

## AFTERNOON

Conference reconvened at 2:00 P. M., John Coleman, a member of the State Board of Control, in the chair.

G. C. Hanna, superintendent of the Minnesota School for Feeble-Minded, read a paper on "The Menace of the Feeble-minded."

Discussion followed.

It was decided to hold the next quarterly conference at the Anoka State Asylum.

Adjourned.

R. W. Wheelock, chairman State Board of Control: We are very fortunate, indeed, to have with us today a gentleman who is working along specific lines more or less in touch with our work, while covering in a broader way one of the most vital phases of social welfare work, Dr. Smiley Blanton, director of the Minneapolis Child Guidance Clinic, who came here within the past year after a very successful career in the state of Wisconsin, and who, during the short time he has been associated with the Minneapolis and Minnesota activities, has developed a wonderful grasp of existing conditions. I know we shall be entertained and edified and in a sense broadened out in an educational way by hearing the doctor, and I take great pleasure in introducing him to the superintendents of our quarterly conference and other friends associated in our work in a general way.

## MENTAL TESTS

Smiley Blanton, M. D., Minneapolis Child Guidance Clinic.

1. **Their significance:** General mental tests are supposed to do, in a limit of forty minutes or an hour, what it would take several months of observation of the patient's general behavior to find out. They are not haphazard things, nor are they devised according to what some think that people ought to do, but they have been carefully tried out on thousands of individuals. The tests, too, are not used merely to find out whether a person is abnormal or not, but they are used to find out the capacities, abilities and possibilities of individuals. A mental test which merely gives us the mental age of an individual is of very little value, especially in the higher grades of mental deficiency. If it does not give us some insight as to how to deal successfully with an individual it is scarcely worth while. In the lower grades of mental deficiency we do not need a mental test to make a diagnosis. Any one can do that.

2. **Binet-Simon Test:** In 1904, Alfred Binet, a physician as well as a psychologist, of the University of Paris, was asked by the educators of Paris to devise some means whereby the mentally deficient in the schools of Paris could be properly segregated. Binet had been working for many years on mental tests. Up to this time most of the investigators had—especially those who were physicians—placed their greatest emphasis on testing the senses, the capacity of the sight, of the hearing or muscle strength of the reflexes, and, especially of the sensory discriminations. This work brought very meagre results. We know now that the senses (the sight, the hearing and sensory discriminations and muscle co-ordinations) of the moron are not at marked variance with those of the average individual.

Binet recognized a fact that we all know—that the intelligence of the normal child varies with his physical age; at least up until the age of 12 to 15. Binet, in connection with Simon, a psychologist, (the work, however, was very largely that of Binet) made an effort to devise tests which would vary so in difficulty that individuals could be tested all the way from 3 years up to 15 years of age. These tests of Binet's were not based upon his own judgment of what was easy and difficult, but were the results of thousands of experiments tried on thousands and thousands of children. The tests first appeared in 1905 and consisted of 30 tests arranged in the order of their difficulty. Three years later the scale was again presented—this time with the tests standardized in terms of mental age. Those tests which the average three-year-old can meet successfully were grouped under the third year. Those which the average four-year-old can meet successfully were grouped under four years, etc. Thus each test came to have a certain objective value expressed in terms of the average intelligence of a given birthday age.

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In 1911 Binet published the second revision of his scale, but his work was soon thereafter interrupted by death, and he was prevented from perfecting his idea. The original Binet scale is used frequently. Most of the Binet tests now used are those which have been revised by the psychologists in this country. Those who have revised the scale are, among others: Goddard, Kuhlmann, Yerkes-Bridges-Hardwick and Terman. I suppose most of the workers in this country use the Terman Revision of the Binet Scale. These psychologists have revised the scale by adding a few tests; chiefly by changing the Binet tests from one age to another, either putting them further down in the scale, or putting them further up in the scale as they prove to be too hard or too easy.

