

THE COOPERATION OF PSYCHOLOGIST AND PHYSICIAN

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In the last few years much attention has been directed toward finding ways of helping the child who is atypical from educational and social standpoints. For this purpose clinics and child study departments are being rapidly established for the purpose of analyzing and helping the defective, the delinquent, and in one or two places, the super-normal child.

The technique for this work is still in the making, though much has been or is being worked out by those interested in the application of psychology in the study of social conduct. The following report of cases is made for the purpose of showing how the practical child study psychologist may be of value to the physician in the diagnosis and educational care of certain types who seek medical advice. The parents of atypical children have always consulted the physician, but he can help them further than his medical knowledge permits only in so far as he is an educator and psychologist. It is not necessary to say, on the other hand, that the psychologist is often at a loss without the help of the physician.

The cases which are here reported are part of a work undertaken by myself and the late Dr. D'Orsay Hecht. The first intention of the work was to make type classifications from the medical and psychological standpoints jointly of atypical child cases seeking medical advice. The untimely death of Dr. Hecht has stopped this work in its broader aspects, but the preliminary report which had been previously agreed upon is partly embodied in this paper. Each case reported falls readily into a class which has come to be rather definitely defined in my own experience.

In approaching a problem case of the kind which may be referred to a child study specialist as distinguished from the neurologist, certain factors which singly or in combination may be the exciting cause of atypical reaction to educational or other phases of social life should be kept in mind.

First, the child may be possessed of some degree of mental de-

fectiveness. The high-grade types of mental defect often go unrecognized by family and teachers. Such was the case with Case 2 described below.

Second, the child may be suffering from certain physical defects such as poor vision, poor hearing, adenoidic growths, poor nutrition, nervous disturbances, etc. Sensory defects go unrecognized often for long periods. The child who possesses them does not receive the same stimuli as the normal child and therefore reacts in a different way than is usual or normal with consequent disapproval on the part of those about him.

Third, the child may have acquired a special set of interests and in his devotion to them makes no effort to carry out other requirements of conventional social life.

Fourth, the cause of atypical reaction may be due to certain factors of personality, the positive causes of which in turn one may or may not be able to determine. There are children so unresponsive in disposition that they make little or no effort to respond to the demands of the teacher and certain ones of the home though they are mentally capable of doing so. Under this head may also be included those cases of great diffidence with which there is a desire to respond but accompanied by lack of confidence in one's ability to respond correctly and consequent lack of initiative.

In the accomplishment of the first part of our task, determining the mental ability, one may keep in mind the following general considerations: The extent of the acquisition and use of language; the acquisition of abstract conceptions such as color, number, etc., and the normal ages of such acquisitions; the ability to gain certain tools for mental expression such as the processes of reading, writing and arithmetic; and finally the ability to use such tools in thinking ways—in short, reasoning ability. Since the material for the reasoning process is knowledge, use may be made of whatever knowledge one finds the child possessed of to test his ability to reason by stimulating him to combine his knowledge items into new forms. Necessarily, then, the methods of examination must differ for individuals of different age and social and educational opportunities for gaining knowledge. The descriptions of the cases here reported show how advantage was taken of the individual interests and mental acquisitions of the patients to determine thinking or reasoning ability. The person who is markedly lacking in such ability can cooperate successfully in normal social life to only a very limited extent. If his limitations are not understood by those about him and allowances made for them much harm may result.

With this short account of the principles underlying successful analysis of atypical social reactions other than those of the insane, we may proceed to describe their application to the following cases.

CASE I. B. N. was a little girl of nine when first seen by Dr. Hecht and myself in March, 1913. The following account of the immediate occasion for the calling in of the doctor is taken almost verbatim from his record. For the two days previous the patient at irregular intervals and without provocation had forced the index finger of one or the other hand well back into the pharynx with enough force and depth of penetration to cause suffocative symptoms and apparent brutality to the throat. This had been oft repeated during the last twenty-four hours, causing fear and panic in the parents, who removed the finger to prevent apparent asphyxia. While the child was being examined in a sitting posture, it made the finger penetration in the throat as though unable to resist the obsession, at the same time with what was very apparent, a pelvic rocking and thigh friction movement of masturbation variety accompanied also by a hand movement which could be construed as scratching of left inguinal region. The nurse stated that when at the stool, the child would rub her genitalia. The mother had never observed anything which would lead one to suspect masturbation. The mother is a very intelligent woman and the child had always been home treated and controlled. A week before the gagging episode a younger child had had tonsils removed. The patient had heard much talk about this. The parents were much concerned about this child, who, being always very healthy, had had much less attention in the home circle than the patient.

