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EDITOR

A. C. ROGERS, M. D. Faribault, Minn.

ASSISTANT

FRED KUHLMANN, Ph. D. Faribault, Minn.

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H. H. GODDARD, Ph. D. Vinona, N. Y.

H. G. HARDT, M. D. Minneapolis, Minn.

C. S. LITTLE, M. D. Minneapolis, Minn.

WM. HEALY, M. D. Minneapolis, Minn.

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REVIEWS AND NOTICES

FEEBLE-MINDEDNESS AT THE FOURTH INTERNATIONAL CONGRESS OF SCHOOL HYGIENE, FALO, NEW YORK, 1913

The Present Attitude of the Bureau of Child Hygiene of Buffalo Towards the Defective Child. F. W. B. *Transactions, Vol. III, Pp. 419-423.*

The Medical Inspector and Feeble-Mindedness. W. S. C. *Transactions, Vol. V, Pp. 609-613.*

The Results of Applied Therapeutics to So-called Deficient Children. J. J. CRONIN. *Transactions, Vol. V, Pp. 444-485.*

of the School in the Problem of Mental Deficiency.

MABEL E. FARRELL. *Transactions, Vol. III, Pp. 435-443.*

Normal Child. F. E. FRONCZAK. *Transactions, Vol. III, Pp.*

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iversity in Relation to the Problems of Mental Deficiency.

ESSELL. *Transactions, Vol. V, Pp. 614-620.*

Mentally Deficient—How Many Are There—and How

They Be Detected? H. H. GODDARD. *Transactions, Vol.*

621-628.

Mentally Defective Child Be Educated in the Public

schools? HELEN MAC MURCHY. *Transactions, Vol. III, Pp. 486-*

Important Factors in the Seeming Increase in Mental Defect.

ELLE T. SMART. *Transactions, Vol. V, Pp. 532-538.*

Transactions of the Fourth International Congress on School Hy-

giene at Buffalo, New York, in August, 1913, are published in

sets of six to seven hundred pages each. The nine papers listed

directly with the subject of feeble-mindedness in the public schools.

These papers touch on the subject indirectly, but the whole does not

add up to a hundred pages in all. This represents a rather scant recognition

of the subject as compared with its importance to the schools. It undoubt-

edly shows the fact that the public schools on the whole still do not realize

the extent of feeble-mindedness among public school children and

how their presence raises for the schools. However, some of the

papers show a hopeful progress, at least in some localities. Barrows argues

against the sentimentality of calling the really feeble-minded by disguised

names as "backward," "ungraded pupils," etc. He suggests that the

city should locate every feeble-minded child in the city by name

and keep these on record. Farrell holds that "The public

school should be the clearing house for all knowledge relating to the de-

velopment of children which in any way affects the community interest,"

and the school holds the strategic place in solving the problems of

mental deficiency." Because the public schools are at present not vested

with the authority to commit feeble-minded children in public schools to special

institutions for the feeble-minded the latter are assured further generations

of the same. A plan is recommended to establish classes for the feeble-

minded in the public schools, where they are to be kept until later childhood,

and then committed to the special institution by a state board of physicians,

educational sociologists, and psychologists, which is to pass on all commit-

ments. This gives the child a thorough trial, leaves him in the care of the

state until sexual maturity, and lessens the state expense. MacMurchy

regards the special classes as an indispensable part of the modern system. In addition to their regular functions, they should furnish a means of finding the feeble-minded, for which class they should be the best house, to commit them to a permanent home and school of the village type. Cornell discusses the qualifications of the medical profession. The average physician does poor or mediocre work at first with defectives. A special training is required. He should have a knowledge of the factors which cause mental deficiency, and of the clinical evidence of mental deficiency. It involves sociology, psychology and medicine. He must have the right temperament and disposition to handle children. Gesell suggests that the University may deal with the problems of feeble-mindedness in three ways. (1) Through University research and extension department in connection with institutions for defectives. (2) Through psycho-clinics and normal training courses in connection with University department of psychology and education. (3) Through five-year medical courses specializing in child hygiene. Goddard accepts the definition of feeble-mindedness given by the Royal Commission. He repeats his statement that 1 per cent. of the public school children are feeble-minded, and that the Simon tests in the hands of one who understands them are a determining whether a given case is feeble-minded or not.

Faribault, Minnesota.