"As left by Binet, the scale consisted of 54 tests ranging in difficulty from tests that are difficult for the average year-old child to tests that are difficult for the average adult. The Terman-Stanford Revision has increased the number of tests to 90, and has extended the scale far enough to measure the intelligence of superior adults. They include tests of memory, language, comprehension, size of vocabulary, orientation in time and space, eye and hand co-ordinations, knowledge about familiar things, judgment, ability to find likenesses and differences between common objects, arithmetical reasoning, resourcefulness and ingenuity in difficult practical situations, ability to detect absurdities, apperception, the speed and richness of association of ideas, the power to combine the dissected parts of a form board or a group of ideas into a unitary whole, the capacity to generalize from particulars, and the ability to deduce a rule from connected facts."

We constantly hear it stated that the child does not do better on tests because his home conditions are so bad. "It is often argued that the child cannot know his age if he has never heard it; that he cannot read and report memory passages if he has never attended school; that he cannot count from 1 to 20, or 20 to 1, if he has never been taught to do so; he cannot name the days of the week or the months of the year unless he has heard others say them." Terman's work seems to prove that a child, even though he has not been to school, would know these fundamental things. A Belgian refugee child of nine years, whose acquaintance with the English language was very limited, earned an I. Q. of 100. A Japanese boy, aged five years, who had never attended school and who had little ability to read English, made an I. Q. of 133. A girl of ten, who had been stolen by the gypsies when five, made an I. Q. of above 100. A child of seven, who had never been in school but who had been trained by his parents to live out-of-doors and to get his training through association with nature, had an I. Q. of 153. Two children, Walter and Frank—aged five and seven respectively—lived in a very poor home. The mother was dull and the father was a drunkard. Both children were adopted by a wealthy woman who gave them every advantage. At the time they were adopted their I. Q.'s were 73 and 82. Four years later, under the best of treatment, their I. Q.'s were 70 to 77.

Terman says: "It is not denied that the cultural status of the home may affect the result of the test to some extent, although the influence has never been accurately determined. It is probable that the cultural status

of the home affects the tests not more than five or ten per cent." Terman says: "The environment of the home affects the results of the test but little." It is further shown by the fact that, occasionally, in a very inferior home all of the children, except one, test low, while the one tests exceptionally high. In one such Portuguese family there were three children who tested between 76 and 88 while one boy tested 130 I. Q.

**3. The Meaning of the Binet Test:** In deciding what value to give to a Binet test it must be realized that these tests have been standardized on hundreds of thousands of children. If a child of four or five or six is not able to do the tests in the age in the scales that correspond to his physical age, that is a very significant thing. Of course, the child must be able to understand English if the test is given in English, and he must be responding as well as he can. Provided that this is so, it is probable that a child who cannot pass the test has some defect—either intellectual or emotional—because these tests are devised to test general intelligence, and, although some of the tests depend on family training, the majority of them depend on general intelligence.

**4. Terman Revision of—Grading the Test:** In each age, from 3 to 15, in the Binet tests there are 5 tests each. The child either passes the test or fails completely. There is no partial credit given. If, for example, a child has to tell the difference between a fly and a butterfly, between a piece of glass and a piece of cloth, and he does one correctly and one incorrectly, he is marked zero on the test. The Stanford Revision starts at the age of 3 and goes to the age of 10, 11 is skipped, then 12, 14, and 16. The tests from 3 to 10 have 6 tests, each one valued at 2 months. The 12-year-old test has 8 tests, each one valued at 3 months. In the Stanford Revision the grading is all or none.

A few years ago Professor Yerkes, professor of psychology in Harvard University, felt that this grading of "all or none" was not quite fair, so he devised the Point Scale. This point scale takes practically the same tests as those used in the Binet scale, starting with the easiest and going to the hardest. In this scale the individual gets credit for everything that he does. In the Yerkes-Bridges-Hardwick book a table is given which describes the qualities tested by their scale. It follows.

TABLE I.

