PROGNOSIS OF THE DEPRESSIONS OF LATER LIFE.

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The following paper represents an attempt to determine more precise prognostic criteria in the large group of the depressions of later life, to find if possible some other guiding lines than the relatively rule-of-thumb principles which obtain, freed as far as possible from debatable preconceptions as to the existence of an "involutional melancholia" or other specific diagnostic label. Obviously in such a group the influence of the menopause and involution periods might be expected to be prominent.

Fifty cases of women over forty admitted to the Maudsley Hospital between 1928–31 have been selected at random, i.e., the first fifty which came to hand, analysed, and the outcome of the psychosis determined as far as possible. Each case was seen by a competent psychiatrist and diagnosed as one of depression. Cases showing definite deterioration, i.e., obvious signs of dementia, were excluded.

The average age of the group was 51·5 years, the youngest 41, the oldest 74.

The first problem in a study of this kind is that of criteria of recovery. These are perhaps unusually difficult to set up in the case of women, for a certain degree of disability in managing household affairs is often overlooked by the family, a disability which would, however, prevent the individual from earning her living in most forms of employment. The results here fell, as might be expected, into three groups: fully recovered, i.e., showing no symptoms at all, a complete restitution to the status quo; partially recovered, i.e., still with some symptoms or disability; and unrecovered, i.e., as ill as ever, often worse, and in a mental hospital. There was a small number of cases of deaths, suicide, not traced, etc.

The difficulty in evaluation of the outcome of the illness lies in the second group. One, for instance, had fairly gross delusions still, but carried on with her work as a charwoman. Two others still showed certain mild symptoms, e.g., slight hypochondriacal preoccupation, but got along well with their families, and to the superficial observer seemed quite well. It was decided, however, that the purpose of the present paper would best be served by putting all those entirely free from symptoms in one group and placing all the others in the unrecovered group. The results were then as follows: Recovered, 17; unrecovered, 26 (partially recovered, 11); 3 died, 1 committed suicide, and

of 3 no details subsequent to discharge were obtainable. The two groups were then compared with reference to heredity, previous personality, " neuropathic " traits, school record, sexual life, precipitating factor, previous attacks, age, race and clinical features.

Any study of the prognosis of such depressions must begin with a consideration of Hoch and MacCurdy's paper, published in 1922, which constitutes a landmark in the literature.

Although so well known it will be convenient to summarize their conclusions. They examined and followed up 67 cases and determined the outcome in all but one. They found " that patients with involution melancholia recover unless they show as dominant symptoms: marked insufficiency of affect, peevish or auto-erotic behaviour, or ridiculous hypochondriacal delusions, which usually are concerned with the alimentary tract. These prognostically bad symptoms may be present for a short phase of the psychosis in women at the menopause without prejudicing the outlook for recovery. All patients who eventually recover show some improvement within four years after the onset. The others run a chronic course or die unimproved ". It must be stressed, of course, that the present paper is not concerned with " involution melancholia ", but with a group of depressions in women over 40 without reference to their precise place in a nosological scheme. Moreover, as prognosis is the subject of investigation here, no consideration of pathology, symptomatology, etc., will be raised except in so far as these are relevant to the main theme. Exhaustive discussions on these disorders as a whole will be found elsewhere, e.g., Jacobi. It is interesting, however, that Hoch and MacCurdy's paper is among the very few which have attempted to deal with prognosis in these depressions except along the most general lines.

All observers are agreed as to the comparatively long duration of these depressions and their relatively unfavourable outcome. Bleuler, for instance, says: " These forms have in great part a much more protracted course. They grow very slowly, often for one or two years, readily remain at their height for several years, and again require a long time to decline ".

The average total duration of Hoch and MacCurdy's cases was twenty and a half months; 43 of their 67 cases recovered. Kraepelin found that 32% of his cases of involution melancholia were chronic and 19% died within two years after onset. Noyes gives a 40% recovery. Jacobi speaks of the protracted course and unfavourable outcome, but gives no figures. Strecker and Ebaugh give the recovery-rate as from 23%–40%. Strecker, Appel *et al.*, in an article on the prognosis of manic-depressive psychosis, speaking of the age of onset of the first attack observe that " among the unrecovered types the greatest frequency was observed to occur between the ages of 40 and 50 ", and say elsewhere in the same article, " it will be noted that in these [illnesses] developing before 40 the prognosis is more favourable ". Halberstadt regards the prognosis as generally unfavourable. Gaupp, it will be remembered, observed

a case which lasted for eight years, and Bumke one of seven years, whilst Olivier and Teulière reported a case which lasted over thirteen years and ended in complete recovery.

These observations from the literature having been given, the author's own findings may now be considered, with respect to the duration of the psychosis.

The exact duration of a psychosis is clearly, of course, a very difficult matter to decide, and we can only deal in approximations. The approximate average duration from the onset of the recovered cases was fourteen months. The shortest duration was five months in a woman of 41, the next shortest five and a half months in a woman of 68, which is of interest in view of the role often ascribed to age in assessing prognosis. This will be dealt with separately below. The longest duration was three and a half years in a woman of 53. So far then Hoch and MacCurdy's contention that if recovery will take place, it will do so within four years, is at least not refuted by the present material.

The present paper must be regarded as a preliminary communication only, and the time is almost ripe for a re-examination of the material. With regard to the unrecovered group, one case had already lasted ten years, another nine and a half, another seven and a half, and so on. A further katamnestic study may reveal that some of these cases will have cleared up and the figures for the whole group may turn out very different from these here given. This does not, however, minimize the value of the present study for, from the practical point of view of relatives, employers and society generally, it is the probable restoration to health or working capacity within a comparatively short time, not more than say two years, that is of interest.

The consideration of the details of these cases can now be proceeded with.

Family History.

The family histories of the two groups will first be briefly considered. The inquiries were directed to parents and siblings, and in many instances included grandparents as well. The results were obtained in the course of routine investigation, and make no pretence to satisfy in any degree the requirements of modern genetics.

The family history was reported completely negative in respect of mental disorder in 19 cases out of the total series. Ten of these belonged to the recovered group.

Ten cases were negative in respect of outspoken psychosis, but showed evidence of psychopathic inheritance made up as follows, e.g., alcoholism 6 (father, mother or grandfather in 5, brother 1); "nervy" 2 (mother in each case); in one case a sister died of convulsions; in one other all the family were described as "irritable and restless". Of these ten cases 3 were in the recovered group.

A family history of *psychosis* was obtained in 21 of the total series. Seventeen of these were in the unrecovered group. It was unfortunately impossible to procure details of the relatives' psychosis in 9 of the cases in this group; in the remaining 8 the following were found:

1. Two brothers depressed, one alcoholic, paternal uncles alcoholic, mother had psychosis, nature unknown.
2. Twin sisters—depressed, with ideas of poisoning—in mental hospital some years. One sister alcoholic.
3. Mother with ? agitated depression. One sister depressed for some years and recovered. One sister depressed. One brother committed suicide. One child of patient's diagnosed as mongoloid. Two brothers alcoholic.
4. One brother depressed and in mental hospital two years. One brother depressed, in mental hospital one year. One brother in mental hospital (no details). Mother died in mental hospital (no details). Two sisters excitable and "nervous".
5. Father had senile depression.
6. One sister depressed for over six months. Maternal grandfather died mental hospital (no details). Mother's brother and second cousin died insane (no details). Mother "nervous".
7. Mother occasionally melancholy and was in an institution for two years. One daughter developed psychosis, diagnosed as "mania". One uncle had "mental trouble" (no details).
8. One sister had obvious schizophrenic illness. Ill for years.

Of the recovered group:

1. One sister attended Maudsley as out-patient for depression.
2. Mother at menopause became depressed (no details).
3. Father had attacks of depression and was finally in hospital.
4. Mother had depressive illness, no details. Father alcoholic.

The two groups with psychopathic inheritance are compared below.

Unrecovered (7 cases):

1. One brother heavily alcoholic. One sister had severe obsessional state. One sister very "nervous" and wanted to die. (? How far depressed, i.e., psychotic, but no details.)
2. All "irritable and restless".
3. Mother alcoholic and had ? paranoid ideas. One brother and one sister alcoholic and gloomy. This brother a shiftless psychopath. All siblings highly strung.
4. Father alcoholic.
5. Paternal grandfather alcoholic.
6. Mother said to be "nervy".
7. Father excitable and formerly alcoholic. Some other doubtful history of alcoholism in family. Mother also stated to have been alcoholic, as also were paternal grandparents.

The recovered group showed:

1. One sister died from "convulsions".
2. Father alcoholic.
3. Mother said to be "nervous".

To draw any far-reaching conclusions from such comparatively inexact and defective material would be unjustifiable, yet the contrast between the two series is noteworthy and even striking.

Strecker, Appel *et al.*, in their article already mentioned, report that 18% of the patients had one or more psychotic parents, but when this 18% was analysed they found that only 8% of the recovered group had psychotic parents, while 28% of the non-recovered group were so afflicted. " 14% of the recovered cases had parents who were psychoneurotic, eccentric or abnormal without being classified as psychotic. In the unrecovered group this rose to 26% They go on to say that 16 recovered cases had absolutely negative heredity so far as was ascertainable Ten of the unrecovered cases fell under this classification." " In reviewing these figures it is obvious that there is a distinctly greater hereditary taint in the unrecovered group—that this taint is predominantly with psychosis."

