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## THE PERFORMANCE OF PSYCHOPATHS ON THE WECHSLER-BELLEVUE TEST

C. R. STROTHER

A problem of persistent interest to the clinical psychologist is the discovery of characteristics of performance on psychological tests that will serve to differentiate various clinical groups. Such signs, if they can be found, would be of considerable assistance in determining diagnosis in borderline cases and would greatly enhance the value of clinical psychometrics.

Wechsler (1), in presenting the Wechsler-Bellevue test, suggested that it might be useful in differential diagnosis. He has listed the "signs" (test characteristics) which he feels serve to differentiate schizophrenics, psychopaths, neurotics, mental defectives and patients with organic brain disease. Several studies have explored this possibility. Wechsler, Israel, and Balinsky (2) compared the test responses of borderline defective and mentally deficient individuals to items on this scale. Rabin (3, 4) devised a "schizophrenic ratio", derived from Wechsler sub-test scores, which he feels will differentiate schizophrenics from other groups. Magaret (5, 6) has analyzed the Wechsler scores for carefully selected groups of morons, schizophrenics and controls and has suggested three signs which appear to differentiate these groups.

In the course of a study of cases of psychopathic personality, initiated at the University Psychopathic Hospital by Dr. Gottlieb and Dr. Knott, we became interested in an analysis of the psychometric performance of the psychopath and in the relationships between psychometric performance, the electroencephalogram, and certain clinical characteristics. The present paper, however, will be limited to an analysis of the Wechsler-Bellevue scores of a group of adolescent psychopaths.

It is admittedly difficult, if not impossible, adequately to define the concept of psychopathic personality. Most psychiatrists would probably agree with Preu (7) that: "Psychopathic personality is a diagnosis of convenience arrived at by a process of exclusion. It includes an indefinite number of poorly delineated problems of personality development and adjustment which do not happen to fit conveniently into the accepted rigid system of psychiatric diagnosis." It is, however, possible to recognize the unsatisfactory character of the concept and still proceed to attempt to clarify and refine it. For the purposes of the present study, the diagnosis of psychopathic personality has been based on two criteria: (1) the presence of a serious maladjustment which has been continuous or recurrent over a long period of time; and (2) the absence of symptomatology indicating defective intelligence, organic brain disease, epilepsy, neurosis, manic-depressive psychosis, or schizophrenia.

The cases included in the present study are unselected except for age. They have been taken from the out-patient and house services of the University Psychopathic Hospital. There are fourteen cases, ranging in chronological age from sixteen to twenty-one. The data consist in the Wechsler-Bellevue weighted sub-test scores and the verbal, performance, and full-scale I. Q.'s for these cases. The data were examined to determine whether the test performance of this group of psychopaths corresponds to the pattern outlined by Wechsler as characteristic of psychopathic personality.

Wechsler lists nine signs of psychopathic personality. The first of these is that the Performance I. Q. is higher than the Verbal I. Q. Table I shows the distribution of these I. Q.'s for the psychopaths in the present group.

Table I  
Differences Between Performance and Verbal I. Q.'s

Case No.	Verbal I. Q.	Performance I. Q.	Diff.
1	100	118	+18
2	80	97	+17
3	76	91	+15
4	98	112	+14
5	113	121	+ 8
6	105	112	+ 7
7	107	113	+ 6
8	114	115	+ 1
9	94	94	0
10	89	88	- 1
11	103	98	- 5
12	95	88	- 7
13	112	98	-14
14	105	79	-26

It can be seen that, while in eight of the fourteen cases the performance score is higher than the verbal, in five cases the opposite is true. The median difference found by Wechsler on 520 cases between the ages of ten and sixteen in the standardization population was 9.1, with a standard deviation of the median of approximately 7.9. The median difference for our group of psychopaths is 7.5. Only three cases fall more than one standard deviation from Wechsler's median difference and one of these is in the direction opposite to that predicted by Wechsler. It may be concluded that, for this group of psychopaths, the difference between verbal and performance I. Q.'s is not a reliable diagnostic sign.

Wechsler's second sign is a relatively high score on the Object Assembly test. In seven of our fourteen cases the Object Assembly score is significantly high—i.e., it exceeds the mean of the sub-test scores by more than two weighted score points (or by  $\frac{1}{4}$  of the mean weighted score for I.Q.'s outside the range 80-110). In six cases this score does not differ significantly from the mean and in one case it is significantly lower. Table II shows the distribution of scores on all of the sub-tests, according to the criterion of a significant difference stated above.

Table II

The Distribution of Sub-test Scores in Relation to the Mean Weighted Score of the Sub-tests, According to Wechsler's Criterion of a Significant Difference.

	<i>Inf.</i>	<i>Comp.</i>	<i>Arith.</i>	<i>Dig.</i>	<i>Sim.</i>	<i>P.C.</i>	<i>P.A.</i>	<i>O.A.</i>	<i>B.D.</i>	<i>D.S.</i>
Sig. higher	2	5	..	1	1	5	1	7	6	..
Not sig. diff.	10	9	7	6	11	8	12	6	8	11
Sig. lower	2	..	7	7	2	1	1	1	..	3

Wechsler's third sign is a high Information score. This occurs in only two of our fourteen cases. In ten cases there is no significant difference between the Information test score and the mean sub-test score and in two cases the Information score is significantly lower than the mean.

Wechsler's fourth sign is a low Arithmetic score. Seven of our fourteen cases conform to this sign, while in seven the Arithmetic score does not differ significantly from the mean. There are no cases where it is significantly higher.

The fifth sign is a low similarities score. In only two of our cases is this score significantly low. In one case it is significantly high and in the remaining eleven cases it does not differ significantly from the mean.

The sixth sign is a relatively good score on Picture Arrangement. This occurs in only one of our cases. One case has a significantly low score. The remaining twelve do not differ significantly from the mean. Picture completion, according to Wechsler, is relatively poor in psychopaths. This is true of only one of our cases, while five are significantly superior and the scores of eight do not differ appreciably from the mean.

Wechsler's eighth sign is that the sum of the Block Design and Picture Completion scores is nearly always lower than the sum of the Picture Arrangement and Object Assembly scores. He considers this difference "almost pathognomic" of psychopathic personality. It occurs in only five cases. In eight cases the difference is in the opposite direction. In one case the scores are equal.

The last sign is a moderate inter-test variability. In our cases, the mean range of weighted scores 7.9. The smallest range for any individual is five points; the largest, twelve. Whether or not this can be called moderate is a matter of opinion.

To summarize, out of the signs suggested by Wechsler as characteristic of psychopaths, we find only one—a relatively poor arithmetic score—occurring in a majority of the fourteen adolescent psychopaths included in the present study. Since this study was begun, an unpublished manuscript has been received from R. B. Van Vorst, in which a similar analysis is made for sixteen adolescent male psychopaths in a California school for delinquent boys. His results agree substantially with ours and indicate that no one of Wechsler's signs appears with sufficient consistency to be considered reliable for purposes of differential diagnosis.

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