Tests:

1. Auditory memory for sentences, attention.
2. Perception (visual of things, relations, meanings), apperception, association, imagination.
3. Auditory memory for words (digits), attention.
4. Discrimination, (a) visual, (b) and (c) kinesthetic.
5. Motor Coordination, visual perception.
6. Ideation (association and analysis).
7. Aesthetic Judgment involving perception, association.
8. Perception, apperception, visual memory, imagination.
9. Association (free), vocabulary, attention.

10. Analysis and Comparison of remembered objects, attention.
11. Memory, imagination, attention.
12. Practical Judgment involving memory and imagination.
13. Imagination and Command of language forms.
14. Kinesthetic Discrimination, ideation (notion of series), attention.
15. Logical Judgment based on imagination, analysis and reasoning.
16. Suggestibility, visual perception, comparison.
- 16a. Logical Judgment, based on analysis and reasoning. (This is an extra test introduced as a possible substitute for Test 16 at a time when that seemed likely to prove unsatisfactory.)
17. Ideation, involving vocabulary, memory, analysis.
18. Logical Judgment based on analysis and reasoning, attention, memory.
19. Visual Memory, perception, attention, motor coordination.
20. Ideation involving analysis, imagination, command of language forms.

TABLE II.

Mental Processes.	Tests	Credits
Motor Coordination.....	5	4
Perception (Visual).....	2, 8	13
Discrimination (Visual).....	4a	1
Discrimination (Kinesthetic).....	4b & c, 14	4
Association .....	9	4
Suggestibility .....	16	3
Memory .....	11	4
Memory (Auditory).....	1, 3	11
Memory (Visual).....	19	4
Imagination .....	13	4
Judgment (Esthetic).....	7	3
Judgment (Practical).....	12	8
Judgment (Logical) .....	15, (16a) 2, 18	11
Analysis and Comparison.....	10	6
Ideation .....	6, 17, 20	20

(2) See parenthetical remark under 16a, Table I.

In Table II. they show the credits which are given for the various abilities. This Table II. is somewhat misleading for, of course, one cannot test one capacity or ability without testing a great many others. It is only approximately true. One can make as many as 100 points on the scale. This scale has been standardized so that the psychologist knows how many points the 3, 4, 5, 6, etc., year-old child is supposed to make. The Point Scale method takes much less time than the Binet scale, but I think most psychologists feel that it is not so good. Individuals grade much higher on the Point Scale than they do on a Binet scale.

5. Performance Tests: One of the great drawbacks to all scales founded on the Binet system is that one must be able to read and write and must possess speech in order to do themselves justice on the test. The individual must also be able to hear. Moreover, these tests do not test as well as we should wish the practical abilities of the individual. It is there-

fore that certain Performance Tests have been devised. Dr. Healy has devised his Puzzles A and B, his picture-completion test and similar tests. In order to test an individual from every viewpoint it is necessary that we have him do things with his hands. Pintner and Patterson have devised a scale of performance tests for use of the deaf. These tests are 15 in number. Some of these tests are pictures, such as the "Mare and Foal" test, where the head of the mare and the legs of the foal, etc., are taken out of the picture and the child has to put them in so as to make a complete and perfect picture.

Some of their tests are:

The Mare and Foal test.	The Diagonal test.
Seguin Form board.	Healy Puzzle A.
Three-five figure boards.	The Ship test. (A dismembered ship that has to be replaced.)
Two-figure board.	Picture completion.
Casist Form board.	Form Board.
The Mannikin test. (This is the figure of a man dismembered which has to be replaced.)	Cube test.
Triangle test. (This is a divided triangle that has to be fitted back into form.)	

This is an invaluable test used to aid teachers to find out the abilities of deaf children and of those with speech defects. It may be mentioned, in passing, that many children who are deaf or who have a speech defect are considered feeble-minded.