Physically this patient presented a frail appearance though about normal in height and weight. The gait was spastic-ataxic, that of a diplegia. There were choreatic movements of both hands. There was a cerebral diplegia, a generalized mild rigidity but more in the legs. The vasomotor trophic system was a little but not much impaired. The sensory system was normal. Superficial reflexes were all exaggerated. A Babinski reaction was obtained on the right, but uncertain on the left. There was a slight drooping of the upper eyelids. The reaction of the pupils to light and accommodation was somewhat sluggish. There was a tongue tremor of choreiform character and a slight speech defect accompanying this. Abdominal reflexes present. In all other respects the child was normal. Dr. Hecht advised that the child be carefully observed for masturbatory practices; that a mental examination be made to determine ability and possibilities of education; and that the child be put through a system of training and control. It was my good fortune to have the child referred to me for the carrying out of these recommendations.

I found in B. a very nervous, though bright and animated-appearing little girl. Except for the rigidity of the limbs, the slight speech defect, and the somewhat husky voice she was not especially abnormal or displeasing in appearance. Emotionally she was very unstable, laughing and crying easily. She was exceedingly affection-

ate, though this did not take the form of caresses. She was very anxious to please everybody about her. Because of her physical frailties she had all her life been the center of concern in the family life. Many medical specialists had been consulted and the family were keeping up the policy of consulting every specialist from whom they had any reason to hope for help. The one other child, three years of age, had up to this time been healthy and had never been of special concern to the parents. The mother had given up almost her entire time to the care, amusement and education of our patient. Though the younger one shared normally in the family life, when a new tutor or nurse was engaged or any other enterprise was considered, it was always with reference to the needs of B. who was always quite conscious of this. I found that though she was very considerate of the happiness of those about her she became uneasy if for more than a short period of time, she was not the center of the stage. At one time when I was there for the purpose of conferring with the mother about a school for her, the talk strayed somewhat from the immediate subject and she brought us back by saying, "Now Mamma let's talk about me." Though obedience was compelled by the mother in essential matters such obedience as entailed self-control upon the part of the child was very difficult to obtain. For example, during our conference she was told to remain out of the room. She went but would return every few minutes to claim attention.

Those elements of the child's history which concern us now were clearly recounted by the mother. She had tried to enter B. in various private schools in the city and had been refused because of her physical condition. One principal said in the child's hearing, "I could not think of having so nervous a child in my school. It would have a bad effect upon the other children." B. was very anxious to go to school and had many fits of crying at being denied. She could not join in games with other children, and would come crying to her mother and say, "Oh, why am I different from other children?"

The mother was concerned with what she feared were immoral tendencies on the part of B. At table she would at times wantonly knock over the glass of water near her; she would deface walls by tearing off the paper; she would at times preface such activities by saying, "Mamma, I'm going to do this just for pure devilment."

In the account of the process of arriving at the type of diagnosis for which I was employed, I shall notice first the very abnormal phenomenon of the finger insertion in the throat. The theory that Dr. Hecht advanced was of a possible masturbatory complex. However, before I saw the child the mother and nurse had talked to her about this matter with the usual show of feeling accompanying the idea of masturbation, and I could, therefore, get nothing from the child but tears and protestations and promises of future good behavior whenever the subject was approached with sufficient definiteness to make sure of any conclusion. It is my opinion, since observing the outcome of this case, that if a mas-

turbatory complex existed it was not set off in the child's consciousness in such form as to respond to introspectional analysis, and that it was not the cause of her action. A second theory arose with the mother's account of the child's sex knowledge. B. had discovered the relation existing between nausea and pregnancy and remarked upon an occasion of illness of the mother that mamma was vomiting and would now have a baby. It was considered that B. may have thought it possible to produce pregnancy in herself by vomiting, but this as a cause had to be given up upon further investigation.

In my opinion, the most probable reason for the child's action lay in her rather extreme egotism. The young sister at this time was ill with a throat operation and was usurping the place in the family life always held heretofore by B. The operation had been much talked of and much concern expressed for the little sister. B. was temporarily forgotten. The injury to her own throat was the final result of the child's extreme desire to occupy the attention of the parents. By this I do not mean that the occurrence was consciously planned to that end, or if it was that the steps between the motive idea and its attainment were retained in the consciousness of the child. This point need not be elaborated to the student of abnormal psychology. It is sufficient to say that after this period the act was never repeated. A fuller training and more satisfactory social life were soon instituted for B. and much of her egocentrism disappeared.

On the mental side this child had given various observers the impression of a measure of defectiveness. This was perhaps due to the fact that the poor motor control prevented her from undertaking the normal child's usual activities. She could do little with her hands, and could not join in games pursued by children of her age. Concerning her mental abilities, I quote from the report made to Dr. Hecht after my examination. In this report only those tests are described as most adequately exhibited the child's mentality.