In a broad way these results agree with those of the present material. The mixed nature of the heredity in many instances is also a noteworthy feature. This has been noted by others, e.g., Fünfgeld quotes Hoffmann and Berze, who find schizophrenia in many of the families under consideration and Medow, who found suicides and hypochondriacal psychopaths with a tendency to phases in which their symptoms were more prominent. These were given to fault-finding, and in one of his cases a paranoid involutional illness was diagnosed. Kahn reported a case with unfavourable outcome which he referred to the presence of a schizophrenic sister of the patient's; this might also be a factor in Case 8 above which did not recover. Fünfgeld goes on to point out the eminent desirability of an unprejudiced study of the heredity of these illnesses and adds that, as Kleist's work suggests, the hereditary relationships will probably be found to be of a complex kind. In the literature, however, little attention would appear to have been given to heredity from a prognostic standpoint. The American results, together with those of the present writer suggest, however, that the extent of the hereditary tendency is probably a factor of definite value in assessing the prognosis of these cases.

Personality.

In assessing personality, special difficulties both in investigation and evaluation of the results beset the path. In regard to the former, the poor intelligence and in some cases illiteracy of the informant rendered the facts difficult of access, not to mention the conflicting statements often received from even near relatives, each perhaps containing a grain of truth. The evaluation of the results, moreover, is difficult without superficiality and undue rigidity on the one hand and on the other meaningless detail. Moreover, a certain amount of overlapping is unavoidable. Certain broad data, however, emerge.

1. With regard to the prevailing temperament, 27 of the total series were described as " cheerful ", and 3 more as of " calm ", " even mood ", 30 in

all, of which 11 were in the " recovered " group. Fifteen in all were described as " pessimistic ", of which 4 were in the " recovered " group. Those described as " up and down ", " unstable ", formed 19 of the total, 7 in the " recovered " group. (This group included members of the first two groups, but in whom the prevailing mood was liable to be upset easily.)

So-called anxious personalities were found in 28 cases, 10 in the " recovered " group. (This includes the over-conscientious and worrying types.) " Pessimistic " and " anxious " formed 10 of the total, 3 in the " recovered " group.

2. A further grouping of personalities was then made, showing features usually regarded as " paranoid ", i.e., including both querulous and sensitive traits. There were 22 cases in all. The qualities grouped under this head were solitariness, shyness, timidity, " sensitiveness ", jealousy, touchiness, unforgivingness, envy, secretiveness, suspiciousness, tendency to brood, etc. Five of such personalities were found in the recovered group, 17 in the unrecovered. In the recovered group 3 of these showed paranoid features also in the psychosis. Of the unrecovered group 7 showed paranoid features in the psychosis.

In one of them the depression cleared up, leaving behind a florid paraphrenic state, in another the depression cleared away, but left a paranoid state or more correctly, attitude, not associated with hallucinations and permitting the patient to carry on with her work. A third has improved a very great deal, but is still inclined to worry over trifles and become sleepless. She leads, outwardly at least, a normal life, but can hardly be said to have made a complete recovery.

3. The third group of personalities belongs to the obsessional series, and under this heading have been included the following traits : methodical habits, caution, money scruples, parsimony, over-cleanliness, personal and external. Religious interests and cults have also been included under this head.

Eight personalities showing these traits occurred in the " recovered " group. These showed obsessional features in the psychosis in 4 cases. Two parsimonious and overcleanly women showed poverty ideas and fears of dirt and contamination, one of whom, and also two others showed religious delusions. In one of these, religious interests had formed a feature of the previous personality. One of the cases mentioned showed other obsessional features in the illness.

In the unrecovered group 16 cases showed such pre-psychotic traits. These showed obsessional features in the psychosis in 8 cases, religious interests appearing in ideas that God had left her, parsimony as poverty ideas, etc.

4. A fourth group of personalities included those in whom bodily pre-occupation, hypochondriasis, health interests, food fads and the like were manifest.

In the recovered group 4 such cases were found, and in all 4 bowel ideas appeared in the psychosis.

In the unrecovered 7 such cases occurred, in 4 of them bowel ideas and hypochondriasis came to expression in the illness.

In most of the cases where this relationship was observed it seemed to be a case of morbid intensification of the previous personality.

5. Stress is usually laid on the so-called "good" pre-psychotic personality, i.e., one in which efficiency, optimism, self-reliance, good understanding of and adaptability to others, etc., are prominent features. An effort is made therefore to group personalities according to these attributes as far as possible, and compare the incidence in the two groups.

Only 5 personalities of the kind occurred in the whole series, 2 recovered, 3 unrecovered. In all the others making an impression of cheerfulness, efficiency, etc., the so-called "good" features were discounted by others.

TABLE I.

Temperament.	Recovered.	Unrecovered.	Total.
Personality I.			
"Cheerful" } "Calm", "even" }	11	19	27 } 30 (3)
Pessimistic	4	11	15
"Unstable", "up and down"	7	12	19
"Anxious" (over-conscientious and worrying	10	18	28
Pessimistic and anxious	3	7	10
Personality II.			
Paranoid traits, including both sensitive and querulous, e.g., solitariness, shyness, timidity, "sensitiveness", jealousy, touchiness, secretiveness, unforgivingness, envy, suspiciousness, tendency to brood, etc.	5	17	22
Personality III.			
Obsessional traits, e.g., methodical habits, caution, money scruples, parsimony, over-cleanliness personal and external, also including religious interests and cults	8	16	24
Personality IV.			
Hypochondriacal traits, e.g., health interests, bodily pre-occupation, food fads, etc.	4	7	11
Personality V.			
So-called "good" personalities, e.g., optimistic, self-reliant, efficient, good understanding of and adaptability to others, etc.	2	3	5

Strecker, Appel *et al.*, in the work already cited, made similar investigations into pre-psychotic personality and divided their results into the two groups recovered and unrecovered as here. Unfortunately their conclusions suffer from an obvious psycho-analytic bias, to the consequent detriment of objective, psychiatric fact. Their personality sub-divisions differ somewhat from those of the author, but they adopt a broad grouping in the same way. They show a preponderance of "cycloid" personalities in both series, with a relative preponderance of "schizoid" in the recovered group. The "paranoid" group was approximately the same in each.

Jacobi remarks that in the character development of these cases all variations from simple mood swings, and groundless depressive moods to actual phasic psychotic depressions occasionally alternating with manic phases may be found. He goes on to say that in practically all cases there exists a predisposition to depressive moods or mood swings. He remarks that where such phenomena in the pre-psychotic personality are not reported, it is unlikely to have been negative in this respect; more probably the history was defective. He does not, however, go into the question of the prognostic value, if any, of the pre-psychotic personality. Medow notes that most of his cases of involutional depression showed anxious and worrying personalities and also sad and hypochondriacal personalities in the families.

Turning now to the writer's own results, a little more than half the unrecovered group showed paranoid personality traits, whilst they were noticed in a little less than one-third of the recovered group. The predominance therefore is slightly on the side of the unrecovered. Obviously, the existence of a pre-psychotic paranoid personality cannot in itself be accorded any great significance in assessing prognosis, but in combination with other factors it might turn the scale.

The previous temperament is perhaps of even less assistance. There is a preponderance of "anxious" and pessimistic personalities in the whole series which is, as already seen, in agreement with Jacobi and with numerous others, e.g., Medow quoted by Halberstadt.

When the obsessional features are considered, the findings from the present material seem on the whole of little significance, the ratio is approximately the same in each group. Similarly, with those showing somatic pre-occupation, nothing prognostically significant emerges. It is noteworthy that the alert, cheerful personality is in a minority in the whole series. It is difficult then to see any conspicuous help in prognosis from the pre-psychotic personality in the results of the present case material, or in the relations between previous personality and its expression or development in the psychosis.

After the analysis of the personality, the so-called *neuropathic traits*, i.e., nail-biting, enuresis, somnambulism, etc., may be considered and the incidence in the two groups compared.

Such traits occurred in 20 cases of the total, 7 of which were in the recovered group.

One was described as a nervy child, one was afraid of thunderstorms and had enuresis till 16, one was always afraid of burglars and thunderstorms. Two had headaches in childhood, one was nervous as a child and disliked being alone, one was always a little " nervy ".

Precisely similar traits were found in the other group in the proportion already stated. It would seem then that these features offer no material guide and need not be discussed further.

School Record.

Turning to the school record, out of 50 cases, only 7 had attended a high school (6 in the unrecovered group), of 5 others no details as to the type of school were available (2 unrecovered), 2 others were illiterate (both unrecovered), and the remaining 36 had attended an elementary school. Of these 13 had reached Standard VII or *ex*-VII, and 2 others had reached " Standard VI or VII ". Of this number 3 recovered. Six reached Standard VI, or " V or VI " (3 in each group). Six reached Standard V or " IV or V " (4 unrecovered). Three reached Standard IV (2 unrecovered).

