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USE OF THE MMPI AS AN INDEX TO SUCCESSFUL PAROLE

JAMES H. PANTON*

PROBLEM

The prison inmate's successful adjustment under parole supervision and his satisfactory continuation in the role of law abiding citizen upon his release from parole are contingent upon the successful meshing of many psychosocial factors of varying degrees of complexity. One of the most important of these factors is the basic personality structure of the individual prisoner; by virtue of its limited flexibility, it serves as a focal point and governs to a great degree the rehabilitative measures taken in an attempt to assure that the paroled prisoner will have at least a reasonable chance to function successfully in the social order beyond the realm of custodial control and supervision. The present study is concerned with whether there are measurable personality characteristics which could be utilized to assist in distinguishing successful parolees from parole violators prior to release from prison, and whether either of these groups is similar to or distinguishable from the prison population as a whole. Knowledge in this area would be of considerable value in pre-parole screening, especially in those institutions where attempts to screen out favorable parole candidates are begun during the initial classification process.

METHOD

A sample of 41 male parole violators who had been returned to the North Carolina State Prison during the period 1958-1959 was selected as the experimental group. The control group consisted of a sample of 41 parole non-violators who had satisfactorily served out their parole tenure, had been released from parole supervision for at least one year, and had not returned to prison when selected for the present study. The parole violators had a mean age of 26.5, S.D. (i.e., standard deviation)

8.1; mean I.Q. of 99.2, S.D. 10.6; and a mean education of 8.3, S.D. 2.0. In comparison the parole non-violators presented a mean age of 24.9, S.D. 7.5; mean I.Q. of 100.1, S.D. 9.6; and a mean education of 9.4, S.D. 1.8.

The Minnesota Multiphasic Personality Inventory (MMPI), an objective pool of 566 items divided into ten diagnostic scales and covering a wide range of subject matter—from the physical condition of the person being tested to his moral and social attitudes—, was employed as the measure of personality characteristics of the experimental and control groups. The booklet form of the MMPI was employed in the present study. In this form the items are presented in a booklet which makes possible the convenient administration to groups and the scoring of the answer sheets by IBM test scoring machines or by hand keys. The MMPI is also available in a card form which presents each item on an individual card requiring the subject to sort the cards in various piles according to his response to the item.¹

The valid MMPI profiles of 2,198 consecutive male admissions to the North Carolina State Prison for the period of 1956-1958 were selected to represent the characteristics of the male prison population as a whole. Longitudinal studies over a period of seven years have shown that psychosociological characteristics of admissions to the state prison do not vary to any significant degree from year to year; therefore, it can be contended that the admission sample chosen is representative of the total prison population. The admission sample had a mean age of 24.2, S.D. 8.4; mean I.Q. of 95.6, S.D. 10.9; and a mean education of 7.7, S.D. 2.3.

Mean MMPI profile comparisons and item analysis were employed in accomplishing the objectives of the study. In the profile comparison the MMPI scale means of the three samples were examined for significant scale and profile configuration differences. In the item analysis the statistic Chi Square was employed to select those

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¹ HATHAWAY, THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY MANUAL (rev. ed., N.Y.: The Psychological Corp., 1951).