"Reporting upon the psychological examination of B. N. beg to say that I find her in all respects as regards innate mental ability quite in agreement with the average child of her age. She shows learning ability of the sort usual to her age and the ability to work over the content of things already learned into new forms. These abilities are shown as follows:

"She has learned to read and possesses this accomplishment to about the extent of the child of the second grade in school. She has gained a knowledge of phonetic values, so that she can work out the pronunciation of unfamiliar words for herself. She can hear a story read of at least three pages in length, and of rather a complex nature and reproduce it orally in a few words, with the essential items of the story retained and the nonessential ones omitted. These last two mentioned abilities in connection with reading, defective children of her age do not possess.

"She has been taught simple addition number combinations. She can make new combinations on the basis of the familiar ones without having to go through the laborious process of counting from

one to the required sum or of having to be taught the new combination outright, as is necessary with the defective child of her age. For example, she did this: I asked her to tell me what was 9 and 6. After a moment of thought she answered correctly. I asked, 'How did you find that out, you did not already know it?' She said, 'I know that 10 and 6 are 16 and 9 and 6 would be 1 less.' She learned quickly the meaning of fractional parts other than $\frac{1}{2}$, which she already knew, and then could find $\frac{1}{4}$, etc., of quantities under 20. She could then work out such problems as: If you had 12 cents and spent $\frac{1}{4}$ of your money how much would you have left? This is perhaps sufficient to show her ability to reason and learn.

"In some respects she shows a rather curious inability. I gave her the first four of the tests described by Healy and Fernald in their monograph on 'Tests for Practical Mental Classification.' These tests involve judgment of spatial relationships. Normal children of her age are able to do the most difficult of these tests with little trial and error, that is, they are able to see the right relation between the pieces to be placed together and make few errors in accomplishing the task. Her work showed no conception of such relationships and her final accomplishment of the task was due to chance. She was able merely to keep the object of her effort in mind and to keep at the task until she had found the right combination through having tried out all possible ones. She learned from her efforts, however, and was able to do the tests a second time immediately after their first accomplishment with much less error, though this learning was not as thorough as that of children of six years who must do the tests at the first attempt in the way that she did. Her performance of these tests was much like that of the defective child of her age, with the exception that the defective child learns the tests less readily.

"I believe this defect in the learning of spatial relationships is due to her defective motor control. She has never gotten a motor idea of small spaces such as control of the finger muscles would enable one to get, and because her hands and fingers have never carried out with any degree of perfection any of her purposes in which that sort of motor control was necessary, she has a sort of mental confusion when doing any thing which requires it.

"Mrs. N. tells me she sometimes shows destructive tendencies, such as tearing paper from the walls or shoving the dishes about at table, etc. I saw nothing of those things while with her. She seems socially responsive and affectionate. The explanation for such apparently immoral tendencies may lie in the fact of her poor motor control which does not permit her carrying out any constructive motor process requiring skill and she then does the thing she can do, which is only to push and shove."

B. was placed in the second grade of a private day school in April. The principal and the teachers were sympathetically and intelligently enlisted in her behalf. The school recommendation was made for the purpose of giving the child a more normal environment, educationally and socially considered, to give her association

with other children, to give her an organized outlet for her very active mind and a more scientifically directed education than was possible for her at home. It may be remarked that the school has been founded for the purpose of making application of the best in professional educational thought. It was hoped that this procedure would remove much of the child's egotism and by giving organized outlets for activity, discourage her hysterical tendencies. These expectations have been abundantly justified by the results.

During the early part of her school life there occurred one incident showing her tendency to abnormal emotional reactions. She became frightened by a death scene in a play given at the daily assembly period and was led out screaming. She steadfastly thereafter refused to go to daily assembly. Her teacher had left off urging her, hoping that in time the fear would be forgotten. She was advised that that probably would not be the case. This incident will be referred to again.

B. was passed to the third grade at the end of the year. She is now in the fifth, but needs more help than the normal child to accomplish the work. She is not capable of as prolonged application as other children and her difficulty with writing makes it hard for her to do school work in the usual way. Her progress during her first year may be best summed up by quoting from a report made after an interview with her third-grade teacher.

"Miss L. says that the little girl is doing brilliantly well in the work of the school. She considers her, intellectually, the most brilliant child she has. She has improved so much in her ability to walk and move about that this year she is given no privileges over the other children in marching, etc. She keeps up with them and needs no looking after. She has had the work in the gymnasium regularly and shows great improvement there.

"In a test with the other children of the room in paper napkin folding, she showed an ability not below that of the average for the room, showing that she is able to use well the larger arm muscles. She has, however, made no improvement in the use of the smaller finger muscles, as is shown in her writing. She has as much difficulty now with her writing as she did at the beginning. Miss L. would like some advice on this point.

