

THE PSYCHOLOGICAL BULLETIN

GENERAL REVIEWS AND SUMMARIES.

RECENT LITERATURE ON THE PSYCHOLOGY OF TESTIMONY.

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In September, 1909, those who were fortunate enough to attend the twentieth anniversary of the opening of Clark University had the pleasure of hearing two lectures upon the psychology of testimony from the pioneer and best-known expositor of this field of activity, Professor William Stern, of the University of Breslau. The abstracts of these lectures (9) may be consulted for a condensed survey of the problems, the methods, the technical results, and the practical consequences for pedagogy and for law of the work that has thus far been done in this field. In general, Stern's survey covers the field in much the same manner as the review of the subject published in this magazine by the present writer several months ago.¹

The most extended direct contribution to the psychology of testimony that has appeared since the review just mentioned is that of Breukink (2) of Utrecht. This investigator employed the regulation picture tests, but made features of the following points: first, the use of a large number (108) of observers in order to compare the relative importance for fidelity of report of the two factors, sex and general culture; and second, the use of a series of three tests, separated by intervals of one week, in order to determine the extent to which repetition with knowledge of errors (the picture was shown again in each instance after the report had been completed) would improve the fidelity of report. The following are the more important conclusions:

¹ 'The Observer as Reporter: a Survey of the Psychology of Testimony,' *PSYCHOLOGICAL BULLETIN*, May, 1909, Vol. VI., 153-170.

(1) persons of culture (physicians, professors, teachers) give more extended and more accurate reports than do relatively untutored observers (nurses, workingmen, etc.). (2) Men students report slightly more items than do women students, but with less accuracy, particularly when colors are concerned. (3) Practise in reporting increases the reliability of reports, — the improvement being especially noticeable in the depositions and in the answers to suggestive questions. (The resistance to suggestive questions was 75.6, 78.5, and 84 per cent., respectively, in the three tests.) (4) Men offer greater resistance to suggestive questions than do women, but this sex difference is but one-third as great as is the difference between the cultured and the uncultured group. Similarly, there is but little sex difference in the reliability of statements made under oath, but members of the uncultured group took oath to suggestive questions three times as readily as did members of the cultured group. (5) The use of written instead of oral reports apparently tends to increase the number of indefinite answers, but to decrease the number of erroneous answers.

Certain tests introduced by Breukink upon the estimation of temporal and spatial magnitudes led to the following additional conclusions: (6) Short time-intervals (1 min.) are strongly overestimated: intervals of medium length (12 min.) show no overestimation, while longer intervals (35 min.) are oftener underestimated. (7) Women are generally inferior to men in estimating time-intervals, but no marked difference appears in estimating spatial extents. (8) Distances of 2 to 3 m. are subject to slight underestimation; distances of about 20 m. are commonly overestimated, while longer stretches (about 137 m.) are again underestimated. (9) Unless their calling gives them special training, uncultured persons judge distances less accurately than do cultured persons.

Minor contributions to the psychology of testimony are those of Buchholz (3), who relates two incidents illustrative of error in report, and of Schneickert (8), who pleads for instruction in the case of the members of the German police schools in the recognition from verbal descriptions of persons who are sought after by the police.

More activity is to be observed along another line which bears upon the psychology of testimony, viz., the use of the association reaction method in mental diagnosis. On the same occasion as the addresses by Stern there were delivered a series of lectures by Jung (5) which do not directly concern the psychology of testimony, but which are worthy to be mentioned as accounts of the manner in

which the association method has been developed and manipulated by one whose name is most intimately connected with its use.

As regards the application of the method to the detection of information, it will be recalled that, in 1909, accounts of experiments in this field were published by Yerkes and Berry (10) and by Henke and Eddy (4). These experiments have recently been reviewed and criticized by Binet (1), whose comments appear to have been anticipated, in part at least, by the more careful qualitative and quantitative study of the method by Leach and Washburn (6). The general arrangement of the experiment has been similar in all three of these investigations: the subject is allowed privately to open one of two boxes, each of which contains some single object (a watch, a snake, an ink-stand, etc.), and the experimenter endeavors, by means of a prepared list of some 100 terms to which the subject responds as in a regular association test, to determine which box has been opened. Binet's criticisms are in essence these: the association method is more artistic than scientific; its results hinge very largely upon the skill of the experimenter; its fundamental principle—an association that is quicker than another association may be considered a more natural, less reflective, less inhibited association—is sound, but this principle must be subjected to numerous qualifications, *e. g.*, a perfectly natural association may be given slowly; the associations to significant words may be given more rapidly if the subject prepares for the test with sufficient skill in advance; some subjects may take deliberately an attitude of indifference such that all associations have approximately the same speed; finally, it is possible that subjects might conceal their knowledge by deliberately slowing all reactions to times of 3 or 4 sec.

In the more extended and more carefully executed tests of Leach and Washburn, the reliability of the method appears to be sufficiently well demonstrated so far as this particular type of experiment is concerned, for the box that was opened was correctly diagnosed in 52 of 53 trials. An attempt was made also to diagnose the box by reference to the quality (character) alone of the associations. It developed that this method would enable an experimenter to detect the box in a fair number of cases, but that, taken alone, the method is not reliable and is far less serviceable than the method of studying the association times, taken alone. Disregarding the numerous conclusions concerning the use of the quality associations, which are worthy of study by any one who tries the test, the following points may be adduced with regard to the use of the times of the associations: (1) "In all the experiments but four, the average reaction time for words

referring to the object looked at was longer than that for the words referring to the other object." (2) "In rare cases, the dangerous words are reacted to with abnormal quickness." (3) "The longest single reaction time to a relevant word proved, in every series but two, to be that of a reaction to a word referring to the object seen," so that "this record is better than that of the average reaction times" and is "the best single criterion on which to base a decision as to the object seen." (4) "The reaction times to relevant words seem usually, though not invariably, more irregular [larger mean variation] than those for words referring to the other object."

The neat outcome of these more refined laboratory tests does not necessarily guarantee that mental diagnosis by the association reaction method will be of positive service to the jurist, for he will seldom find his conditions so simple and clean cut as those of the alternative box test. This opinion is confirmed in particular by Ritterhaus (7), who declares most emphatically that the method is 'absolutely unfit' for use in criminal procedure. His experiments lead him to assert (1) that a considerable number of persons, especially of women, are so constituted psychically, whether by nature or by circumstances that influence them temporarily, as to render it impossible to apply the method to them successfully, and (2) that, even in the case of those whose mental disposition permits the use of the method, the results, whatever they may be, can never serve unequivocally as bases for legal action.

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