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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE DESCRIPTION AND PREDICTION OF RECIDIVISM AND REHABILITATION AMONG YOUTHFUL OFFENDERS BY THE USE OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

A DISSERTATION

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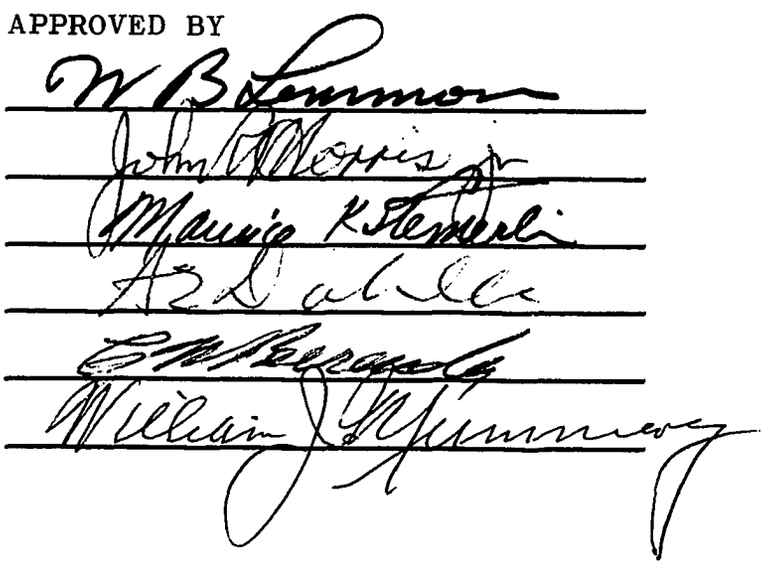
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Norman, Oklahoma

1967

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APPROVED BY



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THE DESCRIPTION AND PREDICTION OF RECIDIVISM AND REHABILITATION AMONG YOUTHFUL OFFENDERS BY THE USE OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

CHAPTER I

INTRODUCTION

Recidivism has been the traditional gauge for assessing the effectiveness of incarceration as a method of social restoration and as a deterrent to subsequent criminal behavior. Rubin (1958) has described recidivism as "one of the crucial phenomena in criminal behavior" and as the "hub of the whole treatment machinery." Conrad (1965), in discussing the importance and the deficiencies of this gauge, stated that the use of this criterion, together with its accompanying refinements, represents the best single measurement of correctional effectiveness.

Accordingly, the extensive importance of recidivism to the correctional apparatus in terms of treatment success, protection of society, and financial expenditures has generated considerable interest in its prediction. In this connection, Mannheim pointed out that although

prediction of recidivism and rehabilitation has always been inherent in the functions of the correctional apparatus, the introduction of scientific approaches to prediction is a recent historical development.

> All those concerned with the administration of criminal justice, judges and magistrates, practical and theoretical penologists and penal reformers, have been trying to predict throughout the ages, consciously or unconsciously, but it is only in the course of the present century that their efforts have been subjected to systematic and scientific inquiry (Mannheim, 1965, p. 141).

He also observed that the need for prediction is based on an essentially non-retributive philosophy and practice of penology.

Systematic, scientific inquiry concerning recidivism began with the work of Professor S. B. Warner who in 1923 published his study of Massachusetts inmates. Five years later Bruce, Burgess, and Harno (1928) published their well-known study of 3,000 Illinois inmates. Correlating demographic data with either success or failure on parole, they derived twenty-one factors as predictively relevant. Equal weight was assigned to each factor. The practical value of the study was unique in that the experience tables were actually used in the decision making processes of the Illinois Parole Board.

In 1930, the Gluecks published 500 Criminal Careers. They subsequently developed experience tables for the prediction of delinquency (Glueck and Glueck, 1950). Their

methods are among the most complex available. Their use of the Rorschach test to measure personality correlates of delinquent behavior is indicative of a recent trend which is basic and important to the present study.

Essentially demographic data were utilized by Mannheim and Wilkins (1955) in the construction of their prediction tables, now regarded as a landmark in this field. They included a psychologist's estimate of recidivism potential as a factor in their tables. Utilizing Wilkins as a consultant, the California Department of Corrections developed prediction tables based on similar variables. Conrad (1965) has described the development and practical implementation of these methods.