F. KUHLMANN

THE BINET-SIMON TESTS AT THE FOURTH INTERNATIONAL CONGRESS OF SCHOOL HYGIENE
BUFFALO, NEW YORK, 1913

Recognition of Mental Defect in the Higher Grades. W. H. PYLE. *Transactions, Vol. III, Pp. 543-552.*

The Degree of Mental Deficiency in Children as Expressed by the Binet-Simon Test. Relation of Age to Mental Age. F. KUHLMANN. *Transactions, Vol. V, Pp. 629-636.*

The Value to Be Derived from Giving Mental Tests to Children. W. H. PYLE. *Transactions, Vol. V, Pp. 637-642.*

Some Theses Regarding the Scientific Use of the Binet-Simon Test in Measuring Intelligence. O. BOBERTAG. *Transactions, Vol. V, Pp. 642-644.*

Some Requirements of Graded Mental Tests. CARRIE W. WOOD. *Transactions, Vol. V, Pp. 645-648.*

Limitations of the Binet-Simon Tests of Intelligence.S. S. BERRY. *Transactions, Vol. V, Pp. 649-654.***Comparison of White and Colored Children Measured by the Binet Scale of Intelligence.**J. MORSE. *Transactions, Vol. V, Pp. 655-664.***Observations on the Extension of the Binet-Simon Measuring Scale.**E. A. DOLL. *Transactions, Vol. V, Pp. 665-669.***Use of the Binet Scale with Delinquent Children.**GRACE M. WALD. *Transactions, Vol. V, Pp. 670-677.***Misconceptions in Regard to The Functions of Binet Testing and of Amateur Psychological Testers.**J. E. WILKINSON. *Transactions, Vol. V, Pp. 678-689.***Personal Experiences with the Binet Scale.**A. J. SCHREUBER. *Transactions, Vol. V, Pp. 690-692.***Reliability of the Binet-Simon Measuring Scale of Intelligence.**H. H. GODDARD. *Transactions, Vol. V, Pp. 693-699.***Plans for Revising, Extending, and Supplementing the Binet-Simon Intelligence Tests.**L. M. TERMAN. *Transactions, Vol. V, Pp. 700-707.*

Fernald outlines a plan for a clinical examination to determine the grade of intelligence. He believes the Binet-Simon tests to be inadequate for the determination of the grade of intelligence of adolescents near the level of normal intelligence. Kuhlmann points out that the mental age or the difference between age and mental age does not alone determine the grade of intelligence in the case of children, and discusses the use of intelligence quotient, or mental age divided by age, as a truer index of intelligence. Pyle argues that group tests might be used to determine all the children of a school system, and that those found to vary much from the average normal might then be tested individually. He discusses some group tests used by him for this purpose and suggests that the test results should be used as a guide in adjusting kind of method of teaching to individual children found to vary from the average. Bertag notes that but little of the results of the extensive work with the Binet-Simon tests is of scientific value, and lays down a number of suggestions that users of the tests should observe to remedy this. Squire points out some defects of the tests. The chief defect, she thinks, lies in the fact that the same or similar tests are not kept from one age group to another, thus not making the tests comparable, age for age. Secondly, the tests require acquired knowledge as well as native ability. Thirdly, they are

affected too much by language ability. Fourthly, they should test capacities and functions. Fifthly, the procedure in giving them should be standardized. Berry thinks that in order to make the tests of those depending largely on experience should be eliminated. Tests for the higher ages are too difficult. The absence of tests for the eleven, thirteen, and fourteen makes it impossible to estimate from ten to fifteen accurately. The mode of procedure should be standardized. Morse reports the results of an examination of 123 colored and 225 white children by a graduate student. Children of varying ability were selected by the teachers to make them representative. He finds that twenty per cent. of the white, and twenty-nine per cent. of the colored children read at the one year level, and eighty-four per cent. of the white, and seventy per cent. of the colored satisfactory. Dividing the white into "mill" and "city" children, shows the mill children inferior to the city children, but the colored are about the same as the colored. Doll notes that the scale of tests can not measure intelligence beyond the mental age of ten. He discusses a number of reasons why it might be supposed that tests of intelligence of adolescents and adults could not be devised, but does not consider them insurmountable. In discussing tests the following should be considered: (1) There should be a clear knowledge, or clear hypothesis of the psychology of the age group to be considered. (2) There should be a careful selection of those functions essential or contributory to intelligence, and then subject them to experimentation. (3) Objective tests should be selected according to the situation, and the satisfactory ones standardized. He gives a list of characteristics such tests should have. Grace M. Fernald thinks that the tests may work well with the average school case, but that they do not work so well with the delinquent with little or no school training. The motor-game type should be added in place of those of the abstract type. The absence of tests for ages beyond twelve particularly affects the testing of delinquents. Wallin discusses what he thinks are the limitations of the tests, and about the ability of the examiners to use them. Schreuder reports the results of examining Dutch school children, aged six to twelve years. They show the tests to be too easy at the lower end and too difficult at the upper end. It is noted that boys vary more from an average intelligence than do girls. Wallin argues for the accuracy of the scale for practical purposes and for the ages of three to twelve the tests hardly need improvement. The uniformity in the use of the scale by different testers is called for. Wallin discusses (1) the selection of children for standardization.

