

tion, wealth and originality of ideas, ideational types, etc.

(8) The combining and the elaborating (verbal) forms of thought ("combination," practical ingenuity, po-
imagination, critical judgment, abstraction, etc.)

(9) Language mastery.

(10) Relation of the emotions and the will to intelligence
(suggestibility, educability, interests, ethical and aesthetic
ment, sense of veracity, justice, exactness, etc.)

(11) The functional relationships existing among
vidual traits which together constitute endowment.⁷

⁷ This article will be continued in the next number of the

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Prior to 1920 - JPA; State Inst. Gen. - Kuhlmann

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ANALYSIS OF DR. KUHLMANN'S ATTACK ON "THE MENTAL HEALTH OF THE SCHOOL CHILD"¹

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Kuhlmann's violent strictures on "The Mental Health of the Child" are so obviously inspired by personal animus so defamatory in character that I should give them no further weight, were it not for the fact that many of the statements are not only misleading and irrelevant, but utterly and inexcusably and irresponsible. The perversion of the facts in some of the statements do not permit of misconstruction either that the reviewer is woefully careless of his facts or that he is willing deliberately to distort facts in order to misrepresent or malign the writer. I cannot allow material distortions and misconstructions to go unchallenged. The reviewer devotes a larger part of his review to an analysis which is literally "full" of blunders and animadversions and vilifications.² I will consider his severest strictures and most glaring misapprehensions.

The reviewer charges that the book is amateurish in part, literary references are supplied in some chapters and not in others, and he fails to see the reason for this discrimination. He particularly dwells on the lack of references in Chapter VIII on "The Present Status of the Binet-Simon Graded Intelligence," and complains that I fail to give any references in this chapter except to "a study previously published and mentioned in this book by the author." The reasons for the lack of references should be obvious to any fair-minded reader. First, the chapters which lack bibliographies are, almost without exception, reprints of *Journal of Psycho-Aesthetics*, September, 1914.

The following suggests the diatribe rather than the impartial scientific analysis which the author is lamentably ignorant of the theory and technique of a study like that of Binet-Simon.

The statement that this "study" is reprinted in the book is false. Only the *Experimental Studies* (which is the citation in the text) is reprinted in *Mental Health*.

ception, reprints of public addresses, and it is not customary to encumber public addresses with lengthy bibliographies. In these chapters I was following the best precedent in long lists of references.

Second, Chapter VIII was prepared for the 1911 meeting of the American Psychological Association frankly as a summary of some of the conclusions arrived at in a larger work which I had not at that time brought into print. This is plain why reference is made to the work in question, "more than half of the nine pages of this chapter is devoted to the "author's own" publication. I fail to see why it is necessary to censure or why an author should be censured for summarizing some of his own conclusions from a larger experimental work and present them in public, even if it requires "more than half of nine pages" to do so. To deny such a prerogative is as short of idiotic.

Third, the "several hundred publications that should have been consulted for this chapter" were not consulted for an excellent reason that "several hundred publications" dealing with the Binet scale were not in existence at the time the chapter was prepared (October, 1911). The date when the address was given is explicitly stated in the text. Evidently the reviewer does not regard dates as of any moment. An examination of the chapter, however, reveals the fact that reference was made to the parallel findings of a few investigators whose publications were available at the time of the writing. The animus of the reviewer is evidently the peevishness which he feels at not finding his own discussions of the Binet scale—but his discussions were not in circulation when the chapter was written. Let it be said, however, that the appearance of later contributions in no wise alters the strictly experimental findings of my work in 1910 and 1911, although they may alter the inferences to be drawn from some of them.

2. The reviewer alleges that I have judged "the results of the tests" from "examining 333 epileptics." This is without foundation. Available confirmatory results are given in Chapter VIII, where reference is likewise made to

studies where the data of still other writers are also tabulated. Moreover, I have been engaged continuously since 1910 in the experimental examination of cases by means of the Binet and Simon mental tests, only a very few of which are epileptics. I have used precisely the same methods of giving the Binet tests to normal cases as to the epileptics. Eventually I shall hope to publish material in print, and we shall then know definitely to what extent the great variation in the Binet tests found in my study, is due to the peculiar organization of the epileptic brain, and to what extent it is due to a variation in the difficulty of the tests. Moreover, it is not amiss to say that years of actual use of the scale for the purpose of **practical diagnosis** of a great variety of cases in university and public school settings entitles the user to the right to express a professional opinion, and gives him an insight into the value of the tests for purposes of diagnosis which it is impossible to get simply by reading and analyzing the experimental results of the testing done by others—usually grade teachers. The reviewer evidently holds that the opinion concerning the value of diagnostic tests given by a physician constantly engaged in diagnosing cases is of more value than conclusions drawn by a research worker from laboratory tests set out by nurses. If that is his opinion I shall permit him to express it without vilifying him for so doing.