The value and the accuracy of prediction methods remain controversial, but the trend toward their extended use is very clear. Improvements in methodology appear to be yielding results that remain increasingly stable through cross validation. Cross validity results in excess of ninety per cent have been reported for the Mannheim-Wilkins tables as well as for the Glueck tables (Mannheim, 1965).

Recidivism as a Function of Personality

Schuessler and Cressey (1950) published a survey of American studies which were designed to reveal differences between offenders and non-offenders. After reviewing a total of 113 studies, they concluded that in

approximately sixty per cent of them no appreciable differences were found; in the other forty per cent, non-offenders were more clearly identified. The authors observed that methodological problems, such as inadequate control groups and deficiencies of the various tests, contributed to the relatively low level of successful identifications. In view of these and other considerations, they reached the general conclusion that significant and appreciable connections between criminal behavior and personality factors had not been demonstrated.

This conclusion has been criticized by Clinard (1957) on two grounds: (1) failure to differentiate among criminal activities resulted in oversimplification of the basic problem; (2) the survey included very few studies that utilized the recently developed Minnesota Multiphasic Personality Inventory (MMPI). On the basis of Clinard's criticisms, Schuessler and Cressey's conclusion must be considered a reflection of weaknesses in the reviewed studies rather than a clearcut demonstration that no lawful connections exist between personality and criminal behavior.

Three studies that have utilized psychological tests other than the MMPI are cited here as examples of research based on assumed relationships between personality and criminal behavior. They illustrate problems that have been approached through psychological testing, methods

employed, and some of the results achieved.

Perhaps the best known study of this type is the Gluecks' Unraveling Juvenile Delinquency (Glueck and Glueck, 1950), a comparison of 500 delinquents with 500 non-delinquents in terms of social factors, home factors, and the Rorschach. Schachtel interpreted the Rorschach results and concluded that the delinquent subjects exceeded the non-delinquent subjects in assertiveness, resentment toward others, hostility, defiance, ambivalence toward authority, suspiciousness, impulsivity, and extroversion. They were also more destructive; they suffered less from fear of failure and defeat; they were less cooperative, less conventional, and less self-controlled.

Grygier (1954), in a book entitled Oppression, has reported the results of an extensive study of fifteen delinquent and fifteen non-delinquent Polish subjects who had been displaced but had similar backgrounds. A central feature of the study was the measurement of the effects of oppressive treatment. Grygier worked from the basic premise that delinquents are much more prone to be extrapunitive toward others. Their basic orientation is to direct hostile aggression outwardly in contrast to non-delinquents who are more inclined to be intrapunitive or impunitive. Grygier postulated that aggressive, extrapunitive behavior is a function of oppressive treatment.

The two groups were matched on the basis of

citizenship, sex, nationality, religion, and intelligence. Special effort was made to select subjects from similar types of communities. To facilitate the measurement of oppressive treatment effects, Grygier contrasted the groups according to the extent of their concentration camp experience. He employed the Thematic Apperception Test (T.A.T.) and Rosenzweig's Picture-Frustration Study (P.F.S.) for personality measurement.

The results of the study were summarized in four concise hypotheses which obviously reflected the role of the test data in their origins. Two levels of personality had been measured and found to be operant in relation to delinquent behavior: the level of fantasy and the level of action. Aggression was found to be a defense as opposed to a means of gratification; under oppressive conditions the subjects perceived it as the necessary vehicle for the avoidance of destruction. The environment is perceived as threatening; the personal situation is experienced as frustrating; and aggression at the level of action is highly related to these conditions. The final hypothesis depicted oppressive treatment and oppressive environmental conditions as clearly related to the formation of the antisocial character structure. The most salient feature of this character structure is extrapunitive behavior at the level of action but the experience of being a "victim" at the fantasy level. Other important aspects of the character structure

were egocentricity, external conflicts, and sharp in-group versus out-group distinctions with hostility toward out-groups. Strong behavioral evidence in support of these hypotheses was found in the crime and delinquency rate of the oppressed group, a rate forty-five times that of the control group.

Grygier's study made an important contribution to the methodology for follow-up studies that utilize psychological test data. He felt that the T.A.T. measured aspects of personality out of immediate awareness, such as needs and unconscious drives, while the P.F.S. yielded responses highly related to actual behavior in life situations. The integration of these three elements--needs, extrapunitive test responses, and actual behavior--accomplished a major goal of research into criminal behavior.