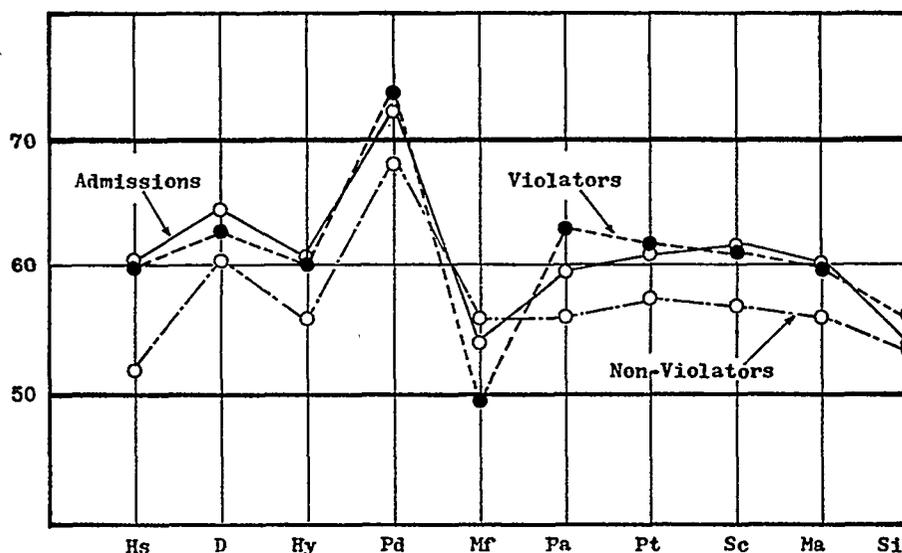


FIGURE I

COMPARISON OF MEAN MMPI SCORES OF 41 PAROLE NON-VIOLATORS, 41 PAROLE VIOLATORS, AND 2,198 PRISON ADMISSIONS

MMPI SCALE DEFINITIONS*

Hs (Hypochondriasis). The Hs scale is a measure of the amount of abnormal concern about bodily functions.

D (Depression). The D scale measures the depth of the clinically recognized symptoms of depression.

Hy (Hysteria). The Hy scale measures the degree to which the subject is like patients who have developed conversion-type hysteria symptoms.

Pd (Psychopathic Deviate). The Pd scale measures the similarity of the subject to a group of persons whose main difficulties lie in their absence of deep emotional response, their inability to profit from experience, and their disregard of social mores.

Mf (Masculinity—Femininity Interest). The Mf scale measures the tendency toward masculinity or femininity of interest patterns. In either case a high score indicates a deviation of the basic interest pattern in the direction of the opposite sex.

Pa (Paranoia). The Pa scale measures the degree of suspiciousness, oversensitivity, and delusions of persecution with or without expansive egotism.

Pt (Psychasthenia). The Pt scale measures the similarity of the subject to psychiatric patients who are troubled by phobias or compulsive behavior.

Sc (Schizophrenia). The Sc scale measures the similarity of the subject's responses to those of persons characterized by bizarre and unusual thoughts or behavior.

Ma (Hypomania). The Ma scale measures the personality factor characteristic of persons with marked overproductivity in thought and action.

Si (Social Introversion). The Si scale measures the tendency to withdraw from social contact with others.

* HATHAWAY, *op. cit.* *supra* note 1, at 19-21.

MMPI items to which the violator and nonvioloator groups made significantly different responses.

RESULTS AND DISCUSSION

Profile Analysis

Figure I provides a visual comparison of the mean MMPI profiles² of the parole violators, parole non-violators, and the 1956-1958 prison admissions. The marked similarity of the violator and admissions profiles is readily noticeable. The

² Data on means, standard deviations, and mean differences appearing between group combinations can be secured from the author.

only significant mean difference between these two groups appears on the Mf scale, with the violators scoring significantly lower than the admissions. This configuration denotes the violators' difficulty in controlling their tendencies toward "acting-out" behavior when confronted with frustration and stress. The work of Hathaway and Monachesi³ has shown that low Mf scores among delinquents reflect a defect in inhibition of aggression and hostility. The similarity of the violator and ad-

³ ANALYZING AND PREDICTING JUVENILE DELINQUENCY WITH THE MMPI (Hathaway & Monachesi ed. 1953).

TABLE I
FREQUENCY OF MMPI SCALE SCORES APPEARING
ABOVE T = 70 FOR PAROLE NON-VIOLATORS
AND VIOLATORS

Scale	Nonviolators (N = 41)	Violators (N = 41)
One or more.....	22	34*
Two or more.....	6	20*
Three or more.....	3	12*
Hs.....	0	9*
D.....	2	11*
Hy.....	0	4**
Pd.....	15	23**
Mf.....	1	0
Pa.....	1	5
Pt.....	6	10
Sc.....	4	8
Ma.....	0	7**
Si.....	1	0

* Significantly different from the nonviolator frequency at the .01 level of confidence.

