burger-Prinz (1935) working in Leipzig. Kasanin and Kaufmann took for study 25 cases of functional psychosis from a total of 160 psychotic children. Of these 21 were accepted as cases of schizophrenia, and four were diagnosed as cases of manic-depressive psychosis. But in two of the four, the diagnosis was at least doubtful, both showing schizoid features and one being almost certainly hallucinated. It is therefore possible that subsequent observations will not justify placing these

two cases in the affective group, bringing the numbers down to two certain ca both over 14 years, among 160 psychotic juveniles. This is of more than acade importance, since it cannot be denied that many cases present themselves wit clinical picture of marked affective disorder and mood-swing. Great caution sh be observed in making an early diagnosis of manic-depressive illness, with a prognosis, apart from the fear of recurrences. Many such cases, in the long prove to be early schizophrenic reactions, and the presence of an affective colou cannot, in our present state of knowledge, be taken as even suggesting that the dise may be of the benign type, with complete or lasting remissions.

Burger-Prinz, referring to the work at the Kinderpoliklinik in Leip considers the material for the last nine years, finding 68 cases which were certa psychotic. Of this group of 68, he regards 20 as true schizophrenics, 20 as ma depressives, 20 as cases of psychoses or psychotic episodes in unstable, psychopa juveniles including some temporary derangements at puberty, and eight case which he is not prepared to make a differential diagnosis between schizophrenia manic-depressive psychosis. The striking thing about his observation is, of cou the remarkably high proportion of affective psychosis. This can be understood w he describes his diagnostic criteria. Among depressive cases, he includes many showed catatonic phases, stereotypy, and periods of stupor and incontinence. admits also cases with anxiety of an aimless detached kind, and some expres hypochondriacal ideas. Many of these would, according to our standards, be rega as examples of acute schizophrenic illness, and a complete recovery or, what is r likely, remission, is not taken as in any way vetoing the diagnosis of schizophren

This leads to the very difficult question as to what exactly constitutes a sch phrenic illness in a child. Probably Macfie Campbell's (1935) definition of sch phrenia is as wide as any in current use, and is the standard adopted in the sur already referred to of Kasanin and Kaufmann :—

> "The schizophrenic type of reaction seems to be characterized by diminished interes and adaptation to, the workaday world, increased interest in subjective creations fantasies which are emancipated from the control of ordinary, logical and scientific thou the frequent occurrence of hallucinations, odd and fragmentary behaviour and utteranc little adaptive value in relation to the present situation."

To this might be added, in particular, the tendency to fragmentation and ir ruption in the thinking processes, dereistic thinking, which presumably lies ben the odd utterances and behaviour, the tendency to stereotypy of thought, act and expression, the poverty of output compared with capacity, the emotional labi with inappropriate responses and poverty of affect, apathy and negativism, tendency to regression to simpler, more archaic levels, and not least the disorde metabolism.

Our clinical conception of schizophrenia in its developed state is built up ma from the observation of adults, many of whom have already regressed considera How far is the picture modified when it is considered in relation to the child, w intellectual, physical, and emotional growth is still proceeding, so that a regres to an infantile level is by no means a rare occurrence, or necessarily one of sin import ?

Piaget (1929), in the " Child's Conception of the World ", has demonstrated extent to which the normal thought processes, at an early age, recapitulate t primitive and archaic forms so often seen in schizophrenics. The drawings of chil will often show such features. Even on the perceptual plane the child may experi a form of fragmentation highly reminiscent of the adult schizophrenic. A re backward 4-year-old recently came into my clinic and looked out of the centre of three similar windows. He saw a cat on the lawn, and called out, " A puss He then ran to the second window, looked out again, saw the same cat from a sl different angle, and said, " Another pussy ! ". He then started off for the

window, paused, contemplated, and changed the subject quite abruptly. My impression was that at that moment there dawned on him some realization of the fact that his sensory experiences concerned the same object. But the effect, on the observer, both of the original separateness of the two experiences, and the repetitive behaviour, was of a great similarity to some examples of clearly schizophrenic behaviour. Here it was entirely due to a physiological immaturity.