Sullivan, Grant, and Grant (1957), have proposed a theory designating seven levels of experiential organization as a framework for predicting recidivism. Based on the general assumption that delinquent behavior is a function of arrested development at early stages, the propensity toward organizing experience in infantile ways provides some index for the type of behavior patterns that will be repeated. Their rationale is stated as follows:

> In the present paper, we shall focus to a large extent upon the development, perception, and integration of experience that characterize the delinquent personality. It is our belief that an understanding

> of delinquency can best be achieved from a study of interpersonal relationships and the interactions among individuals, groups, and situations. By focusing on the complex of social interactions rather than upon single elements, the experimenter deals with units of analysis adequate to his predictive tasks. Further, as the adjustive changes or dynamics involved in these interactions become known, the prediction of behavior and the facilitation of psychological change in presently delinquent persons and groups will be increasingly possible (Sullivan, Grant, and Grant, 1957, p. 373).

For each of the seven levels of experiential organization, a description of a child, an adult, and the delinquent are provided. The seven levels are: (1) Integration of Separateness, (2) Integration of Nonself Differences, (3) Integration of Rules, (4) Integration of Conflict and Response, (5) Integration of Continuity, (6) Integration of Self-Consistency, and (7) Integration of Relativity, Movement, and Change. Delinquency is seen as a potential problem at any of the first four levels. Although rare, delinquent behavior may occur at levels five and six. Such occurrences are regarded as "situational" rather than developmental.

The theory has demonstrated its heuristic value through a number of studies which tested its predictive powers. Grant and Grant (1959) conducted a study at Camp Elliott with naval prisoners and group supervisors as subjects. Both were classified in terms of maturity level, and various combinations of treatment groups were created on the basis of the classifications. It was predicted

that a treatment combination of high maturity prisoners with high maturity supervisors would yield the most successful results when the prisoners returned to active duty. This prediction was correct. It was also discovered that high maturity prisoners were less successful when they were placed in companies with low maturity supervisors. The results indicated that recidivism and rehabilitation could be predicted from maturity level ratings. Recidivism was also shown to be a function of the extent to which the treatment situation was appropriate to the subject's level of experiential integration.

Recidivism as Measured and Predicted by the MMPI

Dahlstrom and Welsh (1960) have provided a thorough review of the studies of criminality through use of the MMPI. A considerable body of literature has developed in which two major problems have been explored: the discrimination of prisoners from non-prison populations and the identification of inmate types in contrast with other inmates. The more general type of discrimination was attempted first, and research with the well-known Psychopathic Deviate scale has been a major contributor to this area of knowledge. Many factors other than the one scale and its measurement dimension are now known to be involved. Efforts have also been made to find relationships between specific MMPI scales, MMPI configurations, and types of criminal

activity.

The work of Panton in this area is adequate for summarization of results up to this present time. Utilizing the regular clinical scales, Panton studied 1,313 North Carolina inmates in search of profiles to fit six crime classifications. After analyzing the results he concluded that there is a

> ...distinct prison population profile which may be employed to give added knowledge of prison population variations in personality profiling as compared to the profile of people in general. However, there appears to be no marked difference between the profiles of six major crime classification groups. Even though several of the diagnostic scales discriminate at the .01 level of confidence between various crime classification group combinations, none of these discriminations are of such frequency or magnitude to warrant the use of separate crime classification profiles (Panton, 1958a, pp. 307,308).

Efforts to identify individuals who would return to and persist in criminal activity in general were begun soon after the MMPI was constructed. Clark (1948) apparently began but by no means ended the search for MMPI identification and prediction of recidivism. He developed the Recidivism scale by comparing groups of military offenders who were guilty of the offense of being AWOL. One group was composed of multiple offenders, and the others were first offenders. Clark applied the scale in a cross validation study by contrasting a group of soldiers who went AWOL from a basic training program with a group who remained in training without incidence of this

particular offense. He found that the Recidivism scale successfully discriminated the groups at the .05 level of confidence.