As the grading by standards differs in different schools, there is little point in using this for comparison. It does show, however, how varied was the intellectual endowment of the series under consideration. It will therefore be more profitable to consider the actual record, and here differences between elementary and higher education will be disregarded. Eleven were reported as having done really well to brilliant. Of this number 8 were in the unrecovered group. Twenty-two were described as having done fairly well, quite well, average, etc., and of this number 15 were in the unrecovered group. The remainder 11 did poorly, below average, etc. Of this number 5 were unrecovered.

From these results, then, it is impossible to draw any conclusions of prognostic value. So far as they go, however, they suggest that those with poorer intellectual endowment have done rather better than the others.

Sexual Life.

The question of the influence of the menopause, if any, may next be considered.

The menopause was taken as the period from the first onset of irregularity of menstruation up to its complete cessation, whether natural or artificially produced.

This definition of the menopause has been taken as it seems on careful consideration the only one of any practical value. If such a point is taken, it will probably include a number of cases in which the endocrine and other

changes of the climacteric are actually past, as well as those cases where menstruation stops suddenly, yet the vegetative and endocrine changes continue. To adopt Halban's definition of the menopause as the period of the last ovulation and to speak of the preceding and succeeding periods as pre- and post-climacteric respectively, is obviously of little value, as Jacobi points out. In such a vaguely-defined period of life—and clinically it is often difficult for years before and years after the cessation of menstruation to decide to what extent certain symptoms are referable to the menopause, if at all—such a fixed point, even if somewhat arbitrarily chosen, becomes necessary.

The menopause was either in progress or past in 37 cases of the total.

Still in progress on admission in 5 cases, 2 of which were in the recovered group.

Of the remainder (32) 11 were in the recovered group. Of this number 1 case had had a psychosis at the menopause, a depression which lasted a few months and then cleared up.

In the remainder (10) the menopause had been uneventful.

In the 21 cases in the unrecovered group the menopause had been uneventful in 12 cases. In 2 other cases no data were available, but in neither case had it been attended by psychotic symptoms or by any objective mental disorder.

Of the remaining 7 cases, in 1 the present illness had begun three years previously about the time the periods stopped completely, at which time she also had a febrile illness diagnosed as influenza. The suicide of a neighbour about this time was said to have preyed on her mind a great deal.

In the second, the present illness also commenced about the time of her menopause two years previously, associated with certain psychogenic factors.

In the third, the present illness was associated with the menopause and the death of a child occurring about the same time seven months previously.

In the fourth, the menopause was associated without any very clear relationship to the development of the present illness. A series of "attacks" had begun three years before the menopause and lasted beyond it to the present illness which was at first a depression with paranoid features clearing up, leaving a full-blown paraphrenic state. It was, however, difficult to regard the menopause as altogether without relationship.

The fifth was depressed at her menopause at 39, and believed she was pregnant. She cleared up.

In the sixth, the present illness commenced in relation to a menopause artificially produced by X-ray eighteen months before.

In the last, the present illness began in association with the menopause, associated also with the death of a sister which upset her a great deal.

Of the 13 cases in which the menopause had not occurred, 4 recovered.

In the psychoses of later life much is often made of psychogenic factors, e.g., dissatisfaction, frustration, unfulfilled desires, failures and the gradually

receding and finally disappearing prospect of success, notably in the sexual sphere, e.g., the single state, childlessness, and so on.

In the total series 32 were married, 12 of whom recovered.

The influence of childlessness may then be considered. Of the 32 married patients only 4 had no children; one was a timid, anxious woman who was afraid of childbirth, another had a still-birth—would have liked a child, and later adopted a daughter of whom she was very fond. A third had no children owing to a uterine displacement, and the last had a miscarriage and no other pregnancies, and from the history evidently desired to avoid pregnancy. Of these 4, 2 recovered.

A glance may be made at the *menstrual history* for the sake of completeness.

The periods were or had been regular in 36 cases, 12 in the recovered group.

Mental changes, depression and sometimes irritability were noted at the period in 11 cases—4 in the recovered group. In these 11 cases the menopause had occurred or was in progress in 9. Of the 9 it had been uneventful in 3. In the remainder it had been associated with mental illness or was regarded as an ætiological factor in the present one. Of these 6, 2 recovered.

Dysmenorrhœa or other physical accompaniments occurred in 18 cases, 6 in the recovered group.

The comparatively small number of cases showing signs of irritability or other psychic disturbance at the periods is of interest in view of Bumke's statement that in climacteric depressions the history nearly always shows that the patient formerly had nervous troubles of some sort, e.g., at menstruation.

From a survey of the data in respect of the menopause nothing emerges that would be materially helpful in forming a prognosis. Certainly the patient's behaviour at the menopause where that is past, i.e., the presence or absence of mental symptoms, is no guide. In only one of the recovered group had there been any such, and the patient recovered from this. It is noteworthy that in only one case (the case of artificial menopause) of the 7 mentioned in the unrecovered group could the menopause be regarded as a sufficient ætiological factor in itself, in agreement with present-day views, e.g., Medow, Seelert, etc., and that other factors, psychogenic, infective, etc., have also to be reckoned with.

Similarly no prognostic significance can be attached to the influence of marriage or childlessness in themselves, which is in agreement with Strecker and his associates, who state: "The marital state statistically seemed to be of no prognostic value". The question of psychogenic factors in the sexual life must now be examined in a little more detail.

It is, of course, extremely difficult to assess such factors as frustration, dissatisfaction in the sexual life and sexual discord in general, owing to the extreme reticence of most people in sexual matters and the tendency, often unjustified, to assume such discord merely because of the existence of circumstances which would make the observer unhappy. It is true the average

psychiatrist of experience can often assess the situation quite accurately by reading between the lines, but here it is so often an impression, and what one wants above all are facts, especially in view of the probably exaggerated significance attached to the sexual life as a result of the doctrines of certain schools. The facts more often prompt caution in such judgment, and Bleuler's opinion may be cited that " we are far from being clear concerning the degree and kind of its effects ". Nevertheless, for what it is worth, the sexual life, with reference particularly to harmony, suitable partner, etc., is discussed here on the basis of what objective criteria were available as a result of the psychiatrist's and social workers' contacts with relatives and patient.

Of the 20 unrecovered married women, in 12 the married life was reported as completely happy, and further statements elaborating this and testifying to the affectionate relations between husband and wife were forthcoming in many instances. In one other the husband had died nineteen years previously, but the marriage had been happy ; in 2 others, although no positive statement was forthcoming, there was no reason to suppose the marriage other than fairly happy. In 3 the marriage had been definitely unhappy, and in 2 others there were no details—one was widowed twice within three years after each marriage, and the other had lost her husband eleven years before admission.

In the recovered group 8 had had happy marriages, another also was happy with her husband whilst he lived, but after his death had taken a lover, and this occasioned her much self-reproach, and had probably acted in conjunction with the menopause seven years before to produce a depressive illness from which she recovered. Another had been happy in her two marriages. Of the remainder, one had had an unsatisfactory married life with an alcoholic husband, yet had rubbed along fairly well with him apparently, the second seemed outwardly happy. That the mere labels " happy ", " smooth ", etc., can give only an imperfect account of the actual state of affairs in each case has already been stressed. It is, of course, to be borne in mind that the homes and marital lives of many of these patients might have been eminently satisfactory but for the worrying, over-anxious temperament of the patient, who made difficulties for herself which did not actually exist, an impression supported by the case-histories of several of the patients in the whole series.

Concluding this section, it may be said that the influence of the menopause as an ætiological factor was in all instances difficult to assess, with the probable exception noted above, and it certainly appears to afford little or no prognostic guidance. Similarly, with so-called psychogenic factors, Strecker *et al.* say, " The happiness of the marital state did not seem to be helpful prognostically ".

Precipitating Factor.

A so-called precipitating factor was found in 31 cases—14 in the recovered group.

This was as follows :

Recovered.		Unrecovered.	
Influenza	3	Influenza	3
"Colitis"	1	German measles	1
Fractures	2	Puerperium	1
Removal of breast	2	Pregnancy	1
Removal of last of ovarian tissue	1	Dental operation	1
Environmental and psychogenic factors, including loss of child, mother, husband's unemployment, etc.	5	"Chill"	1
		Choroiditis	1
		Psychogenic	7
N.B.—In one of these, menopause was also considered to have played a a part.		*N.B.*—Many of the foregoing were also associated with psychogenic factors and the vague influence of the menopause, so difficult to assess.	

The rough prognostic rule that with an adequate precipitating factor the prognosis is more favourable, is not supported on the whole by consideration of the foregoing results, although there is a slight relative preponderance of such in the recovered group. Consideration of such factors leads inevitably to the endless discussion as to what is an "adequate" precipitating factor. (See in this connection Lewis's discussion of the problem and Strecker *et al.*, who say, "the adequacy of any factor was difficult to determine"), but this is not called for here, especially where two groups of approximately similar data are compared. The reason for the divergent results of the two groups must be sought elsewhere.

