

16-MBR-MAM
Prior to 1920-JPA
185

JOURNAL OF PSYCHO-ASTHETICS

Vol. XXII, no. 3+4, March + June 1925

Please send me a copy of the issue in which the article appears.

Sincerely yours,

H. R. HEYDORF

Chief, Department of Public Education

REVIEWS AND NOTICES

The Psychology of Special Abilities and Disabilities.

F. BRONNER, Ph. D., Little, Brown & Co., Boston, 1912

Price. \$1.75.

Dr. Bronner defines her problem in terms of individual adjustment and limits it to educational and vocational considerations. Arising from the present lack of recognition of special abilities and disabilities of children and the consequent tendency to ignore particular aptitudes and to see only the general low level of ability, the problem of adjustment is discussed for its solution upon the discovery of individual abilities and disabilities. Thus an individual may function normally except for a mental defect, or an individual who, though generally mentally defective, may yet have some special ability. By "an individual with special ability," the author means "a person with some mental defect who might rightfully be designated feeble-minded or subnormal; one who is generally that in the main he is normal. The extent of incapacity may be very narrow. On the other hand are the mental defectives with some special ability. The feeble-minded "who fall somewhat below the upper limit of feeble-mindedness (the Binet tests for the twelve year level) * * * possess abilities which, not discovered by these tests, render them capable to compete in an ordinary environment." The author defines also the "sub-normal," who, "while definitely lacking in the higher mental powers as estimated by tests, yet pass the Binet twelve year level and possess special abilities of social significance." To effect the best possible adjustment of these individuals to the group, the author proposes diagnostic and remedial psychological tests with a view to practical solutions.

The proposed solution of this problem is, then, through the study of the mental processes involved in various activities. The limitations of the present knowledge in consideration of the means at present available and the nature of the present knowledge with respect to the measurement of special mental processes, are noted in connection with the discussion of the mental processes which are supposed to be discriminated by certain tests.

The need of such diagnosis is emphasized in a brief summary of the educational tendencies which Dr. Bronner interprets as the result of

individual," stressing chiefly the group rather than the individual. That such diagnoses can be made of practical value even with the acknowledged limitations of our laboratory methods, is the author's contention and it is by such study, she thinks, that we may hope to improve our power of discriminating the various mental traits.

The means employed to solve this problem, the methods of diagnosis, are the various revisions of the Binet-Simon scale for measuring general intelligence, and second, "other tests available for the study of the various processes." The clinical findings are supplemented by the "developmental history," "the physical conditions at the time of the examination," "educational opportunities," "the social background," and "perhaps the heredity." "It is the accuracy and completeness of all these data that determine the value of the final diagnosis."

The "other tests" used consist of performance tests, association tests, and "psycho-motor control," etc.

Introductory Test: a combination of the form board with the picture board. (Healy Intro. Picture Form Board).

Construction Test I: consisting of a wooden frame into which five pieces are to be fitted. (Healy Construction Puzzle A).

Construction Test II: more complicated than I. (Healy-Fernald Construction Puzzle B).

The Puzzle Box: box fastened by a series of strings passed over pulleys which can be unfastened only in a certain sequence. (Healy).

Cross Line Test I: two lines crossing like a large X with numbers in the angles. (Healy).

Cross Line Test II: more complex form of cross line test I. (Healy).

Slide Test: combination of the two cross line tests. (Healy).

Pictorial Completion Test: picture representing ten activities from which squares of equal size have been cut out so that in each piece is a fragment of the meaning of the whole. (Healy).

Robinghaus Completion Test: mutilated text. (Trabue Scales).

Arbitrary Association or Substitution Test: Association between a symbol and numerals. (Healy).

Tests of Memory for Logical Material: stimuli visual and auditory.

Tests for Memory Span.

Tests for Visual Memory.

Tests for Remote Memory.

Tapping Test: tapping in half inch squares. (Motor Coordination Test).

Tests for Controlled Association: words given by subject must be assigned relation to stimulus word. (Woodworth-Wells).

Capelin Addition and Subtraction Tests: continuous addition and

19. Aussage Test: testimony test. (Healy).
20. Instruction Box. (Healy).
21. Analogies Test. (Terman and others).
22. Tests for Arithmetic Reasoning. (Terman).
23. Ball and Field Test. (Terman).
24. Link Chain Test.
25. Test for Mechanical Ability. (Stenquist).
26. Directions Test. (Woodworth-Wells).
27. Tests for Visual Perception Plus Attention: cancellation.
28. Questionnaire Tests for Ordinary Information. (Healy).
29. Tests for Common-Sense Adaptations.

The author groups them as "tests for the study of the various processes." There are performance tests for the perception of form relationships; tests for discriminative capacity of color, for tests of "apperception" such as the Ebbinghaus and Pictorial Comparison methods; tests for memories, auditory, visual, etc.; the various aptitude tests, Kent-Rosanoff, Woodworth-Wells, etc.; tests for reasoning, abstract, psycho-motor control; for mental control; and for other special abilities. It is an attempt to "study in detail the various mental processes in relation to the capabilities of the individual."

In his diagnosis, the clinical psychologist must differentiate the cases of special mental disability from psychopathological cases. Nervousness, hysteria, dementia praecox, epilepsy, chorea, and other diseases which are a disturbance in the functioning of the mental processes must be carefully discriminated. Thus differential diagnosis assumes an important place in the examination.