Freeman and Mason (1952) applied Clark's Recidivism scale to Washington State Penitentiary inmates in another validation effort. The subjects were two groups of Washington state admissions: a group of sixty classified as "recidivists" and a group of forty defined as "first offenders." They found the scale to be ineffective since no statistical significance was achieved. After the failure with Clark's scale, they sought to construct another for their particular population. Utilizing two groups of 100 each, separated by the criterion of first offender and multiple convictions, they constructed a new scale; still, the cross validation effort was unsuccessful. As a matter of fact, the means were closer on the next consecutive cases than on the norm group.

Panton (1962a) points out that these studies were hampered by lack of adequate follow-up information on the first offender samples. Seeking to profit from the experience of others, he began developing a scale to identify recidivists by selecting fifty first offenders aged forty or older and comparing their MMPI responses with those of fifty men who had a minimum of three convictions with sentences served for those convictions. The means of these two groups differed significantly on Clark's

Recidivism scale, but once again the scale failed to differentiate the two groups. A different approach was obviously required. By experimenting with the raw data, he discovered that a combination of the Psychopathic Deviate and Prison Adjustment scale items, after elimination of overlapping ones which were scorable True on one scale and False on the other, yielded a new scale which with a cutting point of thirty-two (raw score) successfully divided the two groups beyond the .01 level of confidence. This was the point of greatest dichotomy. The scale became known as the Habitual Criminal scale.

A cross validation study was conducted utilizing 685 subjects who were distributed unevenly among the following six classifications: normals accepted for prison employment, ages 21-44; normals rejected for prison employment, ages 21-44; first offenders, 40 or older and 17-36 (parolees); recidivists with three or more prior sentences; recidivists with two prior sentences; and recifivists with one prior sentence. The three recidivist groups were subdivided further according to age with groups of 40 or older, 30-39, and 20-29.

The results revealed that the means of the normal and first offender groups were all statistically different from the means of the recidivist groups, but predictive accuracy declined considerably with the reduction in the number of prior sentences served. The first offenders,

ages 20-29, with one prior sentence have specific relevance to the present study. The Habitual Criminal scale yielded results of 62.9 per cent identification for this group. Concerning these results Panton concludes as follows:

> ...the scale was unsuccessful in the identification of recidivists who had served only one or two prior sentences. It is felt that the large percentage of 20-29 year olds identified reflected the probability that these individuals would in all likelihood be returning to prison on future additional sentences; whereas the elder groups were less likely to continue their criminal activities. The author feels that the HC scale should be used with caution until it can be submitted to further validation, probably with additional first offender groups (Panton, 1962a, p. 136).

The evidence is conclusive that first offenders are a difficult group to study with the MMPI in relation to predicting further criminal activity and eventual incarceration for that activity. Dahlstrom and Welsh have discussed the need for additional research in this area as follows:

> Unfortunately no study is available in which large numbers of first offenders have been examined and followed in their criminal or noncriminal histories subsequent to their imprisonment. This sort of study is needed to determine the value of these personality evaluations in understanding and predicting criminal recidivism. A related problem would be the prediction of subsequent criminal activity after any one imprisonment, whether the prisoner has a long history of convictions or not (Dahlstrom and Welsh, 1960, p. 331).

CHAPTER II

STATEMENT OF THE PROBLEM

This study proposes to discover relationships between the MMPI response patterns of youthful felons and their post-institutional successes and failures in adjusting to society. The proposal and the design are based on the general premise that post-institutional adjustment is partially a function of personality and character structure.

The existence of reliable, consistently recurring relationships between personality and criminal behavior has been hypothesized by numerous authors such as Healy (1927), Klein (1934), Alexander and Healy (1935), Horney (1937), Hathaway and Monachesi (1953), Grygier (1954), and Caldwell (1959). The extent to which this concept has achieved scientific status is a function of the special properties of psychological testing. As described in the Introduction, the Rorschach, the T.A.T., and the MMPI have demonstrated effective powers for certain types of discriminations between offenders and non-offenders. Conversely, the personality portraits have been sufficiently

homogeneous to warn against the possibility of isolating a single dimension such as the "criminal mind." Wootton, in discussing conceptual changes in criminology, observed that the concept of the "criminal mind" or "criminal personality" has been especially vulnerable in the wake of scientific advances in knowledge.

> It is also clear that, as observation becomes more precise, generalizations which previously looked promising have a way of collapsing. Nowhere has this been more apparent than in the study of the 'criminal personality' (Wootton, 1959, p. 301).