In 13 cases of the series no precipitating factor whatever was discovered. Of these, 10 were in the unrecovered group. In 5 others no definite precipitating factor was discovered, though in these 5, various external occurrences were blamed—a quarrel with a son four months before, the bite of a dog, husband's business losses, in the fourth the dubious influence of the menopause, and in the fifth perhaps the mother's death had played a part, though in none could the relationship be clearly or certainly traced. Of this group only one recovered, the last.

Such results as the foregoing need occasion no surprise when one considers the complex ætiology of these psychoses.

Previous Attacks.

Previous attacks occurred in 28 cases : 18 had one previous attack, 7 had two previous attacks, 1 had three previous attacks, 1 had six previous attacks, 1 had several minor attacks.

Of the recovered group, 9 had previous attacks : 6 had one previous attack, 2 had two previous attacks, 1 had one major attack and several minor ones.

Of the remainder, 19 had previous attacks : 11 had one previous attack, 5 had two previous attacks, 1 had three previous attacks, 1 had six previous attacks, and in addition 1 had several minor attacks.

It is generally accepted as another rough prognostic rule (speaking, that is, of affective disorders), that if the patient gets well once he will probably get well again, perhaps after a longer illness than before, but the foregoing results do not suggest this at all. It is of interest here to quote Strecker, Appel *et al.*, who state: "In cases developing before 40, irrespective of sex, multiple attacks are an unfavourable factor (average 80% of unrecovered, and only 47% of recovered cases), after 40 there is in general no marked difference—approximately 20%–30% of multiple attacks in both recovered and unrecovered. The exception is in the unrecovered women, in which group there is a slightly greater incidence of multiple attacks (38%)."

Unfortunately, precise details as to the length of the previous attacks was not forthcoming in several instances, but in 8 of the unrecovered series the previous attacks were very much shorter; in many of them a matter of months, and in most under one year's duration.

In one in which the previous attack had lasted 4–5 years, there were, as in the present one, prominent obsessional features.

Age at First Attack.

Strecker, Appel *et al.*, in their study, investigated the age of onset at the first attack. They found that in their unrecovered group "half showed an onset after the age of 40 years, while in the recovered group 36% occurred after 40". "Among the unrecovered types the greatest frequency was observed to occur between the ages of 40 and 50, while in the recovered group the greatest incidence was between 20 and 30 years."

The age of onset at first attack was therefore investigated in the present series to find if any prognostic significance could be attached to this factor.

In 6 cases of those with previous attacks, no information could be obtained as to the age of onset at the first attack.

In 9 cases, the first attack occurred between the ages of 19 and 25; of this group 2 recovered, 7 did not.

In 10, the first attack occurred between 40 and 50, and of these 4 were in the recovered group.

Of the remainder (3), 1 occurred at 27, and the others at 28 and 35 respectively. They were all in the unrecovered group.

These figures do not suggest that much, if any, prognostic significance can be attached to the age of onset of the first attack. As far as they go they do not tend to bear out the findings of Strecker and his associates.

Onset.

Before turning to the consideration of symptomatology the *question of age of onset* must be briefly considered. The average age of the unrecovered group was 49·9, eldest 74, youngest 41. In the recovered group, the average age

was 52·1, eldest 68, youngest 41. From this it would appear that age is of comparatively little help in prognosis, indeed the average age of the recovered group is slightly higher. From other experience, too, age is no help in itself in guiding one. The author remembers an obsessional illness in a depressive setting in a man of 88 which cleared up, and another case of a man of 77 with a severe depression (recurrent) which cleared up like its predecessors.

The question of the *mode of onset* may next be considered. Again, stress is commonly laid on the abruptness or insidiousness of the onset; where the illness has appeared suddenly, a more favourable view of its outcome may be taken. In 23 cases the onset of the illness was described as sudden, of these 9 recovered. In another 23 the onset was described as slow, gradual, etc. Of this number 6 recovered. Of the remaining 4 cases no details were available. Again these results do not allow us to draw any definite conclusions, but they do not offer overwhelming support to the current view already expressed.

Race.

A few words on *race* may be added. Five of the total series were Jewish. All but one were in the unrecovered group. It is, of course, difficult to draw any relevant conclusions from these data, but as far as they go they are at variance with Strecker and his co-workers who stress "the relatively high recovery-rate among Jews" in their material.

Symptomatology.

Clinical features can now be considered. As already mentioned, Hoch and MacCurdy's study was concerned exclusively with these, and the authors made no attempt such as that represented by the present paper to investigate the case as a whole.

With regard to *mood*, obviously no single statement will suffice. "I'm very depressed"—"frightful depression . . . and I lost interest in everything"—(feel) "dreadful"—perplexity expressed as "there's no way out of this trouble that I can see", are typical.

Self-reproach of one kind or another was present in 36 cases, 11 in the recovered group. Definite inappropriateness of affect was only found in 1 case (12), and perhaps also in Case 31, but a certain childishness and petulance were evident perhaps in 2 other cases, 17 and 19. All these were in the unrecovered group. The remainder showed consistent and sustained affect throughout. It is, however, to be noted that the milder expressions of mood occurred chiefly in the recovered group.

Perplexity and bewilderment occurred in 3 cases, 2 in the unrecovered and 1 in the recovered. No prognostic significance would appear to attach to this symptom.

It is to be noted that all the cases of querulousness and hostility occurred in the unrecovered group, and it is possible this symptom is an unfavourable one. As to peevishness and inappropriateness of affect, the present results at least do not contradict Hoch and MacCurdy's statement as to the malignancy of this symptom, but the cases showing it are few.

Such symptoms, moreover, bespeak a more definitely organic basis and Hoch and MacCurdy did not evidently exclude such cases from consideration as the present author has done, which probably accounts for the comparatively small number of cases showing such features in this series.

Delusions.

With regard to the different *ideas* and *delusions* expressed by the patients, it will be remembered that Hoch and MacCurdy claimed to derive definite prognostic deductions from these, and instanced especially " ridiculous hypochondriac delusions which usually were concerned with the alimentary tract ".

The present material may now be examined more closely.

With regard to self-reproach and ideas of punishment, examination of the utterances of the patient does not show anything which is not found in other cases of depression which do quite well and from them it would appear that no prognostic conclusions can be drawn. Recently Scheid has made the attempt to utilize the direction of the guilt (whether directed to self or environment) as a prognostic guide, and sets up four classes which, as he points out, rarely remain " pure ", but blend with one another. Primary and secondary " Ich " and " Fremdschuld ", where the latter is primary and present from the beginning, indicate an unfavourable course. As a matter of fact it is difficult to see where he contributes anything really new in his classification, and in this series, at any rate, no case of primary " Fremdschuld " occurred. With the remainder, too, although punishment and prison were talked of, no question really arose in the mind of the observer as to whom the patient really regarded as guilty. Nevertheless, Scheid's paper is careful and interesting and deserves notice as one of the very few attempts to arrive at more precise prognostic criteria in involution psychoses.

Ideas of *punishment* existed in 12 cases, 4 in the recovered group.

Ideas of *burning and dissolution of property* occurred in 13 cases. They were in a definitely larger proportion in the unrecovered group (11 cases), but when the ideas expressed by the two who recovered were examined closely, they did not differ materially as to absurdity from similar ideas expressed by those patients who did not get well.

Poverty ideas were found in 14 cases. Those found in the recovered group (6 cases) all tended on the whole to remain within the bounds of the reasonable and comprehensible. None of those patients was affluent and many were quite poor. An illness which has already lasted several months perhaps, is to be understood by the outside observer at least as a ground for financial anxiety. This does not, of course, alter the exaggerated, and in some cases delusional character of the statements.

When one turns to the unrecovered group again, 2 of these had definitely gross delusions, Case 1's statement was really a kind of "*délire de négation*". This patient said: "I can't walk about unfed and unclothed, the fact is I'm quite penniless . . . I came into hospital with nothing . . . there's no possibility of maintenance". Case 47 said she had cost millions since going into hospital. Case 50 said there was no food and no water. These tend to support the view that such ideas are of most malignant import.

Ideas of *being robbed* occurred in 2 cases, both unrecovered. That these ideas occurred in both cases which did not get well is of interest since Kraepelin regarded this as a senile delusion. That no definite conclusions can be drawn from their occurrence in the present series seems obvious, yet the fact that neither recovered is noteworthy. Ideas of *incarceration* were found in 14 cases. They were slightly more frequent in the unrecovered group (10 cases).

With regard to absurdity and incomprehensibility the ideas expressed by Case 22, who wrote a letter to her husband saying she was sure she was being sent away to a place where she would have to send home false messages of her well-being, must be regarded as at least bordering on this, but are not completely so, but those of Case 42, who asked to be wrapped up in a parcel, and who did not get well, were unmistakably of this type, and were associated with that extreme and bizarre form of depersonalization so often found in "involutional" depressions.

Torture and death ideas occurred in 17 cases, 4 in the recovered group. There is thus a more definite preponderance amongst the unrecovered. In the latter the ideas were definitely bizarre, or at least extreme, and in 5 cases were associated either with hallucinations (in one case somatic, akin to those found so often in the older schizophrenics or paraphrenics—"electrical" sensations), or else delusional misinterpretation of an absurd kind, of environmental happenings, chance remarks of others, etc.