All normal children live in their fantasies to a greater or lesser degree; they vividly hallucinate imaginary companions and terrifying and menacing objects in the dark. Most children have their stereotypies, their pet phrases, their rituals, their repeated forms of play. The delight in a story or nursery rhyme often seems centred in the senseless repetition of some neologism, and who has not seen a child excited to the point of instability with little apparent cause, or rendered pallid and apparently apathetic with anxiety? Negativism is a normal characteristic of the pre-school phase, and mutism not uncommonly occurs—as, for instance, in a child aged 3 seen recently, who following a return home after a short period of necessary hospitalization, was mute for three days. The regression, even of older children, in times of emotional disturbance, to infantile traits of enuresis, or fæcal incontinence, is no rare occurrence, and very probably is of little significance except as an indication of such disturbance. The path of maturation is a long one, and at any stage a regression of a purely temporary kind may occur. What is the characteristic which distinguishes such behaviour from similar examples which are at once seen as significant stages in the evolution of a serious psychosis? Is it the age at which such events occur (I have seen fæcal incontinence in an intelligent boy of 12, associated with theft from an unsympathetic stepmother), their temporary nature, their understandability (although the patients rarely understand their mechanism), or is it that they are merely seen as episodes in a life-history, which in other respects appears to be pursuing a normal course?

Wildermuth (1923), quoting Bleuler, compares and likens the schizophrenic and the child at play. Mayer-Gross (1921) has said:—

"The bearing of the schizophrenic is remarkably like that of someone at play. He enters into a special world, with its own laws, which are, however, not without some relation to reality. Nevertheless, at any moment reality may burst in and interrupt this process. Seen from outside this 'double life'—of the world of reality on the one hand, and the fantastic world on the other—closely resembles the behaviour of the playing child, who holds his fantasy carefully separated from the incursion of reality. He will regard as a spoil-sport anyone who tries to confuse the two kingdoms."

Bearing in mind, then, the frequency with which symptoms can be observed in children destined for normal development, which in others may persist, intensify, and herald a progressive deterioration, can any group be singled out in which the distinction is never for long in doubt?

Kraepelin (1913) noted and described a small group of cases in young children, in which during the first decade of life, a progressive dementia sets in, with features indistinguishable from those marking the schizophrenic dementias of older patients. He regarded it as a variety of schizophrenia, as indeed the essential schizophrenic deterioration setting in before the environmental factors would be held as contributory. Sante de Sanctis (1906) described as "dementia precocissima" a group of cases in young children, some with recovery but others going on to catatonic states resulting in more or less severe degrees of mental defect. Since the formative years in a child's emotional development are held to be those before 5 years of age, the contention that environmental factors may be disregarded in these early cases can no longer be supported. Nevertheless, some of them arise so dramatically in a situation which seems to bear no relation to the ensuing illness, that one is driven rather to the conviction that further investigation will reveal an organic and demonstrable cause. I refer, of course, to the group, possibly synonymous with Sante de

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Sanctis' dementia precocissima, described in 1908 by Theoder Heller (1909), as "dementia infantilis". It is unfortunately impossible to get access in London to Heller's original paper, but the work is referred to more recently by Zappert (1922) who, in collaboration with Heller, discussed some of the early cases, which were then under care in institutions, and added seven of his own. The remarkable feature in Heller's cases, and those of Zappert, is the uniformity of the symptoms. This, to my mind, is unlike most examples of schizophrenic illness, whose descriptions, while including features all bearing a certain sameness of quality, yet cover an enormously wide range of variety in actual manifestations. They are like different pictures by the same master, as varied as their subjects, but all marked with an instantly recognizable quality, rather than different pictures of the same object.

The characteristics of Heller's dementia infantilis are firstly the age of onset. All the cases described were of normal children, with uneventful development in infancy, who at the age of about 3 or 4 years first showed abnormal signs in an alteration of speech. There is a tendency to an abrupt cessation of learning, with lalling, echolalia, and verbigeration. Speech is rapidly (that is within a few months) reduced to the stereotyped repetition of a few sounds. Meanwhile the child's behaviour deteriorates, he becomes restless, and aimlessly overactive, he is destructive, progressively less able to feed himself or to occupy himself in any way except in aimless activity, and he becomes dirty in personal habits; as Zappert—quoting Heller—says, he "becomes an idiot in a few months".