Similar caution is appropriate with reference to recidivists. Nonetheless, on the basis of initial impressions they would appear to encompass more homogeneity than any other grouping within the total inmate population. Panton (1962a) has demonstrated such homogeneity empirically among advanced adult offenders with the Habitual Criminal scale. The present problem is embedded in a matrix of ambiguity which can be described as the crossroad between recidivism and rehabilitation. Experience and observation have proven that a reformatory includes one group of youthful offenders who are in a process of criminal career development and another group who will return neither to criminal activity nor to prison. The problem is sufficiently complex that claims for high levels of predictive accuracy are rare.

The limited amount of research conducted in this particular area is one cause of this state of affairs

(Dahlstrom and Welsh, 1960). The MMPI is relatively new in correctional research as is the presence in reformatories of psychologists with research interests of this nature. The present study is an outgrowth of a developing trend toward more correctional research which utilizes the objective properties of psychological testing.

That considerable success has been achieved in predicting recidivism with demographic data is sufficient evidence that more than personality is involved in the phenomenon (Mannheim and Wilkins, 1955). At the same time, it is significant that the Gluecks achieved the highest levels of success by combining home and social information with psychological testing (Glueck and Glueck, 1950). Pointing out that the distinction between demographic data and psychological test data is to some extent an arbitrary dichotomy, Hathaway and Monachesi (1953) expressed the view that the best predictive systems are achieved by combining the two methods. They also expressed a distinct preference for psychological tests. They were optimistic that the MMPI could achieve high levels of accuracy as a single test for the prediction of delinquent behavior.

Studies of recidivists have frequently indicated that a number of typologies may be required to describe important differences among recidivists (Mannheim, 1965; Conrad, 1965). The exploratory nature of the present study precludes the development and testing of hypotheses

based on typological theory. Limitations in size of sample suggest that any typologies which might be discovered must wait for statistical significance. Suggested typologies derived from the data may nevertheless be forerunners of testable hypotheses.

Previous follow-up studies for the description of recidivists and the prediction of criminal behavior have made clear the general problems of design, methodology, and successful execution which are typically encountered in this type of study. These problematical areas can be summarized as follows: (1) determining the length of time that must elapse between release dates of subjects and their final entry into the criterion group; (2) acquiring accurate assessments of post-release subject behaviors; (3) holding constant those dimensions where homogeneity is deemed necessary in the process of matching subjects; (4) creating hypotheses that are testable and relevant.

One important result of the many follow-up studies which have been conducted is an established body of knowledge concerning the length of time that must pass before the major portions of recidivations in a cohort occur. The Gluecks (1930), for example, following their cohort of 500 for fifteen years, found that most of the subjects who eventually returned had done so within the first two years, especially the first year. Subsequent studies have continued to reveal similar results. Glaser (1964) found

that the median time for return in his study of 308 recidivists in midwestern federal penitentiaries was 3.6 months. Nineteen per cent required a year or more, and only five and one-half per cent had been released for two years or more before return. Panton (1962a) utilized a minimum of one year after date of parole in his cross validation sample for the Habitual Criminal scale.

Follow-up studies have also provided accurate information concerning rates of recidivism. The Gluecks (1930) discovered that about thirty-two per cent of their sample returned within the first five years. Glaser (1964) reviewed a number of follow-up studies such as the one at Minnesota Reformatory, St. Cloud, which showed that thirty-eight per cent of the releasees from July 1, 1944, to June 30, 1945, had returned within five years. Twenty-one per cent of these were for actual reconviction. Most of the others were returned for parole violation. Appendix A contains figures concerning recidivism rates for Oklahoma State Reformatory and the Missouri State Reformatory from 1961 and 1964. On the basis of those figures, the sample of recidivists for the present study is to be drawn from the total of the approximate thirty-five per cent who have returned to Oklahoma State Reformatory from 1962 through 1965.