question of age grouping; (3) the per cent. of correct responses for placing a test in its age group; (4) the needed shifting of criteria for the elimination and substitution of tests; (6) desirability of tests per age group. The scale of tests should be extended, and other tests added throughout. The value of a scale of tests to aid in interpreting the results of the intelligence tests

ult, Minnesota.

F. KUHLMANN.

Physical Health of the School Child. The Psycho-Educational Clinic in Relation to Child Welfare. Contributions to the New Science of Orthophrenics and Orthosomatics. BY WALLACE WALLIN, Ph. D. New Haven: Yale University Press, 1914. Pp. XIII+463.

This book of nineteen chapters is a collection of twelve reprinted articles and papers not published before, and two new chapters. Four chapters deal with clinical psychology as a new science, its nature, functions, and contributions. Four others discuss mental examinations, the Binet-Simon tests, and the mental examiner. Four chapters deal with physical welfare and physical defects of school children. Two chapters deal with physical inspection, and two others of what the schools are doing in the way of promoting child welfare. A final chapter gives a scheme for the physical examination of children. These collected papers "aim to measure the aid which the practical psychologists and expert consultants hope to render in the important work of diagnosing, studying and training feeble-minded, backward and mentally defective children in the schools." A history and survey of the work in clinical psychology in this country leads to the conclusion that the field is not yet defined, and that the necessary qualifications of the psycho-clinical work is not sufficiently understood. Psycho-clinical work is largely in the hands of physicians, and psychologists with no special training for it. The main function in the public schools is in the great majority of cases the use of the Binet tests by amateurs not at all qualified for the function of the psychological clinic is given as fourfold. (1) "The first purpose of the psychological clinic is to give a diagnosis of mentally deviating cases and expert prescription and treatment." (2) "The second purpose of the psychological clinic is to serve as a laboratory for the study of mentally exceptional cases." It has no special interest in normal children. (3) "Research, particularly with a view to perfecting diagnostic tests and to extending our knowledge of the causes and treatment of mental abnormalities." (4) "The third purpose of the psychological clinic is to collect and disseminate reliable information and knowledge regarding the condition of the mentally abnormal classes." The organization of the clinic

for large cities includes six classes of workers. (1) One director and department of special education directly responsible to the superintendent of schools. (2) One supervisor of special education, reporting to the director. (3) One or more social workers. (4) "One or two clerical testers for some of the routine testing." (5) "One medical officer to serve as a 'clearing house,' or general utility man on the medical side." (6) One or more clerks. Which of the above functions of the clinic each of these six members of the clinic's staff is not specifically stated.