The illness is remarkable in that, while this severe deterioration is in progress, the facial appearance of the child remains bright and alert, and the co-ordination of his movements is unaffected. There are no physical signs of organic disease, the sensorium remains intact and the cases have not been known to follow any physical illness. The prognosis is absolutely bad, and they remain under care in institutions for the mentally defective. Since nothing has appeared regarding this illness in the literature of this country, it can be surmised that some cases find their way into such institutions, without any particular note having been paid to the fact of the normal early development. They are, in any case, rare, but they deserve alignment with the schizophrenic group, since they furnish examples of a dementia in which stereotypy, mutism, and regression to infantile habits are reached, so that the end-points here and in the more usual schizophrenic illnesses are indistinguishable. Zappert inclines to regard them as schizophrenics, but believes that serious brain damage of an unknown kind occurs, and his view is that in time, enough will be known about schizophrenia to find such damage there also.

The picture of an organic dementia in childhood seems likely to pick out speech first, as the most recently acquired and least stabilized achievement, the habits of cleanliness inculcated with some difficulty next, and to leave relatively untouched the more primitive motor functions. The same clinical picture was observed here in a 5-year-old girl, now in the Fountain Hospital for low-grade defectives, whose dementing illness followed an acute tonsillitis complicated by middle-ear disease and acute nephritis. Exploration of the lateral sinus, and cerebral puncture, as well as repeated lumbar punctures, seemed to make it clear that there was no direct spread of infection to the cerebral tissues. When seen at the Maudsley Hospital after recovering from her acute illness, previous to which she had been a normally developed and active child, she was mute, except for undifferentiated noises, which seemed to register very crude expressions of pleasure and displeasure. She ran round the room, interfering with all the objects within her reach, biting or sucking many of them, and biting, sucking, and destroying her own clothes. She was incontinent and apparently quite unaware of her physical needs. She would no longer feed herself, but her grace and perfectly controlled motor co-ordination and her animated expression, were essentially those of a normal 5-year-old girl.

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of striking appearance and behaviour can be reviewed here in comparison with this group and as a contrast to one another.

Hilda J. was first seen in 1932, aged 10 years, 10 months. There is no neuropathic family history. She is an only child. She walked at the age of 1 year and 4 months, talked at the same time, and was an over-particular child, easily trained in clean habits. She first went to school when aged 5, and is said to have liked it. Her illness had an indefinite onset when she was about 7 years old. She became afraid of other children, had "nerve attacks", during which she cried and showed fear, at the same time becoming very obstinate and talking to herself. At these times she disregarded her surroundings, but would become more or less normal again and return to school. She learned to read, according to her infant-school mistress, but would never join in fully with class work and would never read aloud or recite. With good intelligence in some respects, she seemed much inhibited in others. She never mastered writing or spelling. Early in her school years her sight was questioned; she peered at objects and worked at practical material as if she could not see clearly.

Yet she went about unaided and never walked into projecting objects. She was examined at a local refraction hospital, at the Royal London Ophthalmic Hospital, and at a neurological hospital; no visual defect could be proved. She was, however, never fully co-operative in the examination, and no detailed records of visual fields were available.