6. Emotional and Other Factors Influencing the Test: Simple as these tests seem to be, a great deal of skill and training are required to give them properly. In the first place the tests must always be given in exactly the same way; the same questions must be asked in the same way; then, too, the psychologist must be able to know whether the answers returned are correct or incorrect. The attitude of the psychologist is of great importance. He must be able to put the patient at his ease, to encourage in the right way without giving hints that will help to bring the right answer. It is very difficult to keep a perfectly objective attitude and, at the same time, show sympathy and encourage the patient to do his best.

The second point to be noted is that very many individuals grade low on the test because they are under a tremendous emotional strain. Adolescents brought into court and examined while under great strain, often after waiting for several hours and, possibly, having missed a meal, rarely do themselves justice. Timid, fearful individuals often make poor scores merely because of inhibitions. Thus we see that the test very often shows the ability of the person to adapt in the emotional sphere, and does not show his innate intelligence. The emotional factor plays a great part in testing children from 3 to 6. The child may be so bashful and timid that he may refuse to co-operate at all, and, therefore, will do very poorly in the test.



Other factors to be considered are: sensory abnormalities—poor hearing, difficulty with the sight, illiteracy. All these interfere with the individual's ability to record his real ability to means of the test. Speech disorders are a very important factor. An individual's record on the mental test is of very little value if the individual suffers from a speech defect. In these cases we have to give the Pintner and Patterson Performance Tests.

**7. Valuation of Mental Tests:** I wish to strongly emphasize the fact that a mental test means very little unless we have all the facts in the case before us. To say that a child 12 years of age has a mental age of 8, according to the Stanford Revision of the Binet Scale, merely means that on a certain day the child made a certain performance, which does not mean that the child is feeble-minded. He might have been sick. He may be slightly deaf, may have a speech defect, may have been under emotional strain; he may have syphilis, may be a deteriorated epileptic, etc. The mental test, then, only has value when we, with the co-operation of the social worker and others, are able to have all the facts before us in making our diagnosis. After all, the mental age which the individual gets is not of the greatest importance, as we pointed out, but the way in which the individual reacts to the test, his co-operation, his emotional reactions, his stick-to-it-iveness. All these things are of great importance; perhaps of equal importance with the patient's mental age.

The psychologist's report, therefore, on a mental test should not only give us the mental age, but should also record the patient's manner of taking the test, and his general reactions.

We may say, then, that the tests of general intelligence are of great, but limited value. They enable us in a short time to do what it would take many days to do through general observation, but they can never take the place of a careful analysis of the family and personal history. They cannot supersede the knowledge to be gained from the teacher and from the psychiatric examination, which includes a study of the patient's behavior in general.

**8. Emotional Tests:** It is very difficult to test the emotional life, but an attempt has been made by several psychologists. In the high-grade mental defective, as well as in the border-line and dull-normal individuals, it is very important that we get some insight into the emotional life. The Jung Association Test is one of the best means to test the emotional life of those who have average or superior intelligence. One of the most interesting of the emotional tests is that devised by Pressey of the University of Indiana, called the Pressey X-O Test, consisting of four tests. Professor Hollingsworth has, also, devised a test for the emotions. It is in the form of a questionnaire about the patient's interests.

**Mr. Wheelock:** I want to say that that is one of the most practical, comprehensive and enlightening talks I have ever heard on this vitally important subject. I think it ought to be discussed by this conference from every angle; and I know Dr. Blanton would be pleased to answer any ques-

tion you put to him. He goes right to the point. While I am not reflecting on any other person who has spoken on this subject in the past, it appeals to the ordinary, every-day man who does not have the opportunity to study this question except from every-day contact. I wish you would get into a very serious and earnest discussion of one of the most vital problems which faces social workers in the whole universe.

I want to thank Dr. Blanton on behalf of the conference for this splendid practical presentation.

**Arthur F. Kilbourne, M. D., Rochester State Hospital:** I should like to ask the doctor a question. In following out these cases as they go through life, would you use that test as a prohibition against marriage? Suppose we had a law against the marriage of defective individuals. Can you use that test and say: "We will not allow that individual to marry and have children?"