"You will recall that we are told about her fear of going to the morning exercises upon our visit to the school last spring. I remember that you told her teacher that this fear would not be forgotten but that it would have to yield to disciplinary treatment. This has proved to be the case. She began school again with that fear of going to morning exercises but after being compelled to go by her teacher, has gotten over it and now goes willingly. Her teacher is planning some special types of hand work for her."

Upon a recent visit, I found the child normally composed and controlled. At her mother's request she left the room quietly and remained away during our interview. The mother says she is much less unstable emotionally, though she is still so to some extent. She is receiving the usual educational training except that fine

types of manual work can not be acquired. To alleviate the difficulty with writing she is being taught to use the typewriter in which she is becoming proficient.

This innately brilliantly endowed child has been saved to a happy life for herself, for her family and possibly in the future to society by a fortunate diagnosis and educational opportunity.

CASE 2. C. D. was a boy of fifteen when seen in December, 1913. The physical and medical aspects of this case were summed up by Dr. Hecht in a report to the psychologist of the institution to which C. was sent a few weeks later. I can do no better than to quote this verbatim:

"By way of a brief résumé I should say that C. is 15 years of age, born of Jewish parents, and at present attending school in the sixth grade. The family history without going into great detail is not good. The paternal grandmother was regarded as mildly insane; an uncle on the paternal side is alcoholic and an aunt is very eccentric. The father and mother, and I should say all of the members of the family, including a brother and two sisters, are all of the neurotic type. On the physical side, the boy is now well grown; he has a sallow, muddy complexion and a facial acne; his hands are flabby, clammy with cold, and show marked sweating amounting to more than moisture, and the vasomotor instability in the extremities amounts to wet hands; there is a slight hypertrichosis on the chin; no axillary growth and an abundant supra-pubic amount of hair; descended testes; large genitals for that age. The thyroid is small but distinctly palpable; the pulse is about 100; the blood pressure is low—95 to 100; the tendon reflexes are brisk but not associated with any definite spasticity. The whole physical picture is reminiscent of polyglandular disorder."

I may add in addition to the hereditary account that the adult members of the family are doing well in professional life. The father and brother are lawyers. The latter completed his college course with honors. The two sisters are teachers.

A complete history of the trouble this boy has given his family and the schools he has attended would fill many pages. He began to show backwardness in acquiring school subjects at the beginning of school life at six years of age. He was reported as uncontrollable and troublesome in the school, annoying especially by much talking, which was senseless in character. He had been tried in several schools, public and private. At the time of my examination he was at home attending a public school, in the sixth grade and with a private tutor who helped him with his lessons every day. The year before he had spent in a private tutorial school designed for troublesome boys. In this school the life was largely out of doors under careful surveillance and here he did fairly well. His family thought him so much improved by it that he was again tried in the home. During the last few months he had, however, become so much more troublesome that help was again sought.

It may be pointed out here that much anguish and shame might have been spared this family had it been possible to obtain a correct diagnosis of C.'s mentality earlier. The attempt was made by

a certain child study expert to examine the boy at ten years of age and by another at twelve. Both reported that the boy would not submit to tests but both thought him not mentally defective, but much spoiled by unwise home management and in need of disciplinary treatment. The parents and schools had regulated their treatment and set their attitude toward the boy in conformity with these opinions when, as will be shown below, he was really a high-grade mental defective.

C.'s offenses at the time of my acquaintance with him included asking friends and strangers for money which he spent on candy and sodas; bothering his sisters and others with caresses and kisses; flying into a passion for the most trifling matters and using abusive language; making a nuisance of himself generally at the drug store in the neighborhood and in the houses of friends. He would leave notes in the rooms of his sisters signed with a fictitious name, asking for a clandestine meeting. One note written to his brother reads, "Dear S. I thought I would write you and tell you something. I have been thought of stealing 45.00 from a Mr. Green. I wish you would be at court Monday, Nov. 30th. I know you don't believe me guilty. I wish you would help me out. Your friend, Joe Jackson."

I found C. a well-developed boy, slouchy in attitude and boorish in manners. His appearance was in marked contrast with that of his brother and sisters, who were alert and cultured. His immediate acquiescence to my examination was gained by the father's mild fiction that I had come from the school to see if he could be helped to pass to a higher grade. He soon became much interested in the tests given him and very compliant and responsive. In conformity with the implied reason for my presence I began his examination with a review of his school work. The results were reported as follows:

The examination was begun by asking C. about his school work. He said he was best in geography. His lesson for the next day was a set of review questions on the work of the previous week in the test. He said he could answer some of the questions and some he could not. It was found that the questions which he could answer were such as could be learned by the method of rote memory—for instance, *Name the South Central States*. Questions or problems for solution which were not capable of being gained by such a method he could not get. One such was, *Trace the route by which beef packed in Kansas City may get to market in New York*. He said of this, "The teacher explained it all, but I didn't understand."