She became progressively less able to learn and the periods of difficult behaviour occurred more frequently. When seen here her posture was very striking, fixed, rigid, somewhat stooping, with a dull, expressionless face but no tremor. She performed certain stereotyped movements and gestures, would repeatedly comb her hair or turn over an object aimlessly when holding it. She could obey simple commands but an intelligence test could not be given, owing to lack of co-operation. Her "writing" was a meaningless scribble, and she had a very odd way of looking sideways at objects. There were at this time no objective physical signs. Her progress was closely watched until 1935, over a period, that is, of three years, during which time there was a slow deterioration. A phasic element appeared during the second year of observation with short periods of irritability, sleeplessness, tears and anxiety, alternating with moods of excitement in which she chattered and laughed without cause. At the same time, she began to menstruate somewhat irregularly. The unstable periods bore no certain relation to the catamenia, though twice the over-activity coincided with a period. She then walked about quickly, clapped her hands, scribbled letters to a wireless-band leader, and said once that Jesus had talked to her. In August 1934—two years after her first attendance—a double extensor response had developed; four months later optic atrophy was queried in one eye, and it seemed possible that her visual difficulties might have been associated with a central scotoma, and only diminished peripheral vision. Nystagmus was noted as present about this time. Her behaviour continued to be bizarre, with periods of excited chattering of a disorganized kind, though without dysarthria. She became so difficult as to need certification and is at present in a mental hospital, where her disorder is regarded as an aberrant type of Schilder's disease. Her condition is progressing slowly. She is now completely blind, the blindness being apparently of the cortical type. The discs are pale but not atrophic. At intervals she has epileptiform seizures. These began three years ago and were then infrequent; now they occur about once a fortnight. There are no localizing signs, and the convulsions are generalized and not in any way unusual. Her mood shows no swing. The periods of apathy and weeping are replaced by a more or less constant diurnal chattering. The pyramidal signs have become more marked, though very slowly, and there is now some generalized spasticity. Her habits are faulty, probably in association with the profound dementia.

In contrast with this case is the following:—

Ruth A., aged 9, seen first in July 1936. She is an illegitimate child, her appearance like that of a half-caste. Her mother is a healthy Swede, married, and with other children. Her father was little known to the mother, but is said to be a healthy European. She attended with the foster-mother who has known her since birth. After a normal infancy she had walked at the age of 1 year, was easily trained in clean habits, and before the age of 2 had learned to talk, but, according to the foster-mother, she then appeared to lose her speech. She was always an anxious, dependent child, afraid of other children. She went to school when she was 5, but when aged 8, was transferred to a school for mental defectives. With only this evidence, and hearsay early history, it is impossible to state whether she has been a backward child from birth, or, what seems more likely, is an

example of an early regression, of unknown cause, which had already produced a degree of mental defect by the time she was 8 years old.

When seen here her appearance was striking. She smiled constantly in a secretive and inappropriate way. She was almost mute but understood simple commands, and answered, "Yes", "No". Her fine manipulations of toys and bricks were normal, but there was a marked degree of negativism. She actively withdrew her hands when asked to hold them out, and showed mannered movements, a peculiar gait, and some stereotypy in certain of her movements and gestures. She appeared afraid, but burst into laughter for no apparent reason. During a period of admission, she remained entirely passive and quiet and throughout no physical signs were found, except a doubtfully positive Meinicke reaction in the blood-serum, with completely negative cerebrospinal fluid. She then passed into a phase of excitement and destructiveness and was accepted into an institution for the care of defectives. Her appearance now is strongly suggestive of a schizophrenia. She maintains a peculiar posture and makes repeated meaningless stereotyped movements. There is some perseveration shown in drawings; mainly she is unoccupied. She replies when questions are persisted in—with much scatter and a continuance of inappropriate laughter. The latest report confirms the absence of physical signs and continues:—

". . . (?) catatonic psychosis superimposed on defect. The history suggests the possibility of a pure psychotic origin."

For the conception of catatonic psychoses in mental defect the work of Earl (1934) is important in distinguishing clinical types. Again it is likely that the merging ground between the case with organic signs and obvious deterioration (the ament with superimposed schizophrenia) and the true primary psychotic will inevitably attain a common level of dementia, so that if, when they are seen first, they have reached that point, the different paths leading to it can only be inferred from the history.

Among the 35 cases here considered, a group can be singled out in which the schizophrenic illness is superimposed on a defect known to have existed from an early age. In four such cases there is a straightforward history of backwardness in school, and mental testing done with a fair amount of co-operation from the child gave intelligence quotients of 78, 66, 67, and 72.