The author could not qualify as an expert according to the reviewer's definition." I am not aware that I have ever posed as a clinical expert or clinical skill. On the contrary, it was the realization of the importance of the practical consequences of mistaken diagnoses and my own limitations in attempting to practice diagnosis on these cases for a public school system in 1909 that led me to seek the kind of training needed by a psycho-clinical examiner, not only for the schools, and which caused me to pursue during the next few years a course of training embracing: First, study of the literature on feeble-minded, epileptic and insane cases; second, attendance at special classes and psychological clinics in various institutions in a considerable number of cities in the western and eastern parts of the country (it was while on these study trips I became disgusted with the work of the

amateurs); third, special work in neurological, psychiatric speech clinics in a number of the larger medical centers; the study of various medical specialties in medical school consultation work in practical mental diagnosis in university school clinics, and supervision of public school cases; and study of the medical, psychological, educational, sociological and genetics literature bearing on my problems. The reviewer's actual clinical (sic) experience is, I believe, limited to laboratory psychological research work in an institution for the feeble minded and epileptic. It is from the realization of this limitation that I have come to believe that I know the limitations in the field of practical psycho-clinical diagnosis. I have been speaking only concerning diagnosis and not concerning the mere administration of tests, as the reviewer has mistakenly assumes. My vision is toward the future, not the past, nor even the present. I am interested in constructing standards of preparation for the most expert type of psychological examiner of the future, and not for the type of mediocre examiner now too prevalent in most of the public schools and courts. That no one can today qualify on the standard is beside the mark. Could the physician trained one hundred years ago, or even fifty or twenty-five years ago, qualify as a skilled practitioner today?

4. I did not insist, as the reviewer alleges, "that the scientific and technical training of the psychologist are necessary for a reliable Binet-Simon tester," qua Binet tester, but I insisted that such training is essential if he would also qualify as a sufficiently trained for the difficult work of mental diagnosis.

5. The reviewer implies that my schema for clinical diagnosis is worthless, because similar schemas "have never shown great value in practical work." Unfortunately he gives no evidence to prove the validity of his conclusion. It only represents his own private opinion. Over against this dogmatic opinion we have the well-nigh universal practice by the ablest clinical examiners in the leading hospitals and medical schools in this country who are using analogous schemes of investigation. They have not only used such schemes in conjunction with

a number of such institutions, but have for years made the use of the general scheme of investigation which our reviewer singles out for condemnation. Such experience is not of no value. It will be interesting to know what the reviewer's conception is of a clinical examination in clinical psychology and medicine. I am not aware that he has made any contribution in this field which makes his private judgment of more value than the settled practice of the institutions whose specialty is, namely, the medical schools.

"The epileptic has a special type of mind which causes abnormally irregular results in Binet-Simon testing. Apparently the author has not discovered this fact, or regards it as unimportant." These statements may be taken as typical of the reviewer's reckless regard for accuracy of statement and his apparent desire deliberately to leave erroneous impressions in the mind of the reader. He permits the implication to be made that he is the discoverer of the fact that there are abnormal irregularities in the epileptic's mind. Unless I mistake, my early publication on the epileptic was the first experimental study which pointed out this fact (See *Experimental Studies of Mental Defectives*, p. 106ff). Need I remind any one who has carefully read the book that attention was explicitly directed to the irregularity of the mental development of the epileptic in the introduction which our reviewer, at no time over-cautious of the accuracy of his statements, criticises: "we are able to frame a picture of an interesting spectacle: a case of mental wreckage, in which the integrity of various mental functions has been impaired at various levels of mental development, and whereby the lower psychic levels have been swept away while the higher levels remain intact. The mentality of epileptics makes the picture of mental deterioration that is extremely irregular" (p. 193; also p. 194). Our reviewer calls to mind Karl Pearson's lament: "It is the dark phase of modern science that it steals with a pliant right hand while it stabs with a critical left."