To sum up the conclusion gained from the work in geography he shows a lack of ability to do constructive thinking with facts which have been presented to him, but a fair ability to do the work which requires mechanical memory only.

In arithmetic he shows the same type of mental action as in the geography work. He can do some types of arithmetical processes for which he has learned formulas. He applies these formulas in a perfectly mechanical manner. He solved this problem: *If 5 pencils cost 10 cts. what will 3 pencils cost?* " $\frac{3}{5}$ of 10 cts., 6 cts."

Then he applied the same formula to a problem of a different sort, getting a very absurd result. He could not be brought, after much discussion of the terms of the new problem, to see the absurdity of his method or result. He said: "I don't know why it's that way, we had some problems like that, I think we worked them that way." He can do the types of problems in division of decimals for which he has learned a formula—his class in school is now working in decimals—but he has no conception of the meaning of a decimal fraction. He does all arithmetic work in a slipshod manner—makes absurd errors in long division, for instance, and can find no errors when told to go over the work and look for them.

He worked on the following problem: *If there are 5 boys in this room and 3 boys in the other room, how many boys will have to be sent from this room to the other room so that there will be the same number of boys in each room?* We discussed it together over and over, but he could not solve it.

His reading is good with respect to pronunciation of words but poor with respect to reproduction or ability to gain ideas through reading. He read the following selection taken from a fifth reader used formerly in some of the Chicago schools. *It was in the spring of the year 1826 when Mr. Amos Bliss, manager and one of the proprietors of the Northern Spectator, might have been seen in the garden behind his house planting potatoes. He heard the gate open behind him and without turning or looking around became dimly conscious of the presence of a boy; but the boys of the country wil-lages go into whosoever garden their wandering fancy impels them, and supposing this boy to be one of his own neighbors, Mr. Bliss continued his work and quickly forgot that he was not alone.* His reproduction was: "It was about a man planting potatoes in the garden and he was conscious of a boy watching—and I forget the rest." Normal children of fourth-grade age and attainments are able to reproduce most of the items of thought in this selection in such language as is essential to clear understanding. His performance was in quantity about one fifth of what can be obtained from the normal ten-year-old child.

With Cross Line Test A $\left(\frac{\sqrt{1}}{2\frac{1}{3}}\right)$ of the Healy-Fernald series he failed utterly. It was only after the fifth attempt that he could learn to draw and correctly number the figure from memory—immediately after having looked at the original. This is a typically subnormal reaction.

In performing Test I of the Healy-Fernald series, he made 10 errors with the body of the puzzle and failed to reconstruct the divided triangle. Kindergarten children perform the test with less than 5 errors and accomplish the triangle.

With Test IV of the Healy-Fernald series he failed six times, with the puzzle board placed alternately right side up and upside down, to construct the puzzle, though after each failure he was shown how to place the pieces properly and allowed to do the placing himself. He never could readjust the placing of the pieces to the changed situation when the puzzle board was presented to him

upside down with reference to his immediately previous experience with it. He invariably placed the pieces at the top which came at the top previously, rather than with reference to the opening to be filled. This is a typically subnormal reaction. After four more trials without change of the position of the puzzle board and being told how after each unsuccessful attempt he still could not do the puzzle without error. The normal child of kindergarten age accomplishes the puzzle by the trial and error method and after this learning experience, he is able to do the puzzle upside down without error. That is to say, the kindergarten child is able to readjust a certain learned content to a new situation. The child of ten does the test by the planned method—makes few or no errors.

With the Thorndike *a* test, the marking out of 100 a's in a bit of pied material, the difference between the motor and the perception time was 70 seconds. The difference for the normal child of ten is between 20 and 30 seconds.

With the opposite test of the Healy-Fernald series and given as described in their monograph, he showed a reaction time of 3 to 4 seconds for 11 of the words; of 12 and 13 seconds for two; for two of the stimulus words no response could be gained after such stimulating questions as, *If a noise is not loud then how is it?*; for four others responses were obtained only after such stimulation. The average time for children of six years and over with this test is from 2 to 1 seconds, with an average of not more than two failures at any age.

The above account will serve to show how in reasoning ability, quickness of perception, etc., this boy is of defective type. I had hoped to have another sitting with him to gain further data and his reaction to the Binet series. Though circumstances have made that impossible, I think the data at hand are sufficient to justify the opinion that he is mentally defective.