In only one of these cases, a boy aged 15, with an I.Q. of 72, was there a clear history of backwardness in early development, and late acquirement of walking, talking, habit training, and so on. He was a timid, asthenic youth, with a small head and badly bitten nails. His psychotic condition had had no acute onset, but consisted in a gradual withdrawal of interest in his surroundings, with marked emotional instability so that he is liable to outbursts of temper on trivial provocation. It would probably be more correct to regard him as an emotionally unstable and immature ament.

Two others in this series, both girls, show results on an intelligence test which are of some interest.

Lily K., seen in 1935, aged 15, came with a history of increasingly irresponsible behaviour, truanting, and wandering at night. In addition she showed restless movements, and was regarded by her mother as quite unemployable.

An intelligence test, using Burt revision of Binet gave an I.Q. of 91 with much scatter; her reading and verbal ability were good, her arithmetic below the nine-year level. Her performance ability was so poor, that scored on a series of performance tests alone, her I.Q. was only 64. Her Rorschach profile was very interesting, with a large amount of confabulatory responses, and many oppositional responses. These findings were regarded as strongly suggestive of schizophrenia and against a diagnosis of feeblemindedness, although the latter was suggested by her childish irresponsibility and sexual precocity, combined with an entire lack of judgment.

Earl's work on test profiles (1937) points out the significance of test results with this distribution. In the average stable moron, the performance ability greatly exceeds that shown in a test involving a language scale (such as the Binet). In the unstable moron there is a great falling-off on the practical side, and this is

even more marked in the unstable or psychotic adult where the onset of the illness post-dates considerably the acquisition and stabilization of verbal ability. Where, on testing, the verbal ability is extremely low, compared with the practical—which was well shown in tests on Ruth A., the 9-year-old catatonic—it suggests that the onset of the illness may have been very early indeed. It will be remembered that in her case she is said to have acquired speech and then lost it.

Maud P., seen in May 1937, aged 14, was untestable except on performance tests. Here the results showed an extreme variation, for example, mental ages varying from 6 years on Koh's blocks to 13 years on Passalong. She has been a patient in a mental hospital since June 1937, and is there regarded as an unstable defective, with periods of apathy alternating with impulsive behaviour. Her school record indicates steady work, with some backwardness, but she was not thought to be backward in her early development. Clinically this case is a good illustration of the no-man's land which exists between the clear-cut picture of amentia and psychosis.

In considering whether or not mental retardation is present in cases seen for the first time when some deterioration has already taken place, some stress is naturally laid on the developmental stages in the early history. This can be confusing and misleading, if only because an exact record is rarely kept, and standards vary widely. In this connection a valuable addition to the literature is the diary kept by the intelligent mother (a school-teacher) of a boy who developed a psychosis at an early age.[1] It is an intimate record of the development and behaviour of the boy—a first child—from birth until the age of 4 years and 9 months. Tramer regards the diagnosis as certainly an early schizophrenia, running a prolonged course, with partial remissions, and lacking the essential features of a dementia infantilis. The development is analysed with special reference to intelligence, affect, and motor behaviour.

The child's capacity to notice and respond and, particularly, his speech, were earlier than the average. There was a lag in motor development, but as this was also associated with delayed teething, it would seem as if physical factors might have a bearing. In any case, the retardation was not serious, and he was walking at the age of 18 months, but a certain caution, and unwillingness to adventure, marked his motor development from quite early days. For instance, although when 1 year and 9 months old, he would run rapidly from one room to another, he was still unwilling to seat himself on the ground and pick himself up again. He avoided such situations in his play, or looked for help from his mother. In his affective development, the greatest and earliest departures from normality were shown. He was somewhat readily upset by new people, and by occasions such as a journey; excitement so aroused usually produced sleeplessness which became a marked symptom later in the illness, so that it seemed as if this pattern, or habit, of registering a reaction to some disturbance was early laid down.

In our series, sleeplessness was not a prominent feature except during or at the onset of an acute attack of illness. But in two cases of an insidious schizophrenic illness, with bizarre ideas and a wealth of fantasy, both children had slept badly as babies, and had always been restless and easily disturbed throughout childhood.