**Dr. Blanton:** That raises a very difficult question, one to which I do not feel capable of making any dogmatic reply. My general feeling about such a question as that—I make it in all modesty; I may change my views some years from now—is that I would not use the test alone as a criterion as to whether or not a person should marry. I think you would have to make a diagnosis of feeble-mindedness before you would say a person could not marry. That can never be made on a mental test alone. I think Dr. Fernald's ten different points are very good. He made his test on different points: the family history, whether it was good or bad, the school record, the behavior of the person in social life, his capacity to get along as far as delinquency was concerned, his moral reactions, his ability to hold a job, to make a living, to care for himself unsupervised, etc. The mental test, in Fernald's judgment, was only about one-tenth in making this diagnosis. I do not want to make any such percentage as that, but the mental test would be only a small part of an examination. You would have to say a person was definitely feeble-minded before saying he should not marry. The mental test alone is not sufficient.

**Dr. Kilbourne:** You speak of being able to make a living. Many feeble-minded people who should not have families are able to make some sort of a living. I should think the test might be valuable. If an individual shows a mental age considerably below his chronological age, wouldn't you consider him feeble-minded?

**Dr. Blanton:** Yes, but I shouldn't unless the test checked up with other things. There might be some other reason why he tested only four years mentally. If his whole behavior was four years, you would know he was feeble-minded. If a child makes a mental test of 30, you would know he was feeble-minded. We know the imbecile should not be allowed to propagate. It is only in the upper grades where they can make a living that we are going to find it difficult to know whether or not we should allow them to propagate their kind.

**Galen A. Merrill, State Public School:** Is it possible to draw a definite line between a normal person and a feeble-minded person?

Dr. Blanton: You ask me some very difficult questions. I am just as much at sea as some of you people are. I can merely give you my conception.

There is the psychological conception and the psychiatric conception. The psychologist's conception is expressed by Mrs. Hollingworth in her book: If you examine any series of qualities in a person you will find that people group themselves into the middle and spread out at both ends; that in your intelligence test you find the same thing—some are dull, some are bright; some are stupid, some are clever; some are feeble-minded, some are brilliant. She maintains that the feeble-minded are merely normal variations of people; but Dr. Tredgold, probably one of the greatest experts in the world, an Englishman, with whom it has been my good fortune to work, clarified very much my conception of the feeble-minded when he said he thought a feeble-minded person was an abnormal person and not a normal variation of the normal group. Here is an idiot. It certainly is not a normal variation. Here is a low-grade imbecile who can just make a few grunts and has to be cared for like a baby. You certainly wouldn't say he was a normal variation.

When do you get what we call a normal variation? When do you first get an abnormal variation? Tredgold says it is very difficult to draw the line. He maintains if a person is feeble-minded he is abnormal; but he is merely a normal variation if he is what we call a dull normal. It is very difficult to decide where you leave one and get the other. But on the whole it seems to me that is rather a clearer conception than that of the psychologists.

People who are working along the physical side are beginning to feel that certain feeble-minded children have certain anomalies of physical make-up which put them in the abnormal class. Although an ordinary physical examination shows them to be all right in every way, a more subtle examination will show them to be abnormal. A feeble-minded person is an abnormal person, I think.

Charles F. Hall, Children's Bureau: Referring to Dr. Kilbourne's question as to marriage, if a person has an intelligence quotient of 60 to 65, not considering other qualities, do you think that person should marry or reproduce?

Dr. Blanton: I think that is a matter to be decided by social investigation, a matter for social workers rather than for a physician. I simply don't know. That leads me into obscurities that I can not fathom. I think if that was to be decided we ought to have a very thorough investigation of the whole question.

Fernald says that our old idea of the Mendelian law as regards human heredity is knocked out; it doesn't work. Jenkins says the same thing. Tredgold says if all these feeble-minded persons produced according to the

Mendelian law you would have nothing else but feeble-minded. Fernald says, on the other hand, there are some ten million feeble-minded carriers in this country who are intelligent. Let me give you an example.