Some data of observational type go to show that he is unable to meet the requirements of the social situation in which he has been living. When I went to the house I found the family at dinner and joined them at table. C. made no response to the formal introduction to me; he ate hunched over his plate in a noisy and greedy manner. Since the other members of the family are cultured and good mannered, this shows inaptness at adjustment to the requirements of normal social life.

He possesses a very good vocabulary. His use of it serves to cover up to the superficial observer the fact of his mental subnormality.

I wish to add further, because of the history of stubbornness and recalcitrancy which have characterized this case, that I was so fortunate as to find him in a most happy and responsive mood. So far as his own willingness was concerned, as good a reaction to tests was obtained as will ever be possible.

The report of the mental findings in this case go to show that this boy had a mechanical type of learning ability which had received much development through special schools and tutors. He had thereby been enabled to learn to read and write fairly well.

He lived in an environment where good language was used and he had a good use of English. At one point in his examination he said of a test in which he was much interested, "My, I'm becoming enthusiastic about this." It was these qualities in him, probably, which had deceived other observers into thinking that he was of normal mentality, when he really was of the moron grade. The moron is defined by Dr. Goddard as one who can work under supervision at fairly complicated tasks, but is unable to plan. At almost every point in his examination he showed himself with some capacity for learning what could be taught in a mechanical or rote manner, but no ability to think, plan, construct, or organize his own thought processes with reference to the end to be attained.

C. has now been in a good institution for the feeble-minded for nearly two years. The parents have been to visit him and report that he is contented there. A report from the psychological department of the institution declares him of feeble-minded grade and undoubtedly belonging to the environment in which he has been placed.

CASE 3. O. N. was a young man twenty-one years of age when seen by myself in August, 1914. Two years before he had been referred by his family physician to Dr. Hecht. His history was to the effect that for two years before that time he had been gradually getting peculiar. He had become very bashful, shunned company, would ask his mother how old he was and ask the same question the next day, would say he was not responsible; complained of a buzzing in the head; was sent to an aurist but no trouble found; failed in his high school work though previously he had been a good student and up to grade; tried business college for a time and failed; had several positions from which he was discharged for laziness; sat silently around the house a great deal; addicted somewhat to masturbation. He was kept under medical care for a time and then entered the preparatory department of a church college. He had completed two years' work there when I saw him and had to his credit the equivalent of three years of high-school work. He came then to Dr. Hecht to find out if his mind was of sufficient caliber to make it worth while for him to go on and prepare for college. He had a great desire to continue his school work and become a minister but feared that he did not have sufficient mental ability to do so. Dr. Hecht at this time reported of him: "I am prepared to say that he is free from the imputation of having any mental disorder. . . . As concerns the physical side he is in every way up to the mark."

Nothing of the previous history was known to me at the time of my examination. Dr. Hecht introduced him with the explanation that Mr. N. wished some educational guidance.

I found O. a slight, pleasant-appearing young man who might have been taken for eighteen years of age. He was quiet, respectful and unobtrusive in manner but there was no observable bashfulness. He was very frank about what he considered his shortcomings and very eager for helpful advice for overcoming them. In his response to all formal mental tests he was quick and alert. He passed satisfactorily those of the Binet-Simon scale through fifteen

years and the adult list and the most difficult ones of the Healy-Fernald set. He was tested for immediate memory and for persistent memory. He was a reader of good books and could reproduce the substance of them clearly and comprehensively. The results of the examination are summed up in the following report:

"From this boy's account of himself I find that he is troubled with the fear that he is in some ways inferior to other people. I judge that he came for examination in order to get advice as to ways of removing the inferiorities which he believes exist.

"The first of these concerns his physical weakness. He is troubled because he hasn't "much muscle," finds other boys "pretty husky," isn't much good at baseball because he "can't throw a straight ball," has gotten into several scraps with other boys and been worsted.

"The second fear of inferiority concerns the quality of his mind. He is troubled because he can't keep his mind on his studies. He has another worry about the quality of his mind which was a little difficult to analyze. After much discussion and questioning, however, it appears that his mind does not possess a large amount of visual imagery. He says of his reading, "I can't picture it in my mind as other people do." (A teacher of literature had once told him that he should be able to do so. She probably was a *visualizer*.) "Can always get the plot and understand well." He told of reading Robinson Crusoe recently. He said some of it seemed "real," got imagery and emotional reactions, but some seemed unreal; "I couldn't imagine it, I couldn't feel any emotion." He thought too, that there was something wrong with his mind in still another way. He said, "Sometimes I can't feel my mind working, one ought always to be conscious that his mind works, he ought to be able to feel it, the mind weighs four ounces, doesn't it? One ought always to know what it is doing." It seems that his worry is connected with the lack of visual imagery. He thought that the normal mind kept up something like a moving-picture performance.