From the end of the second year onwards, the diary indicates a progressive falling-off. The boy's capacity for learning and adapting reaches a standstill. His play shows a marked stereotypy; he disregards toys, playing only with one animal which he uses for everything, and later with a sofa cushion. He becomes unable to meet other children, ignores their presence, or actively runs away from them. When later (aged 3 years and 9 months) he attended a kindergarten and was coaxed into a group, he was quite passive on the rare occasions when he let himself be included in a game. He came to speak hardly at all, but occasionally would bring out a perfectly normal sentence. During the third year, phases of greater activity and liveliness, though still with little directive control, alternated with periods of extreme apathy and anxiety in any new situation, even a strange room. His speech deteriorated in articulation, apart from mutism associated with negativism, and he

[1] The diary is published in full with accompanying observations by Tramer (1934-6).

often uttered meaningless shrieks and cries. His final state was a profound reached between the ages of 6 and 7, and at 12 he remains a case in institut But a remarkable point is to be noted that at the age of 12 a double extensor re obtained. This was regarded by Tramer as an indication of a complete psychological and now physiological, to the infantile state. All other signs in nervous system were lacking, and although the boy's behaviour included only th forms of repetitive movement, he could still walk and run, and all other refl normal and equal.

One can only say that such a finding is unusual in a schizophrenic dem

The value of this work lies in the unedited observations of the mother. viewing parents of children with serious mental disorder, remarks are so oft by, "Now I come to look back, I realize so and so", suggesting that in the fully developed disturbance a new interpretation is put on events which a passed without comment. Until well on in the third year, this mother had that the small points she noted were stages in the development of an irre pathological process. Since, however, this problem of the psychotic child such a pressing one, it seemed worth while to study our records very particula regard firstly to the age of onset of symptoms, and secondly to the previous pers In such small numbers it is difficult to group since there is much overlapping. seemed clear that certain phases of stress occur.

Of the 35 cases, the onset of definite symptoms, for which advice was sough but nine, lay between the ages of 13 and 15. These nine cases were of earlie Ruth A., already described, showed symptoms in early childhood. Heather showed a definite reaction of withdrawal and hostility following the unexpect of a much-loved father, and has since made a good adjustment. Basil L. attacks of violent excitement with hallucinosis and a history suggestive of n It seemed likely that these might prove to be major hysteria, and pending period of observation the diagnosis is left open. But he is a capricious and youngster, never able to make friends of his own age, somewhat precocious an for teasing. William B. ($12\frac{1}{2}$) had an almost paranoid reaction against his h reasons which were never made clear, since he refused to discuss it. He, made a good adjustment. These three might perhaps be regarded as h least a considerable reactive element.

Of the remaining five, three are in boys—aged 10, 12, and $12\frac{1}{2}$, respecti with a long history of shy, seclusive personality, with poor social adaptat much teasing at school. The fourth is in a girl, Mina S.; and is very wel to me.

A fully developed catatonic schizophrenia was observed when she was aged 12 y 6 months and there was a previous history dating back at least two years.

Unfortunately her mother kept no diaries, but she has discussed very fully wit early years. M. was a phenomenally good child with normal developmental atte Somewhat aloof, she was very good at playing by herself.

"Not a tomboy" (I quote from the mother). "We used to call her a quaint l She was dainty and fastidious, and devoted to her mother and father, but at sc always teased because she minded it, and couldn't stick up for herself." A sense and severe difficulty in school was noted at 10, and she ceased to learn. Attend special (M.D.) school was recommended but the parents paid for private schooli became gradually quieter but was always a little nervous of school, and of other and finally she ceased to attend. During this time she developed outbursts of sore upset, especially if criticized adversely. She began to menstruate so early ($11\frac{1}{2}$) instruction on the subject had been given to her, but she made no comment nor di her mother, who only discovered the fact by the stained bed-clothes. The child explanations quite passively, was fastidiously clean, and remained secretive al function; although she was not regarded as ill enough for advice to be sought until 12 years and 8 months old this suggests that already some emotional apathy, repression, had set in. She rapidly developed into a catatonic state, negativistic and

in his surroundings, and his expression was at these times one of tragic despair. His self-reproachfulness related to guilt over sexual curiosity. Periods of over-activity were, however, more frequent. He would then talk to excess. His speech was clear and coherent; he showed flight of ideas and sometimes rhyming and punning. His behaviour was extremely restless and mischievous and showed a remarkable eroticism, with particular interest in his mother's body. His expression was lively, and his movements quick, active, and supple. The intervening periods of normal balance showed traces both of the eroticism and of the tearful self-reproachfulness.