In accordance with the author's purpose to study these cases in view to educational and vocational considerations, she considers "special defects in number work," "special defects in language ability," and "special defects in mental control," after which she devotes a section to "special defects with general mental subnormality." The method of treatment consists in an analysis of the elements involved in the special disability under consideration and the citation of illustrative cases to answer the question: "What mental processes as studied by psychological tests can be analyzed to explain the defect that is found?"

In the analysis of the mental functions involved in arithmetic, the cases cited in illustration have all proved normal except for the one case of disability in number work. The case study is followed by a note of recommendation made and the results obtained on the basis of such recommendation. In each case the issue was a thoroughly practical one based on educational or vocational guidance. For instance, one boy had a defect in auditor memory for numbers" with no other noticeable defects, even "exceptionally good visual powers." It was recommended

use visual methods of presentation. The results were of immediate practical value.

Special defects in language ability are discussed under three heads, reading, spelling, and spoken language. Emphasis is laid on the "complexity of the reading process and the various phases of the mental life that are involved therein."

Case studies follow. There is in each instance a recommendation of remedial education or social import.

Under the heading, "special defects in separate mental processes," the author discusses, defects of memory, "defects of inner visual functions," "deficiencies for work with concrete material," "defect in speed of reactions," "defects in perceptual abilities," and "defects in higher mental processes." The relationships of the various aspects of the memory processes to their application and applications to complex activities have not yet been fully examined, the author reminds us. She then discusses cases; one who has "defects for auditory presentations," a case who has "defective rote memory" - whose immediate memory is normal" and also a case whose "rote memory" was poor whose "apperceptions were quicker than his visual perceptions". Emphasis is, however, chiefly on the discriminative capacity of the immediate and remote memory.

A discussion of disabilities for work with concrete material follows. A distinction is here made between "inability to solve problems dealing with concrete material because of difficulty in finding methods of solution," "inability which is the result of "lack of dexterity to carry out well the work one has reached." The former involves lack of "perception of the relationships," the latter poor "psychomotor control." Both types of defects are illustrated.

"Defect in speed of reactions explains occasional instances of "seeming incapacity." Individual differences in sensory and perceptual powers shown in discrimination of weight, color, form, length of line, etc. The author notes that "in spite of much experimentation we do not know the limits below which disability in perceptual powers, auditory, visual, or other types, becomes important as conditioning failure in educational or vocational life."

Defects in the higher mental processes are discussed with the reservation that the presence of such defects leads one to doubt whether the individual concerned can be regarded as sufficiently normal mentally to fall within the group of individuals with special defects." Such are persons who seem to have normal capacity as judged by social reactions or results on mental tests yet may have "extremely poor ability in some one or more of the higher mental powers." Apperception as "capacity for sizing up situations" is cited. Defective power of "mental representation" is discussed and illustrated, also defective "perceptions of relationship."

In regard to defects in mental control, the author considers that "defec-

tive powers of control of actions may be due, on the one hand, to inability to repress the feelings, that is, to lack of emotional control; and, on the other, to failure to arouse inhibiting ideas." She cites Davenport's characterization of such individuals as "the feebly inhibited." The cases chosen for illustration are the typical "control defectives," "delinquents - - - their inability to resist temptations, their extreme bad temper, angry fits and violent reactions."

The opposite type of mental irregularities, namely, special abilities which rise above the level of general mental subnormality is then discussed. Special abilities on account of their minor social significance, are accorded briefer consideration. Some, however, which give evidence "of such social significance that there is a strong possibility of successful adjustment (of the individual) to conditions outside of institutions" deserve a special mention. Special ability in number work, in language, in work with concrete material and in rote memory are discussed with illustrations and their possible social significance noted. A brief consideration of border-line cases follows. These are the cases which after long observation and repeated testing are still difficult to classify.

The chapter on general conclusions, somewhat in the nature of an apologia, restates the author's purpose and again emphasizes the limitations of the method.

"No dogmatic statements can be made in regard to general conclusions from these measures." "Even though subtle distinctions cannot be made and small differences discriminated, we may find illustrating suggestions in special instances of success and failure." There is a recapitulation of (1) the recognition of a need for individual adjustment with the purpose to present a list of abilities and disabilities that require special consideration and to present the practical importance of directing efforts in accordance with these individual characteristics; (2) present means which are helpful but inadequate; (3) need for educational diagnosis; and (4) the inadequacy of mental tests. The author emphasizes the fact that the "balances should be preserved between reasonable expenditures of time and energy and the value of results which one may hope to attain." And she concludes it the part of wisdom to "know all one can of the characteristic mental traits of individuals and to use a practical procedure in the light of these findings" - - - that "the study of mental processes which are elements in activities for which defective individuals would seem to offer the best of hope of rationally attacking present specialized incapacity."

That she has maintained her thesis of the practical value for educational and vocational guidance of her method seems evident to this extent. "X can not retain impressions received by means of auditory stimulation. It is certainly the part of wisdom to caution his teacher to use visual stimulation. There lies no difficulty. But that such expressions as "poor visual memory" and "poor auditory memory," etc., imply, in spite of the author's cautioning

used can and do measure these mental functions, is very misleading. The use of such terminology and of such expressions as "social apperceptions," is apt to beguile the psychologist into a false sense of scientific accuracy. As to the method the author states that "analysis of mental processes offers the best hope of rationally attacking the problem," - - - . In testing for these various mental processes, it appears. Whether or not we find them by these means, one is on the way and may, from our own point of view, finally arrive. But one feels that after all it seems the Paracelsus way, as who should say, "I see my way as bird's this way, I shall arrive." In the last analysis it is the personal judgment of the psychologist which must evaluate all these various results. We are far afield from a scientific method.

MAUD A. MERRILL.

St. Paul, Minn.