With reference to the second problem, numerous objections have been voiced concerning the use of the

oversimplified criterion of actual reincarceration as a gauge and measurement of the complex process of rehabilitation (Conrad, 1965; Mannheim, 1965). Probation and parole services have brought about many changes in this practice, and the concomitant improvements in correctional research appear to have been substantial. Although the present study was conducted with minimum assistance from such sources, an unusual aspect of the study is that the subjects maintained a relationship with an agency administratively independent from prisons and law enforcement agencies. The three sources of information for this study are the F.B.I. reports on each subject, the individual case folder as compiled by Oklahoma State Reformatory, and the case record as compiled by Oklahoma Vocational Rehabilitation. Even though these sources combined will yield more information than the simple fact that a subject has returned to prison, total yield will embody gaps which could have been usefully covered.

While discussing the problem of selection and matching of subjects, Grygier observed: "The most obvious and usual basis, the best criterion for the selection of a sample, is the degree to which it may be considered representative" (Grygier, 1954, p. 29). He then concluded that he was compelled to be satisfied with less than the stated ideal.

On the basis of their extensive experience in

subject matching for the construction of prediction tables, the Gluecks have provided a brief, concise statement outlining the rationale for the matching process:

> Why did we match the delinquents with the non-delinquents in respect to age, general intelligence, ethnic derivation, and residence in underprivileged urban neighborhoods?
>
> ...First, since the ultimate comparison should cover subtle processes of personality and environment, the more general or cruder factors should be controlled in the matching; second, those traits which typically affect a whole range of factors ought to be held constant; third, those general characteristics which have already been explored sufficiently by other investigators and about which there is much agreement ought to be equalized in the two groups (Glueck and Glueck, 1952, pp. 12, 13).

The population from which the subjects are drawn for this study may be described from three vantage points which are similar but nevertheless variations of potential significance. In the most general sense they are youthful offenders of the typical reformatory type. At this level they share similar characteristics with a large group of people across the United States. They are more specifically young offenders in Oklahoma, drawn from this population between 1962 and 1965. Appendix B contains excerpts from the Biennial Report of the Reformatory for 1962 through 1964. The general characteristics of the population may be studied there. The population is very specifically limited to those inmates in the Reformatory who in that time span became clients of Oklahoma Vocational Rehabilitation. The Oklahoma residency factor and the client factor place

potential limitations on the generalization of the results to the highest level of categorization, but the bias in favor of character structure and personality factors as being more important than those factors holds forth the possibility of broader generalizations.

One goal of this study is the creation of hypotheses that are testable and relevant. The design facilitates the variation of personality factors while numerous other variables are held constant or at low levels of fluctuation. Sturup (1964) has provided a description of the process through which recidivists develop. Discussing the problem within a wide perspective, he highlights the complexity of the process. He ascribes considerable importance to personality factors; however, in addition to viewing the family and peer groups as relevant, he sees every aspect of official handling such as police and court relations, community attitudes, and newspaper reports as also relevant and inextricably involved in the production of the final result. He states that a "mere survey of the personality patterns of all first offenders would be totally inadequate for this purpose" (Sturup, 1964, p. 2).

Such magnitude of complexity and subtlety of interrelationships among contributing factors makes the prospects of measuring all factors, disparately or simultaneously, appear very difficult and remote. Some relationship must exist between the complexity of recidivism

among youthful offenders and the difficult path that single MMPI scales have traveled in efforts to isolate it.

A number of explanations can be offered to account for the failure of single scales to reach and maintain statistical significance among civilian populations. A relationship between recidivism and an existing scale or a scale as yet undeveloped may exist but remains undiscovered. Another potential explanation rests on the apparent existence of different types of recidivists. This would indicate a possible need for a scale or scales to delineate various types. Closely related to this is the fact that the MMPI is constructed so that the interrelationships among scales reflect varying degrees and aspects of personality. An actuarial approach (Marks and Seeman, 1963) is required as a response to this basic nature of the Inventory. Finally, relationships between MMPI patterns and certain demographic data are the most logical combinations for achieving a complete picture. The work of Johnston (1955) represents a preliminary effort in this direction with specific reference to the MMPI.

CHAPTER III

METHOD

Testing Procedures

For approximately the last eight years, as a regular part of the reception and processing procedures at Oklahoma State Penitentiary, McAlester, an abbreviated form of the Minnesota Multiphasic Personality Inventory has been administered to each inmate who was capable of completing it. The abbreviation involved the removal of about 100 of the total 566 item pool. The California Test of Mental Maturity was administered as a part of the same process. Both tests were ordinarily hand scored by the inmate in charge, and the scores were recorded on data-profile sheets which were then inserted in the classification jacket, making the information part of each inmate's permanent record. The original answer sheets were destroyed until June, 1965, thereby making that data unavailable for the present study.