A boy was brought to me from the juvenile court whose mental age was 7½ years. He was 18 years old. When he was 16 he took liberties with a little girl of three and they put him in a psychopathic hospital. He was paroled after a year. The day he got out he chased a girl down the street and they took him back. He had been making three dollars a day before he went to the hospital. He had the sex feeling of a grown man and the mind of a child. I advised them to castrate him to make him safe so that his mother would get the benefit of his labor. He had a sister who was a private secretary, a very brilliant girl. There was nothing abnormal about the boy physically. This sister was certainly a feeble-minded carrier if the boy was. She was a carrier of intelligence as well as feeble-mindedness. The boy's germ plasma was presumably as good as his sister's.

Then, of course, we need a great many people of low intelligence to carry on our industrial work. If we breed out all the dull ones, where are we all going to be?

Of course if you brought a case to me with a mental age of seven or eight years, I should say, "Don't let him get married," but you ask me about some legislative policy. I think we very often rush into these things inadvisedly, before we get all the facts in the case. We certainly are keeping a lot of people alive who are not fit to be alive. How are you going to meet that? I think it is going to take some very careful study. Snap judgments won't work.

Chas. E. Vasaly, Minnesota State Reformatory: Do you think, for the benefit of those in charge generally, it is advisable to have a race of feeble-minded industrial slaves?

Dr. Blanton: That is not a medical problem.

Dr. Kilbourne: The doctor made one remark that impressed me—there were several, but there was one in particular—the fact that as you are born so is the degree of your mentality throughout life. You can't any more add a convolution to your brain than you can add a cubit to your stature by taking thought.

Dr. F. Kuhlmann, Director of Research Bureau: The doctor has given us a very clear statement of the point of view taken and methods followed in most medico-mental clinics throughout the country. He has told us of the various mental tests used, including the Binet, has stressed the use of tests of the emotions, the medico-physical examinations made, and use of histories. All these were characterized as valuable aids in making a diagnosis. I differ from him radically in point of view, and in what is useful and worth while doing with the great majority of cases that come to a mental clinic. He places far too little importance on the mental age and

intelligence quotient as determined by a careful Binet examination, and much too much importance on the results of other mental and emotional tests and the rest of his comprehensive but misleading program. Psychologists have been flooding the market with all kinds of tests of special mental functions, special mental abilities as well as of acquired abilities in trades and occupations. Very little of this has as yet emerged from the experimental stage, and it takes a wise man indeed to pick out from it all the few things that may be of practical value in a mental clinic.

The attempt to test the mental functions separately, instead of the workings of the mind as a whole, is a reversion to the time before Binet. Binet's chief contribution was the idea of measuring the mind as a whole instead of in parts. He, with others, had failed repeatedly to produce anything of much practical value, attempting to do it the latter way. Then he was called on to use his skill in the practical work of selecting the mentally defective children in the schools of Paris from among the normals. He changed his point of view, and produced the 1908 Binet scale of mental tests. In this he proposed to test mental ability much in the same way as a layman would determine the time-keeping qualities of a watch. If you have a watch and want to learn how accurately it keeps time, you simply let it run and compare it with some standard timekeeper. The Binet tests give the person some mental tasks to do, and then compare the score made with the average scores made by children of different ages, these average scores being the standards or norms. If you were an expert watchman, you might take your watch apart, examine each wheel, shaft, and bearing, and come to some conclusion as to the timekeeping qualities of the watch. But as practical, common sense men you would not hesitate a moment in accepting the result of your testing of the watch by comparing it with a known standard timekeeper as of much greater reliability than the conclusion of the expert watchman. So it is with testing the value of the mind in enabling its possessor to meet life's requirements. You can not do much by attempting to test its separate parts or functions. But you can give it work to do in the performance of which most or all the mental functions enter, and then note the results. The former is Dr. Blanton's procedure in part; the latter is a Binet test. The Binet examiner is *not interested in how his subject does a thing, what mental functions come into play.* He does not care whether it is memory, attention, emotions, or something else that makes him fail or succeed. He wants to know only the degree of his success, which is then expressed in terms of mental age. For mental age gives him definite information, and of the kind he wants. It indicates chances of success or failure in the every-day activities of the child in school and of the adult on a job.