I did not regard this fact as "irrelevant" is demonstrated by the fact, first, that I sought to corroborate my findings by comparison with the results then available based on

testing other types of children (particularly normals), and, second, by the fact that I have deliberately refrained from the scale on the basis of the testing of mentally abnormal individuals.

7. How uncrupulous the reviewer may become in dealing with facts may be illustrated, again, from the following comments: "He concludes that the typical epileptic category of the condition of morosity * * * * while the typical minded station is that of imbecility." "That the epileptic to an institution might be selected cases in any serious sense he does not think likely."

What are the facts in the indictment? The case drawn by the writer as to the comparative intelligence of the epileptic and feeble-minded was simply an empirical statement affecting the groups of epileptics and feeble-minded who were actually studied. The reviewer has taken the liberty of generalizing the statement and applying it to the whole of institutional and non-institutional epileptics and feeble-minded.⁴ The writer assumes no responsibility for the reviewer's unwarranted inferential leap. Moreover, had he read the text with not only more regard for its spirit but for statements of a strictly unequivocal character he would have avoided the second statement quoted above, which is positive. On page 189 of the text we read: "The institutional cases of Skillman may not be representative. Our curve in this respect is valid on the assumption that the epileptics tested are representative. I should not like to think that any worker in this field is ignorant that he does not know that the same statement is not true of institutional cases of the feeble-minded). According to the theory of the probability surface we are justified in regarding them as typical if the selection represents a chance sample. But it is possible that two selective processes have operated in one way to distort both extremes of the curve, etc. * * * We are not able definitely to settle this point until other workers have undertaken similar studies on a large scale." Page 190.

⁴ He has apparently taken a similar unwarranted liberty in his application of experimental findings in the dental experiment, for which I have not claim all responsibility.

ents as the above justify my critic in accusing me of "dog-
" and of overlooking the selective influences which de-
the distribution of cases in institutions! The justifica-
the reviewer's tawdry aspersion ("Alas for the profession
s should come from the 'expert clinical psychologist'")
safely left with the fair-minded reader.

My critic takes me to task for my criticism of certain re-
of the Binet scale: "Superficial work like this is mislead-
tends to arouse contempt for the slipshod standards of
ic work obtaining in this field of scientific psychology."
are the fact in support of this indictment? I shall here
only those charges which, by implication, my critic ap-
his revision of the Binet scale. I did him the courtesy
original presentment not to single him out for special
a, but he has thrown down the gauntlet (in a peculiarly
s manner) and I am forced to meet the issue. First, I
ntended that the revision or establishment of a scale of
nce for normal children must be based on the testing of
children. Therefore, I have refrained from revising the
the basis of my own results with abnormal cases. Kuhl-
as produced a revision for normal children which is based
testing of feeble-minded children, at least so far as con-
s own distinctive experimental contribution to the revis-
th the negligible exception of "forty normal adults" who
ven only two higher age tests, only one of which is a
est. The reviewer contends that had I said "a few
ce mine) of the changes made were based on the per-
ces of feeble-minded the statement would have been cor-
In his "Revision," however, he emphasizes that "the
revision * * * * is largely along other lines" (blackface
han the revisions of others. If so, what is the scientific
his changes largely along other lines if not his own ex-
tal work on the feeble-minded, for it is not apparent that
ime he had done any Binet work on normal children
normal adults" excepted in the case of only two tests).
inated 11 tests from the 1908 scale, added 9 new ones
ted six, but he neglected to state specifically that only

a "few" (sic) of these changes were based on his on the feeble-minded, nor did he so state in respect tailed directions for giving the tests which he supplies so far as he has altered the procedure of others, **much on his work on the feeble-minded**, or otherwise merely the "inner web of consciousness." In other words, specifically state that his revision is largely based on of others, and only to a slight extent on his own work at the time entirely confined to the feeble-minded, so Binet scale is concerned.