For several reasons, therefore, the first full-time Psychologist for the Vocational Rehabilitation project began to administer the MMPI in complete form in the

Reformatory at Granite to a number of applicants for agency services. One important reason was the need for a picture of the prospective client's current psychological functioning. By the end of 1964, the MMPI had become both an essential and a routine part of a battery of tests used in screening each prospective client. The scales which constitute the Prison Classification Inventory (Panton, 1962b) were added to the procedure in 1965, and the PCI profile sheet was also subsequently included in the folder. The MMPI data along with other tests and information became a permanent psychological file for each applicant. The test data for this study were drawn from those files.

Validity scales L, F, and K served as criteria for the exclusion of certain types of test profiles. When L scores were above 70, when F scores were above 80, and when K scores were above 75, records were not used. The MMPI validity limits employed in this study were actually more rigorous than these scores imply. Only one case had an F score above 70, a 76, and only one case had a K score above 70, a 74. These restrictions were imposed because it was assumed that the consideration of records with special validity problems could be studied in relation to delinquent behavior in their own right and because records with validity problems were not available in sufficient number to study that specific population.

The limits based on the F scale may be especially

significant for the final results of this study. Dahlstrom and Welsh have described the rationale and the research which link high F scores with a delinquent orientation.

> Very high F scale elevations, with raw scores from 16 to 20, are usually produced by patients with frank psychoses, although they are also obtained from test subjects who are resistive to the test and to the assessment process. For example, Hathaway and Monachesi (1958) obtained scores in this range from young test subjects who were giving only partial attention to the test items, probably at those times when a proctor was near them during group testing, and who were responding to many of the questions without regard to the content. These subjects showed the same sort of resistance to authority outside the test setting and had a high preponderance of delinquency records.
>
> Some clinicians have noted that a young subject going through a period of rebellion against his family and its traditional values and mores may respond to some of the F items in a way different from someone either more accepting of family domination or free from such ties and demands. The F scale, like scale 4, contains many items bearing on family relationships (Dahlstrom and Welsh, 1960, pp. 142, 140).

The findings indicate that high F scores of themselves can be predictors of strong delinquent orientations.

This type of control for F scale scores obviously affects the F-K index (Dahlstrom and Welsh, 1960). Malingering has been associated with large F-K discrepancies in the positive direction, usually a discrepancy of more than nine (Gough, 1950). Thus, this problem area is also essentially ruled out of consideration for this study.

While these limits are psychometrically and statistically sound (Hathaway and McKinley, 1951; Carson, 1960;

Dahlstrom and Welsh, 1960), some of the well known characteristics of inmate populations require a comment about "response set" and "faking" problems. The areas of potential variability might be categorized as the "test-retest" effect and the "audience" effect. The fact that nearly every subject has taken the test twice might have some influence on the results. However, while taking the test at McAlester for the first time, the inmates are generally aware that the record is for prison use. They might suspect that the results could be used in influencing their classifications and work assignments or in granting of parole. During the second administration at Granite, they expect that their results will be used specifically in relation to their application for Vocational Rehabilitation services, and their response set tendencies could be influenced by the nature and level of motivation to become a client. Beyond this it is assumed that the records used in this study reflect the work of men who have carefully followed the instructions of the MMPI booklet.

Twenty-eight MMPI scales were chosen for data analysis. Table 1 lists these scales with their abbreviations as they are generally referred to in the MMPI literature.