That these two brothers should tend to react in this way might almost have been predicted from their early history, which was very fully given by the mother. The elder (catatonic) was a fat and placid baby, intelligent but somewhat inert. He grew to be an abnormally sensitive child, who could never take a beating, and could at any time be teased into tears by his father. His attachments to people were never very obvious, he remained reserved on the subject of his father's death, and the only evidence of strain was shown in his tendency to extremely obvious boasting in matters where he felt his insecurity keenly. This aroused much comment, for instance during his first term at school. The younger boy was from birth an over-active and demanding child, who gave ready expression to all his moods, both of pleasure and displeasure. He was cheeky and friendly, his sociability overriding all ordinary barriers. He showed a marked preference for friendships with boys, but was extremely demonstrative in his affection for his mother, often biting her cheek or rubbing against her breasts.

The heredity and environmental stress in these boys has been almost identical, but for a time their psychoses were barely recognizable as instances of the same disease. Now the elder is in a period of intermission, while the younger varies between a state of disordered excitement and a pronounced degree of dullness and apathy with occasional outbursts of agitation. His progressive lack of interest is manifest even during periods of intermission.

In so far as the findings can be summarized, out of the 35 cases considered, 12 remain ill and unfit to work, five at home and seven in mental hospitals; 14 cases have improved or are having good remissions, three of these 14 have had long periods of hospitalization, and only one of them improved after treatment with cardiazol; nine remain untraced. Since these 35 are selected out of a total number of juvenile discharges over the period considered, of 1,265, the great rarity of psychoses in children is demonstrated, the proportion being about 2·8%.

This is obviously no more than a tentative survey of what becomes a larger and more intricate problem at each stage of the inquiry. The question of heredity has been left untouched as also that of treatment, either prophylactic or of the acute attack. The omissions do but indicate the tremendous field here for observation and research.

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REFERENCES

Burger-Prinz (1935), *Nervenarzt*, **8** (II), 617.
Campbell, C. Macfie (1935), "Destiny and Disease in Mental Disorders", London.
Earl, C. J. C. (1934) *Brit. J. M. Psychol.*, **14**, 230.
Id. (1937), Personal Communication.
Heller, T. (1909), *Ztschr. f. d. Erforsch. u. Beh. d. Jugendl. Schwachsinns*, **2**, 17.
Homburger, A. (1926), "Psychopathologie des Kindesalters", Berlin.
Kanner, L. (1935), "Child Psychiatry", U.S.A.
Kasanin, J., and Kaufmann, M. (1929-30), *Am. J. Psychiat.*, **9**, 307.
Kasanin, J. (1931), *Am. J. Psychiat.*, **10**, 879.
Kraepelin, E. (1913), "Psychiatrie", Leipzig.
Mayer-Gross, W. (1921), *Ztschr. f. d. ges Neurol. u. Psychiat.*, **69**, 332.
Piaget, J. (1929), "Child's Conception of the World", London.
De Sanctis, S. (1906), *Riv. Sper. di Freniat.*, **32**, 141.
Trimble, M. (1934-5), *Ztschr. f. Kinderpsychiat.*, p. 91 *et seq.*
Id. (1935-6), *Ibid.*, p. 17, *et seq.*
Wildermuth, H. (1923), *Ztschr. f. d. ges. Neurol. u. Psychiat.*, **86**, 166.
Zappert, J. (1922), *Monatschr. f. Kinderh.*, **22**, 389.
Ziehen, T. (1917), "Die Geisteskrankheiten des Kindesalters", Berlin.