A mental diagnosis involves both a laboratory and clinical examination. The results must give the general mental level, and a comprehensive clinical picture of the case. It must differentiate types and trace them to causes. There are many aspects of mental deviation which from a laboratory alone does not reveal. To become a clinical psychologist requires a thorough training. "The general practitioner, pediatrician, orthopedist, or psychiatrist, educational, experimental, genetic or abnormal psychology, lacking in some of the essentials which the expert psycho-clinician possesses." He must have an expert knowledge of general, experimental, genetic and abnormal psychology, and of child study. He must have in addition a thorough training in psycho-clinical procedure, including a laboratory clinic and a year's internship in the first-hand study of feeble-minded, epileptic, psycho-pathic and disciplinary cases. A thorough training in educational therapeutics, the differential diagnosis, and pedagogics of the educational expert on mentally deviating children. The Simon scale is only one of many diagnostic devices at the command of the trained clinical psychologist, and no system of formal intelligence tests devised can be used as an infallible measuring rod of intelligence. They have many imperfections, but are a step in advance, and of considerable value to the trained examiner. "They provide a fairly impersonal method by which to grade or classify, with a fair degree of accuracy, institutional and school cases relatively to one another." In the hands of an expert it is "a surprisingly serviceable means of classifying large masses or groups of individuals." The 1908 scale should be used in preference to any of the several revisions that have appeared, "until a large mass of clinical data is available for a thoroughly scientific re-evaluation of the scale." The manner in which these revisions have been made has been criticised, calling forth the statement that "Superficial work like this leads and tends to arouse contempt for the slipshod standard of scientific work obtaining in this field of applied psychology. Worst of all are the scales, because of the claims made as to their reliability, are used by large numbers of uncritical Binet testers who are not psychologists nor scientists and thereby pupils are judged or stigmatized on the basis of unproved assumptions." The number of tests for intelligence should be increased to ten. The present number measures too narrowly and insures our striking a fair average for the whole. For the year

Half years should be included. To establish reliable norms not less than a hundred cases of each sex for each age-group should be tested, and these must be normal children. The tests should be given to the child individually, for group tests do not give reliable norms. The tests need to be given in accordance with administrative procedure. In order that the results obtained be reliable the tester must have the training of a clinical psychologist. The results of testing by amateurs are probably not more reliable than ordinary classroom standards for determining pedagogical retardation.

A general program for the promotion of child welfare is given chiefly in the fifth chapter, on "The Euthenical and Eugenic Aspects of Infant Orthogenesis." The physical and mental development of every child during its entire growth period should be in charge of the community, through the schools and other public institutions. To accomplish this, certain measures are laid down. (1) Every child on entering school should have physical and mental examinations by expert examiners. (2) Special treatment should be given all children deviating from the normal. (3) "Specially trained teachers and special classes or institutions should be provided for the mental and physical deviates." (4) For all children, physical and mental education should receive equal emphasis. (5) Socially and mentally incompetent children should be permanently segregated, unless adequate protective oversight is insured in the home. (6) The aim of psychological work should aim to prevent more than to cure defects. The measures usually advocated by eugenicists are for the most part not ideal from the eugenical standpoint, but a number of difficulties are pointed out. (1) The sexual emotions are the subjective side of the problem that are biologically fixed. There is no instinctive repulsion to abnormal matings, and it is questionable whether this can be aroused by laws, customs and prohibitions. A racial instinct of sexual modesty opposes physical health examinations, and maternal and filial instincts oppose the segregation of the eugenically unfit. (2) Public sentiment will not support the segregation or colonization of all misfits. (3) There are no adequate means of separating those who are eugenically fit and unfit. (4) Eugenic research is still in its infancy. Following chapters are on "Experimental Oral Orthogenics," "The Relation of Oral Hygiene to Efficient Mentation," "Methods of Measuring the Orthophrenic Effects of the Removal of Physical Handicaps," "The Results of Dental Inspection in the Cleveland Schools." The first of these chapters reports the results of an experimental study on the mental effects of the removal of a group of children, and will be considered further in another chapter. A chapter on "Efficiency in School Organization and the Connection Between the Mental Health of Children" gives twelve case histories of children who are deviates among school children, and comes to six conclusions which, however, have already been noted in connection with other chapters. Chapter XVIII on "Public School Provisions for Mentally Unusual Children" discusses results obtained in answer to a questionnaire sent to pub-