I said that most of the tests of special functions or abilities were still in the experimental stage. We do not yet know that they really test what they propose or claim to test. There is a test of mechanical ingenuity, so-called, wherein the subject is asked to put together the parts of various mechanisms, such as a lock, a bell, and so on. But it has not yet been

shown that the results of this test tell us very much about the kind of a job a person tested is most likely to succeed in. The doctor also showed us some tests that are called tests of the emotions. But whether they really test the emotions more than something else, or if they test anything well enough to be of practical value, no one yet knows. I can not agree with him that the use of these tests and similar ones in their present stage of development can be of great assistance in a mental clinic.

There is a further objection to using any assortment of tests now available and attempting to come to some conclusions about the subject examined from the array of results of the different tests. They are not in forms so that the results can be combined objectively. We can not add them up into a single score to which a definite meaning is attached. It brings in again the examiner's personal judgment; and how the subject will be treated and disposed of will depend again on that judgment, always unreliable, lacking in uniformity, and resulting more or less frequently in extreme errors. It brings back again into the mental examination the very factor all mental tests aim chiefly to eliminate.

There is one special statement the doctor made and stressed, it seemed, to which I want to take exception particularly. That is the statement that you can not make any diagnosis on the basis of a mental age and I. Q. alone. I object to the statement taken literally and to what it implies. The statement is entirely too broad and incorrect in too many cases. The M. A. and I. Q. obtained with the Binet tests give us the present mental level of development and grade of intelligence more reliably than they can be gotten in any other way. That is what they are for. If they fail in this, why waste time in giving them at all? A little additional information to be obtained from histories and school records, and hardly ever with any definite certainty from present medical examinations, will tell you in the vast majority of cases whether the present mental condition is the result of a retarded rate of mental development, mental deficiency, or of a mental deterioration indicating mental disease. The I. Q. alone obtained in childhood and later would do the same thing. M. A. and I. Q. plus this minimum of additional information thus discriminates between mental deficiency, mental disease, and mental normality. Nothing else the doctor has in his program can make the diagnosis more positive or more reliable. A medical examination and an inquiry into history may reveal causes, and, in case of mental disease, may make the diagnosis of mental disease more specific. But it can add nothing to the diagnosis in mental deficiency. Given a patient with an I. Q. of .50 and a history indicating mental deficiency in childhood, why ask about his physical condition and diseases he may have? We have not yet heard of a case where medical treatment improved the I. Q. in any material degree. I do not mean by this that a medical examination in such cases is out of order. I mean that it can not add anything to the diagnosis. The examination may reveal the need of medical treatment to restore health, but that is quite another question. The late W. E. Fernald, the guiding spirit for a generation in the field of mental



deficiency, and himself a physician, repeatedly stated that mental deficiency is "a mental condition and not a disease." We can not determine the nature of that condition by a medical search for causes. It is a psychological problem, and the I. Q. is the answer.