Second, I have charged that in some "instances have been * * * supplied although **not a single child tested in those ages.**" This statement applies about the following ages in my critic's scale: "age three months six months," "age one year," and test 1 in age 2. This on the reviewer's explicit admission, "were devised on of these observations (observations by writers on character a careful searching through the literature on them, supplemented by a few chance observations of by own infants * * * *." "The norms for them are necessarily a small number of cases in a number of instances." I find a confession that norms have been embodied in a on the basis of definite experimental tests, but on the recorded observations in literature and the author's **chance** (sic) observations, and this is the type of scientific critic attempts to defend, although he attempts to im scientific competency because I have stated certain mental findings which were based, not on a "few chance tions" but on carefully controlled experiments on 27 receiving mouth hygienic treatment. It may be left to to determine who is guilty of "dogmatism." Can it be critic has developed such a degree of hypermetropic motives in my work that he has become profoundly my beams in his own work? Any one knows that the observations in the genetic literature are usually based on the study cases. I shall let the reader pass on the validity of a

work is "superficial and "tends to arouse contempt,"

he further charged that norms established as the above (from no definite tests, or only from a few tests) are used and used by a large number of uncritical Binet who are neither psychologists nor scientists, and thereby judged or stigmatized on the basis of unproved assumptions." What are the supporting facts? First, I have seen Binet's lowest age tests given in baby clinics by "uncritical testers" who have assumed, and with justice, that the accuracy of the placement of the tests has been demonstrated, and they have been embodied in a scale of tests having the reputation of proved reliability. Second, my own use of these tests in baby clinics and elsewhere, has failed to show that they have any value for grading the intelligence of young infants that would justify one in placing them in an age scale. Third, one of the organizers of the baby clinic who has used the tests extensively with infants tells me that she has discarded the tests because they are not workable. My charge of "unproved assumptions" is based on first-hand observations and tests, not on mere opinion."

My critic has very much to say about my dental tests. In the first place, he demonstrates admirably that he is a past-master at making men of straw, and windmills a la Don Quixote, or of perverting facts clearly stated, or of presenting his assumptions as universally accepted facts.

One would expect a very large improvement in the intelligence of children in several months following dental treatment." Does the reviewer make this statement as a fact or as his opinion or as an alleged fact? Several leading oral hygienists who are consulted by me make precisely this expectation. Possibly these are the only ones, in the reviewer's estimation.

He does not know whether they (the tests) measure intelligence at all, for no norms at all are given." My reply is that we do not determine whether a set of tests measure intelligence or mental efficiency" by consulting "norms," but by examining the character of the tests which are employed. What the tests

measure can only be determined by a critical examination of the tests themselves. That question has absolutely nothing to do with the subject of norms.

"Only five different tests were used," while I claimed that the Binet-Simon scale the number of tests for each age group should be increased from five to ten in order to make the tests reliable." "These tests (my dental tests) were not group tests. The author has warned us before that the Binet-Simon group tests are not reliable." The reviewer demonstrates conclusively either that he has not read the text with ordinary care or that he has no conception of what I mean by clinical examinations and the requirements which I propose for them. The reviewer's distinction between clinical tests and mere mental tests. He appears to labor under the delusion that the tests I gave the dental squad were not clinical tests, and that I so regarded them, and that they should apply to them the standards which I apply to clinical examination. But I have nowhere claimed that the dental tests were conducted as clinical tests. On the contrary, I did not carry them out as group tests, under the usual rigid standards applying to any kind of group testing in educational or clinical mental psychology.

The reviewer accuses me of maintaining that "the Binet-Simon group tests are not reliable." This statement is an admirable perversion of the facts in the case. What I did say was "Norms of mental functioning established by experimental educational psychologists by group tests on squads of children may have little practical value as clinical tests" (p. 219). This statement was not made dogmatically, as the reviewer would fain have the reader believe, appears very clearly from the following statement: "At any rate, some one should make a comparative study to determine whether there is any difference between norms established by group tests and norms for the Binet-Simon established clinically" (p. 220).⁵ "It is quite practical

⁵ In contrast with the guarded character of the above statement, following recent pronouncement of our professedly temperate critic, furnishing a single shred of supporting fact, but suggesting that "actual experience" had "positively and emphatically" proved the development of intelligence "comes practically to a stop at the age of 16." Experimental data now in the hands of the writer will show, "positively and emphatically," that this statement is "dogmatism" ineffable.