"His third source of worry concerns an inability to get on well with other people. He says he doesn't get acquainted easily and that he has friction with others. "I'm not sympathetic with others, I can't see anything but my own way, if I want to do one way, and the other boy wants to do some other way, I can't see his way I can't see any but my own. I get along best by myself." He wants to be a minister, however, and realizes that he should be able to get along well with other people.

"His pedagogical account of himself is as follows: He has been in school steadily for two years, but for three years before he was out of school much because of illness. He makes good grades in languages. Did two years of Latin in the last year, has three years' Latin credit, and two years of German. He passed in algebra when many of the class failed. He received a poor grade in biology; he thought it was because he could not do the drawing well, said he could not get in the small details or get right proportion; that when he looked from the microscope to his drawing he could remember only a small part of the object he was to draw. He got better grades

in the drawing lessons because there the model was always before one, he thought.

"Since O. is able to introspect I could give him some association tests. It seems from the free associations gained from a wide range of stimulus words that his associations are sometimes of the visual type, occasionally of the auditory, but for the most part they are of the logical type. The reasons for some of the associations were not apparent. When asked to explain them he disclosed wide complexes of thought gained from his reading. He gave an account of his method of learning his language lessons, which is in conformity with his type of mind. He can learn the vocabulary of each lesson best in connection with the reading text, not by rote memory.

"I gave him a few other tests which show his deficiency in visual imagery, but for the accomplishment of which he is able to substitute other methods. He did the two or three formal reasoning tests well. He worked out quickly an algebra problem involving equations of the second degree, though he had his algebra two years ago. He read several long and difficult passages and reproduced them fully and logically. He reproduced a passage read to him as a memory test, accurately as to thought, but in language of a less simple type than that of the original selection.

"He reads much—novels, poetry, and essays. He seems to have gained much of his ideals of social ethics from Ruskin.

"I have outlined above his feelings of inferiority. He has, however, some mitigating hopes and experiences. He has worked on a farm this summer and says he has developed more muscle. He wants to go out to the Kansas harvest fields with a friend next summer, and thinks that will make him much stronger. He finds that he can learn his lessons more quickly this year than he could last year. I believe that the trouble with his lessons was caused by a lack of control of attention due probably to his previous three years absence from school.

"My diagnosis of this boy is, as may be inferred from the above, that he is mentally normal. His fears about the quality of his mind have arisen from his habit of introspection along with a slight smattering of scientific knowledge, insufficient for correct interpretation. He is quite capable of going through college. It was this point especially upon which he wished advice. I judge that he should devote himself to some line of scientific work, rather than the language and Bible study which now engage his attention. Because of his ideals of social service, I should think social science would be preferable. But of course he will have to work that out later.

"I think his own plan for the coming year is the best that can be devised. He wants to go back to college and live in the "family." The family is a coöperative group. The members perform all the work of the farm, dormitory, kitchen, and dining room. Here he will learn to get on with others, since he will always have to coöperate.

"There are two drawbacks in that institution for a boy of his type. First, it is too religious. This may, however, be counteracted by the very busy life there and the very intensive social life, which

will leave no time for introspection. Second, the living conditions are rather rigorous. The food is, or used to be, poor in quality, cooking and dietetic value. I have known many students to come away from there with depleted health. Since he is not a very strong boy this condition may have its effect upon him. But perhaps good advice as to the physical care of himself may mitigate it.

"I explained to O. the psychological phases of his case. He seemed pleased and satisfied when I told him that the visual type of mind which he coveted perhaps gave its possessor more pleasure, but that the logical type which he possesses is more useful to the rest of the world. I tried to give him a confidence in his own ability. It is possible that he will be socially less reticent if this sort of confidence takes hold upon his mind."

After this report was made some confirmatory material in the shape of letters written some months before by the young man to his mother were given me. These recount minutely and in normal fashion the happenings of his school life; there was recorded his elation over some good grades, and regret over one that had gone as low as 89; his generous admiration for some good speakers whom he had heard, for a few schoolmates he had found charming; and throughout it all his frequently expressed regret that he, himself, did not measure up to the high standards of his admiration. He was, however, sure that in time he would improve. A part of one of these letters may be quoted to show the deprecatory attitude he had toward himself.

"You know lately I feel that I don't care to study so much anymore. It will soon be over with anyway. There are not quite four months remaining of the school term this half and it is all a discouraging thing anyhow. But then it is this way about the lessons, too. If I don't study quite a lot, what else can I do? It will soon be spring and there will be exercise outdoors for anyone and swimming in the pool, if they take the floor out, but there is sure to be lots of time. I don't believe I fully appreciate what it *means* to study, because I don't really have much *mental pleasure* in exercising my mind on those lessons or hardly anything else. The truth of it is, I can't feel my mind exercise itself. My brain is asleep all of the time for all I am aware of any activity going on in it. One of the speakers at chapel mentioned that we feel the effect of the activity of our faculties. Well the grades I get in my studies and the good work I seem to be doing in class may be the *effect* of mental activity but that is the only ground I have to work on for knowing that there is such a thing going on in me. I remember after the K—H—entertainment of musical selections I had quite a feeling in my head, what I call a glow, but that is the best I ever have had this year.