Dr. Blanton's point of view is that of the psychiatrist in the field of mental disease, which becomes a decided misfit when carried over into the field of mental deficiency. Some of his conclusions, emanating from this point of view and applied in the latter field, I can not subscribe to. I do not wish to speak for the psychiatrist in his own field, but even here I will venture to advise that he will get along quite as well if he will omit from his program practically all of the mental tests other than those of the Binet type with which psychologists have been experimenting and many of which are offered for practical application in mental examination. In the case of a mental clinic dealing only with mental deficiency cases, much more still should be eliminated from the program, as I have indicated. I am directing such a clinic and have been trying to follow every detail of development in this field the past twenty years. But I am firmly convinced that we would do worse instead of better if we attempted to follow Dr. Blanton's program with our cases. We stress the I. Q., but are particular about who gives the tests and the circumstances under which they are given. We try to get enough additional information about the earlier mental development of adult cases to determine whether or not we are dealing with a case of mental deficiency or mental disease. If any evidence of mental disease appears, we refer the case at once to a psychiatrist. If the case presents behavior problems, we inquire into the conduct history before making recommendations. That essentially is our program. Incidentally, we keep the per capita cost per case well below five dollars, counting in all costs and expenses in maintaining the clinic. Should we follow Dr. Blanton's procedure for our cases, that cost would probably mount to well over a hundred dollars per case, and the public would get poorer services at that.

Dr. Blanton: In replying to Dr. Kuhlman's remarks, I should say that he misunderstands me when he assumes that I would attempt to test the mental functions separately instead of the working mind as a whole. He speaks of the increased expense necessary in testing children if the plan which I advocated, of a complete test, were carried out. It is true that it would cost more than merely a single Binet case, but we must consider this: An institutional child costs the state several hundred dollars a year; if only a few children were unnecessarily sent to institutions, the cost would be almost enough to give a great many complete psychiatric examinations.

Dr. Kuhlmann's insistence on the infallibility of the Binet test is not shared by such psychologists as Terman, Thorndyke, Yerkes and others. Dr. Gesell, psychologist and physician, and professor of Child Hygiene at

Yale, expresses the opinion of the majority of psychologists and psychiatrists so well, that in closing we shall quote what he has to say in his recent book, "The Mental Growth of the Pre-School Child," page 358:

"The task of clinical psychology is to aid common sense, not to displace it altogether. Psychometry has not yet attained that pitch of perfection and range of application that a mental measurement can be accepted or utilized without a qualifying judgment.

"If psychometric determinations, including intelligence ages and intelligence quotients, were not so liable to misuse, strictures would be gratuitous. But these numerical indicators have actually been incorporated into legislation, and into administrative regulations relating to the detection and care of the feeble-minded. For this reason it is not superfluous to insist that there is a difference between a mental measurement and a mental diagnosis.

"I may cite an instance which recently came under my observation and which illustrates well the difficulties and disadvantages of precise I. Q. regulations to determine assignment to special classes, institutions, etc. It happens that two dependent girls, who were sisters, came to the clinic one morning for mental examination; one proved to have an I. Q. of 69 and the other an I. Q. of 70. The assumption that this difference of one I. Q. point established a real differentiation between these two girls is, of course, absurd. As a matter of fact, all things considered, personality traits as well as mental quality and mental level, the girl with the lower I. Q. is superior to the girl with the higher I. Q. Yet, if a recent regulation of the institution for dependent children, recommended for these girls, is strictly enforced, the girl with 69 I. Q. cannot be admitted whereas her sister may. Irrespective of the fact that these two girls ought not to be separated, this distinction operates in a very undesirable manner. **THE I. Q. DOES NOT HAVE SUFFICIENT CLINICAL VALIDITY TO BE MADE THE BASIS OF ADMINISTRATIVE REGULATIONS.**"

Blanche L. La Du, State Board of Control: Mr. Chairman and Dr. Blanton: We have been given the psychiatrist's point of view and the psychologist's point of view with regard to mental tests, and if from the psychiatrist's point of view the psychologist's tests and findings are not going to be a guide for us, how are we going to settle the status of the individual to be classified? Must we, in spite of these tests, finally resort to the judgment of the ordinary layman?

We are often obliged to pass upon the fitness and ability of individuals without these tests, especially in selecting persons for various positions. This is usually decided by consideration of the way in which the individual has been able to adjust himself to life in general. As I understand Dr. Blanton, the psychologist isn't going to be able to help us with his mental tests except to make the finer gradation when we get into the borderline cases; we must finally draw our conclusions from the individual's adjustment