al psychologist to give lengthy tests because usually by one sitting he attempts to measure only a limited of traits. But the psycho-clinician, in order to get a ensive picture of his case, may test a very considerable of functions" (p. 221). The difference between the re-conception of a clinical examination (if indeed he has of my own is that he thinks it sufficient merely to give number of tests—"twenty to thirty," "with several age-while my plea is that we must "survey a maximal num-damental functions"—not the same but different func-d the more of these we have at a given age-level the and not merely give a large number of tests in various (wide-range testing), many of which may test pre-e same functions. I do not advocate increasing the ts to 10 for each age, "in order to make those tests re-individual tests, but in order to afford a comprehensive different functions for an accurate *clinical* picture.

author has * * * insisted that in order that the any test may be reliable the tests must be given by a psychologist." The reviewer again misquotes me. What was: "psycho-educational amateurs * * * may be to administer formal psychological tests" * * * must not, therefore, deceive ourselves with the thought re thereby training competent psycho-educational diag-" My critic is prone to put into my mouth any words his fancy.

application he objects to some of these tests being given force of circumstances) by proxy. This comes with grace from one who has drawn important deductions ect to his own Binet revision on the basis of tests made —grade teachers. He avers that the writer "does not thing further about the proxy." That this accusation ess the reiewer will discover if he will consult the un-original, to which he was referred in the chapter in

he contrasts clinical study with mental tests or the Binet tests nical tests, mental tests and the Binet tests were mutually exclu- times his discussion seems to indicate that the clinical examination e with history taking.

question, but which, evidently, he has not seen, although not hesitate to pass damaging judgment on the whole. Such are his conceptions of the scientific reviewer's obligations.

"The statement as to the time interval between denervation and the giving of the several series of mental tests is indefinite." If the reader desires conclusive evidence, the reviewer is utterly incapable of writing an accurate, reliable, or partial review, let him consult page 277, where the procedure of every sitting is given.

"Only twenty-seven pupils were tested, but the author states that in order to establish reliable norms for the Binet tests not less than a hundred cases for each sex for each age must be tested." A cursory reading of the book by an impartial judge will show that I did not set myself the task of establishing "reliable" sex or age "norms" in the denervation. On the contrary, I proposed merely to measure the pupils' improvement by means of a comparison of their successive scores.

The reviewer has not made any discovery, as he might think, when he says that there were other factors than denervation which influenced the results, or when he says that a control squad should also have been used. The writer has again and again called attention to both of these facts, and made allowance for them in the conclusions drawn (e. g. *Mental Health*, pp. 280, 288). Had the reviewer been so minded by motives to play fair with the author he would have stated thus much. The only other construction is either that he has merely skimmed a book which he is attempting to give a partial review, or else he has deliberately set himself the task of discrediting the credibility and competency of the writer.

My critic alleges sarcastically—and with an unconsciousness of his own superior knowledge—that "from an experiment, made under such conditions," the reviewer has "drawn conclusions, the results of which 'are of far greater importance to the state and the nation.'" My reply is twofold: First, I did not base the conclusions wholly upon

the psychological tests, and I pointed this out so clearly to one except those who set out on a voyage of destruction fail to see it (p. 289). Some of the supporting evidence of clinical studies made by duly qualified dentists and nurses. The reviewer evidently does not even know of the existence of such data. Second, I do not know that my critic has made any contributions to the science of oral hygiene which give him a special insight into the physical and mental effects of oral sanitation and thorough mastication. He opposes his own opinion, unsupported even by a pretense of scientific investigation of the problem, to the opinions of a considerable body of men and women who have been investigating the problem for years. Does the reader prefer to follow Kuhlmann's theories and speculations, or the conclusions of those who have investigated the problem at first hand (dentists, physicians, teachers, psychologists, nurses)?

"The Mental Health of the School Child" makes no claim to originality or scientific merit. It is subject to all the defects appertaining to a compilation of scattered addresses. It distinctly disclaimed "systematic treatment of one central theme" (see Preface). It has a right to be judged by what it aims to accomplish, and not by what it does not pretend to do. Whether it is guilty of the above crimes alleged by my critic can be safely determined by the impartial judgment of those who are enabled to read it without preconception and who are not "telescoping" their eyes to find fault, or to invent faults not found.

May I close this peculiarly odious task of exposing to public view what purports to be a scientific review by paraphrasing the statement from the Preface, which our reviewer ironically repeats in the conclusion of his review: "Superficial reviewing is misleading and should arouse the righteous contempt of those who love accuracy and fairness and hate perversion and aspersion."