** Significantly different from the nonviolator frequency at the .05 level of confidence.

missions mean profiles underscores the difficulty in selecting parole candidates from a population in which parole violators more closely reflect the personality characteristics of the population as a whole than do successful parolees.

As shown in Figure I the non-violators present a more normal profile than do the violators or admissions, in that all scale scores, except for the Mf score, are nearer to the absolute normal mean of T = 50.⁴ The non-violators' lack of mean elevation on the Hs scale and their significantly lower mean value on the D scale indicate that as a group these people are more mature in their approach to their problems and are less likely to employ somatic complaints as a defensive mechanism. The lower reading of the non-violators on the conduct disorder scales, Hy, Pd, and Ma, and the elevation of the non-violators above the violators on the Mf scale imply for the non-viola-

⁴ The T score is the standard value of the MMPI raw score and is derived from the formula $T = 50 + 10 \frac{(X_i - \bar{X})}{S}$ where X_i is the raw score and \bar{X} and S the mean and standard deviation of the raw scores for the original normative groups. Whereas a T score of 50 is considered absolute normal, a T score of 70 or above is considered to be critical, as it represents a value two standard deviations or more above the mean of 50 and would be expected to appear in only 2% or less of the normative group responses.

tors a greater acceptance of social mores and less likelihood that they will act out antisocial feelings of hostility and aggression. The lower non-violator mean scores on the psychiatric triad, Pa, Pt, and Sc, imply a greater sense of reality thinking, less emotionally charged sensitivity, and a greater facility for developing and maintaining an adequate pattern of interpersonal relations.

The profile analysis was further pursued by examining the frequency of individual scale scores appearing above T = 70 for the violator and non-violator groups. This data is presented in Table I. The greater pathology of the violator profiles is demonstrated by the greater frequency with which this group presented profiles with two-or-more and three-or-more scales scoring above T = 70. The comparison of the violator and non-violator groups on the data presented in Table I reveals findings in support of the mean scale comparison, in that the violators present a significantly greater frequency of above T = 70 on the Hs, D, Hy, Pd, and Ma scales.

Item Analysis

The violator and non-violator groups made significantly different responses beyond the .05 level of confidence to 26 of the 566 items appearing on the booklet form of the MMPI. In scoring the items, one point was allowed for each item answered in the direction in which the violators differentiated themselves from the non-violators.

TABLE II
26 MMPI ITEMS ANSWERED SIGNIFICANTLY DIFFERENTLY BEYOND THE .05 LEVEL OF CONFIDENCE BY 41 PAROLE NON-VIOLATORS AND 41 PAROLE VIOLATORS

Item No.	Direction of Violator's Response	Item No.	Direction of Violator's Response
64	T	280	T
67	T	307	T
89	T	314	T
106	T	323	T
109	T	338	T
146	T	368	T
147	F	384	T
157	T	410	T
188	F	438	T
215	T	453	T
234	T	457	T
253	T	496	F
271	T	537	T

The 26 items are listed in Table II with the direction of scored response, either true or false, for the violators. These items were designated the Parole Violator Scale and assigned the code symbol PaV. Twenty-three of the items appear to lend themselves to subjective grouping into four clusters, each denoting a particular behavioral syndrome. The first cluster includes items 64, 89, and 109 and appears related to hostility, resistance, and independence of thought and action. The second cluster, consisting of items 234, 253, 271, 280, 410, and 438, is concerned with social imperturbability, characterized by callousness, blandness, disarming frankness, and amorality. A

TABLE III

FREQUENCY DISTRIBUTION OF RAW SCORES AND COMPARISON OF MEANS AND STANDARD DEVIATIONS OF THE 26 ITEM PAV SCALE FOR PAROLE NON-VIOLATORS AND VIOLATORS

Raw Score	Nonviolators (N = 41)	Violators (N = 41)
21		2
20		3
19		0
18		1
17		2
16		6
15		5
14	1	3
13	3	6
12	2	1
11*	2	4
	(19.5%)	(80.5%)
	(80.5%)	(19.5%)
10	2	4
9	4	1
8	4	1
7	5	2
6	3	
5	5	
4	5	
3	4	
2	1	
Mean.....	7.29	13.95
S.D.....	3.24	3.62

Mean/Diff..... 6.66
t-ratio..... 8.76**

* Point of greatest dichotomy.