lic school superintendents, replies from 302 cities having been

The reader who has been following developments along which this book treats will have some things to criticise. As treatment of one central theme the book is disappointing, as all reprints and old unpublished papers are apt to be. It lacks plan and unity, and is full of needless repetitions. It represents a miscellaneous collection of personal opinions of the author who has been rather too brief and limited in the many fields of inquiry to command the weight of authority. The author's failure to refer to literature previously published, and the copious advice, suggestions given leave the impression of the unscholarly and amateurish. References to literature is given in only three out of the nine chapters and only several of those in the list are referred to in the text. For these chapters are: "The New Clinical Psychology, and the clinician;" "Individual and Group Efficiency;" and "Medical Inspection in the Cleveland Schools." Why the reader should be referred to literature on these particular topics and not to literature on the subject is not clear. A chapter on "The Present Status of the Binet-Simon Test of Intelligence" gives no list of references, and only three references in literature, all of which refer to a study previously published, and not in this book, by the author. Out of several hundred publications which have been consulted for this chapter one of the author's own studies to which more than half of the nine pages of this chapter is devoted to study gives the results of examining 333 epileptics, and from a comparison of the tests is judged. The author's strong and continuous pursuit of standards of scientific work in mental diagnosis, and for a long time for mental examiners is in itself commendable enough, but it is not leading, and involves some erroneous assumptions. To qualify a mental examiner one must be an expert clinical psychologist, and when we note his enumeration of the qualifications of the expert clinical psychologist it becomes obvious that either no such person exists or else "expertness" is taken in a rather loose sense. The author does not qualify as an expert according to his own definition. We are told that the Binet-Simon test is only one of many means the expert has for making a mental diagnosis: that other mental tests, and a careful study of the case must be made to constitute a reliable diagnosis. In other tests with established norms are given by the author. In the last come to his final chapter presenting his schema for the diagnosis of children we find nothing essentially different from a score which in which the literature has abounded for years, but which has not of great value in practical work. If the author had presented his tests, with their manner of use, and had shown us definitely how the data called for in his schema could be gathered and utilized in mental diagnosis some contribution would have been made. Instead the assurance simply that this matter may be left to

psychologist. Practically all other psychologists of experience Simon tests who give their opinion testify that the tests should give great aid to any teacher in arriving at a better knowledge of intelligence. Dr. Wallin, however, is convinced that the results of the tests are not of much greater value for this purpose than the records already existing. He insists that the general and training of the psychologist are necessary to make a reliable Binet-Simon test, a kind of dogmatism that he severely criticises in other Binet-Simon tests. The reviewer's actual experience, agreeing with others, positively and emphatically disproves this assumption. Revisions of the tests that have appeared by different authors are as unreliable, and apparently as poorer than the original that since the fact is lamented that the revisions, because of the lack of their reliability, are used by uncritical and uninformed test-takers, a serious charge. It is unfair to the revisers if the inference is drawn that they are making great and immodest claims for their revisions. The reviewer will deny that this much is proven. But let us note the author's attitude regarding the revisions all as unreliable. They are because (1) the same children have not been used to obtain the norms; (2) there is not an extensive number of cases examined for every age; (3) the testees are not just passed their birthdays at the time of examination; (4) the wide range method of testing was not used. We may grant all this as true. They are mostly irrelevant and all misleading in their conclusions. That the author should regard them as proof that the tests are unreliable and no improvement over the original shows rather than that he followed the analysis of the results on which the revisions are based. He is lamentably ignorant of the theory and technique of a test like that of Binet-Simon.

The book contains two chapters on the results of two experimental tests. The first gives the results of examining 333 epileptics with the Binet-Simon test, the other gives the results in the use of special mental tests before and after dental treatment of 27 school children. These two chapters are full of noting how the author lives up to the high standards set in other chapters. It has already been noted that a number of pages are devoted to discussing defects in the Binet-Simon tests on the basis of results obtained in examining epileptics. These epileptics were feeble-minded, and he has only 333 for all ages included. The reviewer is of the special type of mind which causes exceedingly irregular results in Binet-Simon testing. Apparently the author has not discovered this and regards it as irrelevant. I have always excluded results from the Binet-Simon test as worthless in discussing accuracy of the Binet-Simon tests. The reviewer laments that "in one case a revision has been made on the basis of the performance of feeble-minded persons." (If he had said that in the case of a few of the changes made were based on the performance of

feeble-minded this statement would have been correct), and the case are they (the revisions) based on the performances of *selected* children." A comparison made between the epileptics and feeble-minded and conclusions as to the relative frequency of the different grades of intelligence in each is also interesting. He has examined the inmates of the institution for epileptics and compares them with the inmates of the (N. J.) School for Feeble-minded. He concludes that "The typical category is that of the condition of morosity. * * * * while the feeble-minded station is that of imbecility," because morons are numerous of any grade among the epileptics of this institution, and are most numerous among the feeble-minded at Vineland. A profession that this should come from the "expert clinical psychologist." That the epileptic sent to an institution might be selected cases in a degree he does not think likely, and that possibly moron feeble-minded not sent to an institution with the same relative frequency as are the grades he does not mention.