Dirt and contamination ideas (12 cases) were pretty evenly distributed, 8 unrecovered. Here again definite absurdity (with the possible exception of Case 3, who put her food out of the window lest it should be given to the pigs), was found only in the unrecovered, in 2 cases, 19 and 1; the former saw the place filled with lice and feared she would contaminate the ward; the latter called herself "a plague spot", and said she was decomposing, that her sister was a leper, that she had "opened up the whole insect world" and that the soil and clean pipes had been eroded by her insects, and thus the whole water supply of the hospital contaminated".

We next turn to the important group of *bowel* ideas, and here also the distribution is much the same between the two groups (18 cases, 6 recovered).

On examination of the individual statements there is not the same discrepancy and many of the statements of the unrecovered are given by melancholics of all kinds, including those who later make an excellent recovery. Three cases, however, belonged rather to the "*délire de négation*" type and were all amongst the unrecovered.

Taking the hypochondriacal ideas as a whole, it is interesting that 7 out of 8 expressing fear of grave and horrible disease, e.g., leprosy, cancer, etc., should be in the unrecovered series. It is perhaps a little surprising in view of clinical impressions that this series should have given such comparatively indeterminate results.

Religious ideas similarly were fairly evenly distributed between the two groups, 17 cases, 5 recovered. Here there was less observable difference in the character of the statements. It is to be noted that a case in the unrecovered group had a "vision of the Cross". At the same time the idea expressed by Case 3, who recovered, that she "broke the mass", etc., is not to be readily understood, and is as odd if not odder than anything in the unrecovered series.

The idea of *immortality of the self* (3 cases) was not found in a single case in the recovered group, and the author's impression is that this idea has a malignant significance. It is, of course, familiar in senile psychoses. Also the one case of

belief that she and her family would die, but that the rest of humanity was immortal, did not get well.

The belief that *those dear to the patient would suffer* or were suffering occurred in 13 cases, 10 unrecovered. They were thus noticeably more frequent in the unrecovered series. In the latter, two were definitely fantastic, and one was notably " paraphrenic ". At the same time the idea expressed by one patient who got quite well had a schizophrenic appearance, as indeed had most of this woman's utterances. This patient would not pass a certain picture for fear it " bound " her nephew.

The belief that *they were injuring others* occurred in about the same proportion as in the preceding group (14 cases, 10 unrecovered), and here again the fantastic, absurd and bizarre, with the possible exception of Case 37, who thought everyone in hospital was in pain through her fault, that she harmed others by sending her wicked thoughts into them, and wanted to leave the hospital so that the bodies of the others might be made all right, was to be found only in the utterances of the unrecovered. Ideas of cosmic or world cataclysm were observed in 2, both unrecovered.

Ideas of *omission* occurred in 6 cases (4 unrecovered). They have been included under delusions, though it is probable at least a part of them belong more properly to depersonalization as in Case 3, where she said " everything is at cross purposes ". Case 5's ideas have a distinctly schizophrenic character. This patient said that the others knew what to eat, but she didn't. She said, " I have a feeling they look to me to do something and I can't find out what it is ". Heard people say " she won't do it ". Felt that there was some sort of society to which everyone but she belonged.

The feeling of omission of which many patients complained has already been mentioned. There remain the allied *feelings of wrongness* to discuss. Some of these have already been grouped under the former heading, and what has been said of the origin of the sense of omission is probably true also in part at least of this group and nothing remains to be added. Here also little can be deduced from the group.

(It is obvious a certain amount of overlapping must take place in the description of symptoms.)

Depersonalization (including time disorder) occurred in 15 of the total series, 6 recovered. As usual the symptom was protean in its manifestations, including 2 cases of time disorder, both of whom recovered. One was the interesting case of extreme depersonalization in which the patient referred to herself in the third person neuter, again the idea of negation, which is probably based in many cases on just such an extreme degree of depersonalization. This patient did not recover. Case 50 expressed this feeling in a rather exaggerated, not to say fantastic manner, and Case 31 certainly showed an extreme degree of it, though it is doubtful whether her utterances could not be paralleled by many other patients who ultimately recover.

Paranoid ideas of one kind or another occurred in nearly half the cases (21), and showed a slight preponderance in the unrecovered group (15). When the cases were examined closely it was seen that all those with one exception in the recovered group were of a readily comprehensible kind springing out of the feeling of inadequacy and worthlessness of the patient, and did not differ materially from those found in other cases of melancholia which recover. The exceptional case bore an unmistakably schizophrenic stamp and has been mentioned more than once already, yet despite this prominent schizophrenic component she made an excellent recovery.

Of the unrecovered group, Case 5 also expressed ideas which had a schizophrenic ring. Case 34 had an angry and aggressive attitude from which her ideas sprang. Case 32 showed a more ramified paranoid system, Cases 4 and 16 expressed ideas of burning. Beyond these, however, many of the ideas expressed did not seem more absurd than many found in depressions seen every day which run a benign course.

The idea of *spying or being spied upon* was listed separately at first, as it seemed possible that a search of the records would reveal more than the one instance of the former which occurred—this, however, did not appear. All the cases in this group have been already listed under the heading "paranoid" with one exception, Case 7; 11 cases in all. There is really little reason for including them under a separate heading, but the author's impression was that such ideas were commoner in the psychoses of later life. All the cases which recovered, with the exception of three, had ideas which did not essentially transcend the bounds of the comprehensible. Many of the others are much more far-fetched, even to absurdity.

Ideas of *influence*, the so-called *passivity feelings*, occurred in 7 cases, of which only one, again the Case 3 so frequently mentioned already, was in the recovered group. These experiences took the form as already noted of the familiar "electrical" sensations in Case 5, and of other passivity experiences in 5 cases. It is interesting that this patient thought the sensations were for therapeutic purposes. In some cases both existed together in the same patient. Case 3 also showed thought disorder of characteristic kind. Yet despite these obviously schizophrenic features she got well. Although the presence in the series of this one case makes definite conclusions from such symptoms invalid as an invariable guide, yet none the less, the presence of such schizophrenic features suggests caution in forecasting the prospects of a given case.

Ideas concerning *food* in one form or another occurred in nearly one-third of the total series (15 cases). The preponderance was notably on the side of the unrecovered (13 cases). The ideas of the 2 recovered cases might have been found in any case of depression, but one, Case 37, was poorly elaborated unfortunately, and little can be said about it. Case 1 showed great alimentary preoccupation, and her bizarre ideas have been noticed elsewhere. Case 49's ideas are interesting and have a schizophrenic character. This patient said, "they tell me that if I don't eat my food somebody's going to be killed". Case 46 showed what might be regarded as an extreme degree of depersonalization, of the nihilistic type. Case 50 showed kindred ideas, "no food here and no water" even whilst eating. Case 5's ideas were very queer. This patient thought that if she ate fish the other patients touched something black (the bed-rail). Case 4 said the food supplies were cut off—again nihilistic. Again absurdity, nihilism, etc., are chiefly on the side of the unrecovered, and the general impression is that much alimentary preoccupation tends to be an ominous sign.

Ideas of *poisoning* occurred in only a comparatively small proportion of the cases (7). Of the recovered (3 cases), Case 22's ideas were definitely fantastic. Case 10's might have been associated with depersonalization, and Case 29's (who wondered if her right hand and arm were poisoned) were quite comprehensible in view of a recent breast amputation and the fear of glandular involvement. In the unrecovered, Case 4's ideas were strongly paranoid, and Case 12 showed the "gas" idea so characteristic of the paranoid psychoses of this period. Case 1's bizarre ideas have been frequently noted above, and are just as fantastic as the others. The frequency of poisoning ideas in involutional depressions has been mentioned by Medow (quoted Halberstadt).

Sexual ideas. The 9 cases were almost exactly evenly distributed between the two groups (3 recovered (Cases 3, 29, 22), 6 unrecovered). Case 3 showed the common depressive idea of the evil effects of masturbation. Case 29 had similar ideas, quite comprehensible in a rather ignorant person; she believed that a lump in her breast was due to masturbation. Case 22's ideas, though queer like most of those she expressed, could be understood as springing from the more or less intense anxiety which she showed. This patient was afraid that they were giving her a drug to make her pregnant. Case 7's ideas were of a bizarre obsessional type. Case 16's had a more "paranoid" than depressive character. Case 42 expressed delusions of a former erotic relationship, so often met with in schizophrenic illness, whilst the ideas of Case 27, who thought that she was pregnant, and even claimed to squeeze a dirty fluid from her nipple, were perhaps also a little fantastic, though probably not more so than many such ideas occurring in benign depressions.

The *sense of omission* is also perhaps a mixed group, four in all, some of the cases as 2, for example, who said, " I can't ever do anything any more ", represent no more than the usual depressive feeling of inadequacy, while others may be based on depersonalization or have an obsessional character. The occurrence of the symptom, however, in the more clearly-defined form as here presented, justifies its inclusion perhaps in a special group. Little, if anything, however, can be drawn from this group.

The belief that she had *special powers* occurred in only 4 cases, equally distributed (2 in each). Case 42 may have been in a manic phase at the beginning, but throughout the period of observation was depressed. The ideas expressed by Case 1, who believed that she had liberated insects which caused an " electric " storm, also that they (the insects) had altered the bark of a dog and the crowing of a cockerel, were fantastic in the extreme; but it cannot be said that the ideas of Cases 3 and 37 in the recovered group were any more reasonable, though far less fantastic.