** Significant beyond the .01 level of confidence.

TABLE IV

T-TABLE CONVERSION FOR THE 26 ITEMS OF THE PAV SCALE

Raw Score	T-Score	Raw Score	T-Score
26	108	13	68
25	105	12	65
24	102	11	61
23	99	10	58
22	95	9	55
21	92	8	52
20	89	7	49
19	86	6	46
18	83	5	43
17	80	4	40
16	77	3	37
15	74	2	34
14	71	1	31
		0	27

third cluster, made up of items 146, 215, 368, 453, and 537, denotes lack of responsibility, inadequacy in interpersonal relations, and preference for a wandering nomadic type existence. The fourth cluster contains items 67, 106, 147, 157, 307, 314, 338, 323, and 384 and is indicative of poor morale, doubt, brooding, prejudice, and the experiencing of strange and morbid thought processes.

Table III presents the frequency distribution of raw scores for the violator and non-violator groups on the PaV scale. The point of greatest dichotomy is established at a cutting score of 11, which serves to identify 80.5% of both the violator and non-violator groups. The difference between the PaV means of the two groups is 6.66, which is statistically significant beyond the .01 level of confidence. It is noteworthy that 46.4% of the violators achieved higher scores than the highest score of any non-violator, and that 43.9% of the non-violators achieved lower scores than the lowest score of any violator.

Validation was accomplished on a group of 28 parole violators who were returned to the North Carolina Prison System after initiation of the study on May 1, 1961. All members of this group had received the MMPI prior to their release on parole. Twenty-two or 78.6% of the group received scores of 11 or more on the PaV scale. During the period of the study (May-August, 1961) 57 inmates with valid MMPI records were released on parole, of which 21 or 36.8% had PaV scores of 11 or above. These results imply that approximately 2 out of 5 inmates going on

parole will have PaV scores at or above the cutting score of 11, whereas 4 out of 5 of those returning to prison as parole violators will have PaV scores of 11 or above. Until further empirical verification can be performed, preferably by other institutions, the PaV scale should be cautiously applied in the screening of prison inmates for parole.

Table IV gives the T-score equivalents of the PaV raw scores. The T-scores, on which the profile is based, are standard score equivalents for the raw scores on each of the scales. They are determined by taking the nearest integral value of T in the same formula employed to develop the T-score tables for the regular MMPI scales.⁵ The mean of the violator group rounded to the nearest whole digit (raw score of 14) is equal to a T-score of 71 on the table.

SUMMARY

The MMPI profiles of a group of parole violators were compared with a sample of parole non-violators and with a sample of 2,198 prison admissions. All three samples were drawn from the research files of the North Carolina Prison Re-

ception Center. The non-violators were found to present significantly less pathological profiles than the violators or admissions. The personality dynamics contributing to the profile differences were discussed. The violators and admissions were found to present very similar profiles; this finding was interpreted as implying that the prison profile as a whole is more closely related in personality structure to the violators than the non-violators.

An item analysis was employed in the identification of 26 MMPI items which successfully distinguished the violators from the non-violators. These items were designated the PaV scale. Twenty-three of these items were subjectively grouped into four clusters, and the behavioral dynamics implied by each cluster were identified. The PaV scale was found to identify successfully 80.5% of both the violator and non-violator groups. Validation was determined on a recent group of violators, of which 78.6% were successfully identified by the PaV scale. It was noted that further validation should be performed prior to the full adoption of the scale as a screening instrument in the selection of prison inmates for parole.

⁵ See note 4, *supra*.