We may turn to his experimental study attempting "to determine controlled, objective, mental measures the influence of hygienic and dental treatment upon the intellectual efficiency and working capacity of a squad of twenty-seven public school children." The following five tests were used: (1) Memorizing ten three-place numbers for forty-five seconds on a cardboard to the class. (2) A spontaneous association test, in which each pupil a column of thirty simple words, and telling the pupil to give the first suggestion for each word for eighty-five seconds. (3) An association test, in which the pupils wrote for each word of twenty words the word that meant just the opposite. (4) An adding test in which the pupils wrote columns of ten one-place digits. (5) The "A-Test," in which the pupils crossed out the A's of a pied page for 100 seconds. Six series of these tests were made up. The first and second series of each test were given before dental treatment. "The last two tests (series) were given to five months after the dental treatment had been completed to the pupils, while tests 3 and 4 were given only one or two months after the beginning of the treatment for more than half the pupils." All were group tests by the author "or by proxy." Besides the dental treatment these pupils were given instruction on oral hygiene and correct eating, and a nurse followed up the cases, giving individual instruction to parents and pupils, and noted whether the instructions were being followed. This is the experiment and its conditions. Does it meet the standards of accurate scientific work set up for others by the author? Let us see. First, as to the tests themselves. Are they of such a nature as to measure small differences in intellectual efficiency and working capacity? They have to measure small differences, equal to considerably less than the normal mental development, for no one would expect very large differences in the course of several months following dental treatment. We do not know whether they measure intellectual efficiency at all, for

even. That any one of them alone reliably measures small differences is surely an unwarrantable assumption. Only five different tests are used. We recall the author's statement that in the Binet-Simon scale of tests for each age-group should be increased from five to ten to make those tests reliable. Yet the Binet-Simon scale does not measure differences smaller than that between two consecutive years of normal development, and it measures this difference not with a single test of one age-group alone, but with several age-groups, or twenty-five tests. Second, the procedure in giving the tests. These tests were given to the pupils individually, but were group tests. The author tells us before that the results of group tests are not reliable. He says that in order that the results of any test may be reliable the test should be given by a trained psychologist. These tests were given by the author by proxy, and he does not tell us anything further about the procedure. Third, the statement as to the time interval between dental treatment and the giving of the several series of mental tests is very indefinite. If these tests were given irregularly from one to two months for the third and fourth series, and from three to five months for the last two series, it was a poor procedure on this factor. Third, the pupils tested. Pupils with dental defects were tested before and after dental treatment, but no similar group without dental defects were tested for control. What can we infer at all from the results without such a control? Only twenty-seven pupils were tested. The author told us that in order to establish reliable norms for the Binet-Simon tests not less than a hundred cases for each sex for each age-group should be tested. Fourth, the elimination of other factors that might influence the results as the dental treatment. The aim of the experiment was to determine the degree of influence of the dental treatment. But these pupils received not only dental treatment, as was noted. Can we assume that the pupils made an equal effort in both school work and in the tests, and the assistance and encouragement from parents and home would be left entirely unaffected? What such ado is suddenly made over them? If the tests after the dental treatment showed improvement, to what can we attribute it? Possibly to the dental treatment, possibly to these other changed conditions, possibly to some other improvement that would have taken place if nothing had been done. The pupils at all, and so the results can prove nothing. Yet from the experiment, made under such conditions, and in the midst of scathings and criticisms from the author of the methods of others, several pages of conclusions are drawn. These are, in a word, that the beneficial influence of dental treatment on mental efficiency has been demonstrated; that there are no important sex differences; that there are no important age differences; that the improvement is sometimes general, and sometimes along one line only, as shown by the different results of the five different series of tests. Finally, that "The conclusions which follow from the results of this experiment are of far-reaching importance to the state and nation." The reader of this paper cannot help but be reminded of the following statement in

the Preface: "Owing to these misconceptions (as to the value of amateur Binet-Simon testers) we are today tolerating and fostering work in applied psychology which often is scientifically barren, and sometimes positively pernicious." Or again, in a later chapter when discussing different revisions of the Binet-Simon tests that others have made: "Superficial work like this is misleading and tends to arouse the slipshod standards of scientific work obtaining in this field of psychology."

Faribault, Minnesota.

F. KUHL

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