Thought disorder of the schizophrenic type occurred in 3 cases, of which it is interesting to note all recovered. In one of these, Case 3 so often mentioned, it was prominent and unmistakable. Case 37 was really too dubious to include here, as it represents a common religious belief in the normal, e. g., she thought some supreme power knew all she was thinking. Of Case 20, too, unfortunately, further details are lacking, and perhaps too much importance must not be laid on it. This patient thought everyone read her thoughts. Katatonic features, e. g., stupor, verbigeration, etc., were not observed in any of these cases.

Cases showing gross *organic features*, memory defect, disorientation etc., have been as stated purposely excluded from this survey, but one case (13), who was disorientated and showed some memory failure on admission, did not recover. This may have been a drug intoxication.

Hysterical features were, surprisingly enough, present in only 6 cases, of which 4 did not get well, and in these 4 it could really be described as only the lightest hysterical tinge. As far as such symptoms go, no guidance is offered from the present material.

Compulsive features were also few in number, 5 cases, 2 recovered. Those found in Case 24 are interesting, e.g., she saw some patients standing with hands on hips, and developed a fear lest she should be compelled to do the same—described it as " a tormenting thing to do ", yet, despite their odd character, this patient recovered. It may be that the compulsive phenomena found in Case 50 are of bad import, but from the whole group it is not easy to draw definite conclusions. This patient carried out apparently compulsive actions, opening every door she found closed, and worrying whether everybody could get out—later banging doors to—could give no reason for these actions. Also showed compulsive speech, e.g., would show deferential manner, then suddenly say, " Go and get on with your business, don't stand there ", then apologize for her rudeness. Frequently rubbed her hands and held out hand to be shaken—wanted to say " Good morning to the Duchess " (no explanation).

From the so-called *neurotic features* little evidence can be drawn. It may be noted that Case 48 showed irritability and bad temper, suggesting a possible organic component. This case did not recover.

Manic features, apart from those already mentioned as probable in Case 42, occurred in Case 19, in association with more definite depressive symptoms, and furnishes an example of the so-called " mixed state ". The existence of a possible manic phase has been mentioned in Case 42 and in Case 50 after discharge where the patient was very optimistic and full of all sorts of schemes, Case 1 also showed a brief period of elation.

Hallucinations.

By far the greater majority of cases showing *auditory hallucinations* fell in the unrecovered group (10 out of 13). Of the latter group, in Case 5 some of these so-called hallucinations were probably paranoid misinterpretations, but it is probable she also experienced genuine auditory hallucinations. In Case 12, it was certainly not only a question of true auditory hallucination, and some little doubt exists also in Case 23, and in part also in Cases 16 and 50, though true hallucinations must be held to have existed in the former as well, and possibly also in the latter. In Case 35 it was probably a case of such misinterpretation.

In the recovered group the evidence for hallucinations is doubtful in Case 33, and perhaps also in Case 38, but in Case 3 no doubt exists as to the presence of true hallucinations. The foregoing results seem to point to hallucinosis as a symptom of some, perhaps considerable, prognostic malignancy, although as far as the individual case goes, Case 3 must be borne in mind, so that no really unequivocal evidence exists and prediction in the individual case must always stand to be falsified. Indeed this particular case is a constant reminder of the danger of drawing conclusions from one aspect only of the case.

When we consider *visual hallucinations* much the same position is found. The majority showing such belongs to the unrecovered group, 6 out of 8. In the latter series, in Cases 1, 47, 25, 23, the question of a bromide intoxication arose, but the question remains whether the production of such symptoms even under toxic influence is not of significance. In Case 25 the so-called hallucination, where the patient said she saw spirochætes wriggling at the point of the needle as a sample of blood was withdrawn, may have been an illusion produced by the shimmer of the drop of blood on the end of the needle and here also possibly an intoxication may have been responsible.

In the recovered group the hallucinations of Case 3 were just as queer and irrelevant as any in the other series. It is advisable perhaps to lay little stress on these symptoms, they were all perhaps toxic in origin or else illusions arising on a basis of anxiety. It is significant, however, that nearly all those showing such symptoms did not get well.

In the case of the so-called "*somatic*" *hallucination* (14 cases) many symptoms are included which should fall under " depersonalization ", " passivity feelings ", etc. In the unrecovered group (9 cases), Cases 35, 42, 49, 25, 46 (which represented a form of negation), e.g., Case 46 said that during an attack of influenza she felt something " go bang in her head " ; said she could neither breathe nor swallow, as her throat was closing up. " All my body's shrivelled up to nothing, I can't make it out ", Case 27 felt movements of quickening in association with her pregnancy belief, Case 31 had feelings as of an electric battery in the stomach. These were definitely bizarre and of undoubtedly schizophrenic character. When those of the recovered group are examined, Case 3, who said she was burning inside, and sat on the lavatory seat to keep cool, is a little difficult to assess, and might be an allegorical expression. Case 22 had a depersonalization symptom not uncommon in

benign depressions; Case 6 had sensations commonly seen in many mild anxiety states which never get further than the out-patients' department, and Case 17's are probably of a similar kind. Case 39, who thought that something seemed to stop her food at the upper end of the sternum, expressed an idea commonly seen in benign melancholias. This group then shows a more marked contrast between the unrecovered and the recovered in respect of bizarrerie, and incomprehensibility, and tends to support the common clinical impression of the prognostic malignancy of such symptoms.

The next group of hallucinations to be considered is the so-called *tactile* (12 cases, 3 recovered). Under this head a number of symptoms is considered, most of which do not really belong here, but on account of certain peculiarities have been so included more or less arbitrarily, lest they should have been overlooked. It may be said here that anything of the nature of, say, formication was only found in one case (19), although one other case (29) approached it, and also to a lesser degree Case 6. Nevertheless symptoms such as those of Case 35 have perhaps a slight claim to the term tactile. This patient had sensations of being choked at times, also said she felt something "pulling here and pulling there, and even the back of my head . . . it makes my mouth move about. If it isn't in my head, it's in my body, pushing me down. . . . In my back and in my stomach". Felt as if there were a thread in her mouth and made movements as if to spit it out. (It must be admitted, however, that most of them could have been grouped under the general heading of the foregoing group, as somatic hallucinations, and some of them must be regarded as examples of the extreme form of depersonalization mentioned already.)

Surveying this section, it is seen that by far the majority occurred in the unrecovered group. Of this group, Case 5's sensations have a definitely schizophrenic ring, and are like similar experiences in the so-called paraphrenias. This patient felt a prickling sensation "like electricity . . . it tightens up all the muscles of my legs, and I've a pain in my spine . . . I feel little hot sparks while it's on". Case 35's sensations were similar and suggest passivity feelings.. Cases 32 and 46 complained of tightness and pressure in the head, symptoms so frequently found in many benign depressions, but also, of course, in many chronic outpatient hypochondriacal neurotics. Parenthetically it may be remarked here that such cases do not always carry the well-nigh hopeless prognosis attributed to them by tired out-patient physicians. Shortly before leaving the staff of the Maudsley Hospital, the author observed one case in out-patients who had such an illness of eleven years' duration in early life which cleared up and was followed by many years of health, only to recur at the involutional period when she presented herself for treatment again. This does not, however, detract from their prognostic malignancy and an incapacitating illness of eleven years is a grave matter. Cases 26 and 31 are examples of the bizarre depersonalizations mentioned. Altogether incomprehensibility and absurdity tend to characterize the 9 unrecovered cases. Turning to the recovered group, some of Case 29's sensations might have had a true organic basis and might have been experienced by anyone, and perhaps very little separates the feelings of Cases 6 and 22, who had creepy feelings coming up back and arms and pins and needles in hands and legs, respectively, from some of the others already mentioned, but they do not in the least possess their extremely queer character.

Next, *gustatory hallucinations* (4 cases) must be discussed. All were among the unrecovered. This group is a little difficult to assess, as for the most part only a bare statement was given. It may be they possess a special malignancy, but the data are too scanty to be of great value.

Lastly, the *olfactory hallucinations* (5 cases, 2 recovered). It is noteworthy that the 2 patients expressing the gas idea or hallucination did not recover, which tends to support the general impression of malignancy of this symptom. Case 16 (unrecovered) expresses the idea found in numerous cases of melancholia, benign as well as malignant, that her body had a bad smell. Of the two recovered cases, Case 39's statement may have been akin to Case 6, and as olfactory and gustatory hallucinations are frequently confused, perhaps this tends to discount in some

measure the remarks made under gustatory. Case 29, who had had a breast operation and who whilst in the Maudsley said she noticed a queer smell arising from her operation scar, may have smelt antiseptics from her wound, or perhaps pus when the wound was open (it was closed during her stay in the Maudsley), and little importance can be attached to it. On the whole the impression gained from the last two groups is that they are symptoms which must be regarded more seriously than hallucinations of other senses. Case 5's olfactory " hallucination ", it must be noted, cleared up after treatment of a septic nose.