"The people here just consider me a kid, and though I know I do kiddish tricks at times, I don't believe anything I do hurts my mind. I have smoked tobacco on two occasions since I left home last fall. That is the extent of *that* indulgence. I don't think I've hurt myself any other way to any extent. So I hope and trust that some day in the future I will be pleasantly surprised by a conscious

swelling of gray matter in my bean in such a way that I will feel real sensible and begin to have feelings of my own. I am sure then that I will be able to appreciate the minds of other people and guess their minds, and begin to act more like a boy of my years should, and *grow*. I believe firmly, and nobody can deceive me any longer about it (unless they should keep on insisting to the contrary so long), that anybody can appreciate or guess the minds of everybody else, providing they know their own minds, and I insist that that is still more than I know. No wonder I am a stick! I can't like anybody very much, so of course I don't make friends. I haven't a spark of spirit, unless it is animal spirit, and that isn't anything for people to like about me. Why I never feel for a single day like a young man. I believe when I come to know my own mind that then I will wake up and be a person 'and develop rapidly in leaps and bounds' as Mrs. L. R. said I would in her reading of my handwriting a long time ago. They can talk all they want about my being *simple* and they are about right I guess. But when it comes down to saying that I always will be this way, it makes me as sore as I can get. My theory is that I am not near what I will eventually become in time, in ten or twenty more years possibly, and that is my only consolation for being a dead spirit and a stick! As far as what I'm doing goes, well, I do *study*, as far as I know what that means; and no matter what I am, I an't a grouch, either, when it comes to people. If I *ever* come around and get alright you'll know quick enough, and so will anyone that has contact with me in any way."

A letter written some weeks later, however, is much less ego-centric in tone. In it he scarcely mentions himself subjectively but talks much of the admirable people he has seen and heard and told about having declaimed a fine selection, he thought, very well.

CASE 4. J. M. was 13 years of age when seen in September, 1914. A physical examination disclosed nothing positive. She was the fourth and last child of well-to-do Jewish parents. There was no backwardness in walking or talking, but in other ways she appeared less bright than the other children of the family. She began to show her mental defectiveness markedly, however, only after beginning school. She had been tried in public school, with private tutors, and for the last three years in a most excellent private school situated in the country. The principal of the last school had advised the parents not to return her at the beginning of the school year, saying that nothing could be done for her there.

J. was a bright, vivacious-appearing little girl. She was rather small and looked and acted much younger than her years. She was normally responsive and could engage in small talk concerning her own doings, the affairs of the family, etc., with assurance and accuracy. Superficially she gave the impression of the normal nine or ten-year-old child. The mental examination, however, very easily disclosed a quite different condition. The report of the results of the examination was as follows:

"J. passes all the *seven year* of the Binet tests, except that her

counting of 13 objects is rather uncertain. She is likely to skip some of the series because of wavering attention.

"The following is a partial account of her performance with the eight-year tests.

"1. (Tell difference between butterfly and fly; wood and glass.) 'The butterflies are white and the others are yellow.' (Ques.) What are yellow? 'Oh, oh— the— what did you say?' (had forgotten the problem; it was repeated for her). 'The butterflies are yellow and the flies have white, a little bit of white.' 'Oh, wood is a big piece of wood, that you use for fire, and it's all white, and what else did you say?' (Problem repeated.) 'Oh, glass is thick and large and breakable and kind of thick and it's awkward, awful awkward and heavy stuff.'

"2. (Count backward from 20.) Makes no organized effort.

"3. (Repeat days of week.) Correct.

"4. (Count stamps.) Failure.

"5. (Repeat 3, 5, 9, 1, 3.) Correct.

"She failed on all of the nine-year tests except the one for repeating the months of the year. In school work she has gained less than the average seven-year-old child. She can make such combinations as $7 + 8$ and $10 - 6$ by counting marks; she cannot manage a problem involving making change with a dime after making two purchases; she forgets the terms of the problem over and over. She can read less readily than a normal first-grade child.

"She does the Healy mechanical tests with less facility than a child of kindergarten experience and learns them very slowly after instruction. She cannot do the cross-line tests, or the opposites test because of lack of control of attention.

"She chatters much while working. She is vivacious and bright in appearance.

"My diagnosis is that she is feeble minded. She should be given institutional care to prevent social delinquencies."