Summing up the question of hallucinosis in these disorders as a whole, the evidence points to prognostic gravity or even malignancy of the symptom, but in this regard those seeking for solid ground must bear in mind the disconcerting Case 3, which will be reported in full below, as it seems to be of importance. Naturally the observer will exert the most scrupulous care to evaluate the symptoms and exclude drug hallucinations, the results of bromide, somnifaine, etc. This is not always easy, for, as with bromide, for example, the slow elimination of the drug may cause a confusional or delirious state to persist for months.

The symptom of *agitation* must now be discussed. Along with this will be included so-called anxiety features of an objective kind, e.g., tremors, etc. Anxiety and agitation have long been considered classical features of the involutional depressions, and it is not therefore surprising that such symptoms should be found in a comparatively large number of the cases in this group. The unrecovered group will be considered first. Looking through them it is difficult to be sure that there is anything which does not occur in cases of depression at all ages. A. J. Lewis found agitation, much of the kind recorded here, in patients of all ages. At first one looked for the verbigeration and stereotypies which are so commonly found in the senile cases, but as Case 24 shows, who rocked herself to and fro continually, this occurred in a recovered case. Case 22 also made whining noises continually, and is in the recovered group. Case 1's (unrecovered) agitation at times resembled that of the senile patient. Case 14 (unrecovered) muttered the same phrase monotonously, Cases 14 and 45 also made verbigerative utterances. Surveying this group as a whole, it is hard to find anything of prognostic value in it. Perhaps the more severe and senseless type of motor restlessness in speech or action tends to be more unfavourable, but more than this one cannot say.

" *Retardation.*" No prognostic value can be attributed to this symptom, as it was found in an equal number of recovered and unrecovered cases (6 of each.)

The *anxiety signs* found can be dismissed briefly. There is nothing here which is not found with about equal frequency in the two groups. It may, however, be remarked in passing that with regard to the alleged affect, in a case like 21, who could hardly sit still in a chair, " writhed with anxiety ", where this was sustained and " genuine " the patient did not get well.

With regard to the *occurrence of suicide*, there were 35 cases where this was threatened or attempted (11 recovered)—no conclusions, of course, as to prognosis can be drawn from the existence of suicidal tendency either latent or realized. It will be remembered that up to the time of inquiry only 1 case

(45) actually committed suicide after discharge, and beyond the fact that she had attempted it at the onset of her illness, no other guide as to this *dénouement* was found.

It may be noted that Strecker and others found suicidal trends prominently in the unrecovered group (40 as opposed to 28%).

Physical Findings.

A list of the physical findings is given below. Great stress is usually laid on the existence of *arterio-sclerosis* in the prognosis of the psychoses of later life. Strecker and others say, "Arterio-sclerosis is one of the most significant factors in estimating prognosis in manic-depressive attacks, its incidence is remarkably greater in the unrecovered group". There were 7 cases showing arterial hardening in some degree, and it is noteworthy that only one of these recovered. The 2 cases showing giddiness, which might, of course, have been evidence of a commencing arterio-sclerosis, also did not recover. The occurrence of a high or moderately high blood-pressure on the other hand did not appear to be of much importance. One case with a blood-pressure of 200/116 made a good recovery. It must be stated again that cases showing signs of obvious dementia were not included in the series, but a commencing dementia cannot, of course, readily be excluded, and the existence of such cases constitutes a perpetual problem to every psychiatrist. The physical findings as a whole then, with the exception of those cases showing arterial thickening in some degree or other, cannot be regarded as of any help prognostically. The findings in question are most varied and despite the fact that only 25% of those who showed some physical disability recovered, the results must be evaluated with extreme caution. One would not, for instance, attribute to a uterine displacement undue significance in regard to the relevant problem, as in Case 11. Strecker *et al.* say with regard to physical factors, " no specific somatic elements can be singled out as suggestive of an unfavourable effect upon prognosis except the presence of the cardio-vascular-renal disease complex ".

Case 4 was in fair health. Case 5 had a septic nose—seen by rhinologist, and after use of a nasal spray olfactory " hallucinations " seemed to clear up. Beyond this, *nil*. Case 16, *arteries slightly thickened*. B.P. 126/96. Old facial palsy, left side. Case 29, B.P. 200/116. (Right breast removed.) Case 25, large infected tonsils. Case 3, slight amount of hair on chin ; health good. Case 27, B.P. 160/94 ; chronic otitis media. Case 17, B.P. 168/96 ; arteries soft ; liver enlarged three fingers' breadth below costal margin. Case 46, *dizziness* ; B.P. 153/50 ; systolic murmur (cardio-pulmonary) at apex. Case 19, *B.P. 164/78* ; *second aortic heart-sound high-pitched*. Case 6, old united fracture left tibia, good alignment ; old Colles's fracture left wrist. Case 21, takes food well, but steadily lost two stones, then gained over 3 lb. in a week. Case 13, slight moustache—normal sexual development ; B.P. on admission 140/95, later low B.P. ; systolic 90 or under. Case 24, *some arterial hardening* ; *B.P. 158/90* ; heart slightly enlarged to left ; apical systolic not conducted. Case 30, ? rheumatic neuritis of left ulnar causing

prickings and tinglings along ulnar distribution, with some wasting of arm, and of hypothenar eminence. Attacks of vertigo, nausea and vomiting. *Nil* definite found on examination; some vague gastric symptoms. Case 11, uterine displacement. Case 1, *arterial thickening*; *B.P. 158/118*. Case 23, chronic cystitis; chronic choroiditis; heart enlarged to left; B.P. 160/99. Later in another mental hospital had some epileptiform seizures and question of cerebral tumour arose, and patient trephined. Since then no recurrence. Case 20, B.P. 162/98. Case 50, *arteries slightly thickened*; *B.P. 150/85*. Case 40, varicose veins both legs. Case 12, *some arterial thickening*. Case 33, soft systolic murmur heard all over præcordium, loudest at apex. *Nil* else found. Case 2, B.P. 150/94; fair health. Case 14, chronic acne rosacea; B.P. 170/124; tingling and numbness in both arms at times. *Nil* found. Case 15, *B.P. 176/98*; *arteries slightly thickened and tortuous*. Case 28, *giddiness*. Case 26, *radials hardened and tortuous*. B.P. 154/98.

Of these 28 cases, 7 (29, 3, 17, 6, 24, 20 and 33) were in the recovered, and 21 in the unrecovered group.

Signs of *endocrine dysfunction*, e.g., hair on face, etc., were remarkably infrequent. They were noted in two cases, one of whom got well, the other did not.

General Discussion.

The clinical facts having been recorded, analysed and discussed, it is now possible to make a general survey of the whole group and draw from it what prognostic guidance we can.

It must be admitted at the outset that guiding factors in prognosis are few, and in most cases vague, a by no means uncommon state of affairs in psychiatric researches of this kind, which are based on unprejudiced detached examination of the clinical facts.

The general conclusion emerging from this study is that the prognosis of such depressions is on the whole poor. Roughly a third of the total made recoveries which could be regarded as complete in a reasonable space of time, i.e., one to two years; and roughly another third could be called partially recovered, i.e., able to do a little house work, or attend to simple routine tasks, but still showing symptoms and still under treatment as out-patients, or with their own doctors, though not requiring institutional care. The remainder were either in mental hospitals or dead. Since the "follow-ups" were completed a year or two has elapsed and it is possible that the total of recoveries has crept up, but may be balanced by relapses or deaths. The task of following up these cases now devolves on others. The author had been engaged on the present paper for some considerable time, but has not found the opportunity to complete it till now, and in the meantime he has left the staff of the Maudsley Hospital.

The opinion of other authors, then, as to the general prognosis of the depressions of later life quoted at the commencement, is fully confirmed, a fact which will not surprise any experienced psychiatrist. If the author should seem to stress the obvious, it is only because of his desire to escape the realm of vague impressions.

With these general remarks we may now proceed to sum up the details. The heredity data seem to the author the most unequivocal feature of the results and, obtained as they are from such scanty data, point to the need for further and elaborate research into the hereditary and constitutional relationships of these disorders, as Fünfgeld has already urged. What has emerged is that such findings can materially assist in forming a prognosis in the individual case and that where a heavy hereditary load is found the outlook for the patient is worse than where this is insignificant. This is the author's impression (so far uncontrolled) in cases also of so-called neurotic illness, notably with the obsessional states.

Leaving aside the question of heredity, it is difficult to find anything that can be of prognostic help in the previous histories of the individuals. As already remarked, prepsychotic personality seems a poor guide. Whether the existence of certain morbid personality traits is an ominous feature portending a severe depressive illness in later life cannot, of course, be deduced from the present material and suggests the desirability of such a study on a large scale. It is certainly striking that the so-called "good" personalities should be in such a small minority, good that is in the rather limited sense mentioned. As little or even less significance is to be attached to the so-called neuropathic traits, to the menopause and to psychogenic factors of the kind so frequently described in the histories of these disorders. Again, what will perhaps occasion more surprise to those who regard what seems an "adequate" precipitating or releasing factor as a good rough prognostic rule in practice, is the insignificance of this as a guide. With regard to previous attacks, the general clinical impression is not merely not supported, it is actually reversed, and multiple attacks must be regarded as tending on the whole to a bad prognosis, a view which finds support from Strecker *et al.* in manic-depressive disorder as a whole.

When the symptomatology is considered, there is perhaps a little more that is of some help, though Case 3, described below, must not be forgotten. On the whole, absurdity of the ideas (and it is well perhaps to say gross absurdity) tends to be more frequent in cases which are not going to do well. It is seen most clearly in such ideas as those of death and torture to which Hoch and MacCurdy are not inclined to attach any prognostic significance, and it seems as if certain ideas, e.g., those of negation, justify the place they have long held as prognostically malignant, that they are perhaps evidence of a cerebral organic affection which (as the work of e.g., Fünfgeld suggests) may lie at the basis of some at least of the illnesses under consideration. Perhaps the ideas of immortality and world cataclysm must also be included here. What Kraepelin termed the "senile delusion of being robbed" may be in the same category, and it is noteworthy that neither case showing it recovered. Medow stressed the frequency of ideas of poisoning and ruin in his group of chronic involutional cases, as well as hypochondriacal ideas, which Halberstadt

also confirmed in his cases ; the latter, however, did not find hypochondriacal ideas as constantly as the former. The common clinical impression of the relative malignancy of bowel ideas is not borne out by the results here. None of the cases showed the filthy habits described by Hoch and MacCurdy in their cases. It may also be noted that paranoid ideas are somewhat unfavourable. Strecker *et al.* also found a preponderance of such in the unrecovered group, and they urge the same caution in evaluating them. Hoch and MacCurdy, however, do not give them any prominence. Further, Lewis and Hubbard state that, "speaking generally, persistent localized feelings of depersonalization, dominating hypochrondriacal ideas with bizarre delusional elaborations, outspoken hallucinations with delusional fortification, and odd disjointed mechanisms make for a comparatively early serious outcome". But here, as with hallucinations, the most careful psychiatric assessment and evaluation is necessary. The degree of absurdity must be taken into account. When the depression clears up leaving a definite paranoid structure behind, or where the delusions are not of the obviously depressive type even if a little bizarre, it is probably safe to regard the illness unfavourably. It must again be stressed at the risk of tiresome repetition that a prognosis cannot be made from one aspect of the case alone, and certainly not from one symptom alone. If bowel ideas do not guide much, the impression from this material is that much alimentary preoccupation must be regarded gravely. This agrees in general with Strecker and others, and with Hoch and MacCurdy.

Even the degree of absurdity of a given idea can be misleading. Consideration of Case 3 will do much to impress this.

Hysterical, compulsive and other "neurotic" features offer no assistance.

On the whole, as has been said, hallucinosis tends to appear as a symptom of some malignancy, and Strecker and his associates also found it rather more frequently in their unrecovered cases. The hallucination of gases so characteristically found in the "involution paranoias" is probably of evil omen.

Concluding then from a carefully compiled mass of clinical material, there are no certain prognostic guiding signs of which the clinician can avail himself. Yet the study is not completely negative. In summing up any individual case the author would lay stress. (1) On hereditary burdening, especially where this is at all heavy. (2) On the occurrence of multiple attacks. (3) On the existence of certain symptoms, e.g., the idea of negation and possibly certain kindred ideas, and on hallucinations. (4) On the absurdity and bizarrerie of delusions, and that in general, Hoch and MacCurdy's contention as to this last feature tends, but only tends, to be supported by the present study, that this absurdity may be prognostically malignant, not only with ideas concerned with the alimentary tract, but with others as well. That where such factors as the foregoing are combined, the clinician is justified in taking a grave view of the case at least, that is, for a reasonably early recovery.

Hoch and MacCurdy's other criteria, marked insufficiency of affect and

peevish or auto-erotic behaviour did not find much support as prognostic guides in this series. Cases showing them were very few, and it is perhaps because such symptoms belong to the more obviously organic or senile case that this was so, as of course all cases diagnosed as senile or arterio-sclerotic depressions were excluded from consideration.

As one last word, the author would again point out the impossibility of making a prognosis from any one factor of the case alone.

As the statistical survey has afforded so little, perhaps it would be as well to consider one or two cases which did conspicuously well, and contrast them as a whole with some which did equally badly.

The first case is No. 41, æt. 53. The family history was alleged negative. Personal history essentially uneventful up to events just preceding present illness. The husband lost his employment, following which the patient had an unpleasant incident in which the car in which she was travelling killed a man. It was following this that her illness began. Menopause two years previously, was uneventful. Married at 22, one daughter, aged 30. Marital life happy. A woman of limited interests, but sociable, liked gaiety. Rather fussy over food and cleanliness, and a little over-anxious, but cheerful for the most part.

On admission she was frightened and apprehensive and felt it, and showed a certain amount of motor restlessness, couldn't stay anywhere. Tremor of outstretched hands. Physically nothing abnormal. She left after a few days, against advice, saying that she was not suitable for contact with severe cases, and after a period abroad with relations she improved, though she was still subject to attacks of slight depression. The condition finally cleared up and was followed by feelings of well-being, possibly a slight hypomanic phase.

It is evident here that neither heredity, previous attacks, delusions, except a slight hypochondriacal preoccupation, were present.

The second case is No. 28, æt. 42. Jewish, of foreign extraction. Family history negative. No previous attack. Married happily twelve years; three children. Always a timid, frightened person, but cheerful, not prone to worry, even tempered, active, energetic, and helpful to those in trouble, but a little suspicious, prone to think her neighbours were deceiving her, possibly due to foreign environment and language difficulties. Following business troubles and puerperium, fell ill, and made suicidal attempt. On examination: "I feel weak, not very good." Some slight self-reproach. Readily broke down into tears. Physically, nothing abnormal beyond medium tremor of fingers. No delusions or hallucinations. Following discharge twenty-one months later, and after a period as voluntary patient at a mental hospital, she is no better. Irritable, depressed, has attacks of crying, says family is against her, finds children trying, shows definite paranoid attitude, blames others for her condition.

It will be seen that as far as the consulting-room is concerned, and even in the second case after a fair period of observation in hospital, nothing very significant appeared in it which did not appear in the first, and she was in addition a younger woman (11 years). Why has the one done so well, while the other is as far from health as ever she was, perhaps a little worse? The answer is nothing that case-histories taken with equal care can determine.

Nothing could show better how far we are from being able to assess the prognosis in the individual case. Perhaps in the second case we should lay more stress on the existence of the paranoid component in the previous personality, but what of the five cases in the series who had similar traits, and in several instances more serious clinical features, e.g., delusions, and yet recovered completely? Perhaps the question of race and pecuniary circumstances are of importance. The first case was a Gentile, and although her circumstances were reduced as described, her standard of life remained much as it was.

The present study can be regarded as no more than a brief introduction to the problem; its failures and shortcomings will prove helpful in enabling other workers on the same subject to avoid them, and it must again be pointed out that such highly tentative conclusions as have emerged have no other value than as reminders in making a forecast of the individual case, but that each case must be studied strictly on its own merits. It is possible also that the method employed is not one calculated to yield satisfying results. That, however, could only emerge after the attempt had been made.

The frequently-mentioned Case 3 may now be briefly described. Female, æt. 52. Family history essentially negative. Past history, second attack, first attack seven years previously. Had much mental anguish. "Everything upside down in left eye." Thought she was going to be killed. Some ideas connected with the Crucifixion, that all her relatives were dead, thought clergyman alluded to her in his sermon. Also some compulsive features. Lasted one year and then complete recovery.

Menopause in progress on admission; single, no sexual "traumata". Generous, energetic, naturally interested in life, not unsociable, prone to assume burdens of others. A little wilful and did not take kindly to discipline. Had been worrying a good deal before admission, and overworking. These, together with the menopause, were regarded as the precipitating factors. On examination, depressed, worried and apprehensive, wept a lot. Self-reproach, ideas that her job had been a "testing period" for her, and that she was cursed. Ideas of reference, saw meanings everywhere, thought workmen in an adjacent house signified the fall of her house. Vague ideas of contamination. Queer ideas of having "broken the Mass" which had a spiritual effect on people and was spreading harm. (She was a member of the Church of England.) Queer compulsive ideas, e.g., couldn't pass a certain picture lest it "bound" her nephew. Some depersonalization. Felt watched in everything she did, that she was made a spectacle of, that her thoughts came to her by wires, and she was at times controlled by a secret society. Thought-withdrawal, said that they were "snatched" from her, that they were read. "If I think a thing, it seems to be snatched from my mind." Some trivial hysterical features; thought she was burning inside. Physically, nothing abnormal beyond some hair on chin. This patient made an excellent recovery and returned to work.

Examining this case we see a negative family history, one previous attack, and a florid symptomatology, including many unmistakable schizophrenic features, including thought disorder. In addition she showed some hair on chin (so frequently regarded as of bad prognostic omen). This patient made a complete recovery and returned to her former employment, where she was reported as working as efficiently as ever.

It is hoped that this paper, despite its numerous defects, will at least stimulate further research into this problem.

The author wishes to thank Dr. Mapother for kind permission to make use of the clinical material from the Maudsley Hospital.

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