TABLE 1

NAMES AND ABBREVIATIONS FOR TWENTY-EIGHT MMPI SCALES SELECTED FOR DATA ANALYSIS

Name	Abbreviation
Lie	L
Validity	F
Correction	K
Hypochondriasis	Hs
Depression	D
Conversion Hysteria	Hy
Psychopathic Deviate	Pd
Masculinity-Femininity	Mf
Paranoia	Pa
Psychasthenia	Pt
Schizophrenia	Sc
Hypomania	Ma
Social Introversion	Si
Prison Adjustment	Ap
Escape	Ec
Habitual Criminal	HC
Parole Violator	Pav
Homosexual	Hsx
Anxiety	A
Repression	R
Defect of Inhibition and Control	Dc&i
Sensorimotor Dissociation	SD
Ego strength	Es
Ego Resiliency-Subtle	ERS
Ego Resiliency-Obvious	ERO
Ego Control 5 Male	EC5M
Dy3	Dy3
Repressor-Sensitizer	RpSt

Subjects

Fifty men, each of whom had been convicted of a felony and sentenced to Oklahoma State Reformatory, served as subjects in this study. They were divided into two groups of twenty-five; the members of one group had been reconvicted for a felony after their release from Oklahoma State Reformatory, and the members of the other group had no record of reconviction on file with the Federal Bureau of Investigation as of October 26, 1966. The two groups will subsequently be referred to as the "rehabilitated group" and the "reconvicted group." There were five exceptions to the criterion of actual reconviction. Four members of the reconvicted group were returned to prison on the basis of parole revocation. Another member was incarcerated and awaiting trial at the time of subject selection, and he was later acquitted by a jury. Three members of the rehabilitated group had served a sentence for a previous felony.

The criterion of a valid MMPI completed before release has already been described. Age, intelligence, race, amount of time served in prison, types of crimes for conviction, educational background, time out of prison, and acceptance by the Vocational Rehabilitation agency are all areas in which a general homogeneity was regarded as desirable. The degree of matching achieved in each of

these areas varied considerably, but intelligence, number of convictions, race, and educational backgrounds are the areas in which the most success was achieved. An individualized review of most of these variables reveals the level of success in the matching process.

Intelligence.--Full Scale, Language, and Non-Language I.Q.'s based on the California Test of Mental Maturity were available on all but one or two subjects. Scores from the GATB (General Aptitude Test Battery) were substituted in these instances. Table 2 affords a comparison of the two groups in terms of intellectual functioning by a listing of all I.Q.'s with Full Scale I.Q. as a determinant of rank order. The mean Full Scale I.Q. of the reconvicted group was 99 with a range of 81 to 117. The mean Full Scale I.Q. for the rehabilitated group was 96 with a range of 71 to 119. Computation of Language I.Q. scores yielded an average of 101 for the reconvicted group and 95 for the rehabilitated group with ranges of 77 to 128 and 68 to 116 respectively. Non-Language I.Q.'s averaged 98 for the reconvicted group and 99 for the rehabilitated group. The ranges were 81 to 116 and 77 to 129.

Using 90 to 110 as arbitrary limits for delimiting the Average Range of intellectual functioning, it can be observed that seventeen members of each group, or about 68 per cent of each group, are within that range. Six

TABLE 2

FULL SCALE, LANGUAGE, AND NON-LANGUAGE I.Q.'S ON CALIFORNIA TEST OF MENTAL MATURITY FOR REHABILITATED AND RECONVICTED GROUPS WITH FULL SCALE I.Q.'S AS DETERMINANT OF RANK ORDER

Rehabilitated Group				Reconvicted Group			
S	L.I.Q.	N-L.I.Q.	F.S.I.Q.	S	L.I.Q.	N-L.I.Q.	F.S.I.Q.
N	116	129	119	d	128	104	117
T	101	119	105	o	121	107	116
L	104	105	104	j	112	116	114
G	100	110	104	r	106	116	110
C	100	118	104	u	104	110	105
M	104	102	103	p	100	107	104
U	97	107	101	y	110	93	102
F	98	104	100	s	108	91	101
A	100	100	100	m	96	107	101
S	104	95	99	g	104	97	101
Y	101	92	98	a	104	97	101
K	106	88	98	h	98	101	99
H	89	107	97	b	99	96	98
B	90	99	94	e	96	99	97
D	92	97	94	t	99	93	97
P	93	95	94	x	96	97	97
J	98	83	92	k	97	95	96
E	86	110	91	c	97	95	96
R	86	96	90	v	97	93	95
Q	89	88	89	f	94	89	92
W	87	92	89	l	89	94	91
X	87	91	89	w	102	81	89
V	91	82	88	i	92	82	88
O	81	89	83	q	80	94	86
I	68	77	71	n	77	88	81
	95	99	96	Mean	101	98	99
	68-116	77-129	71-119	Range	77-128	81-116	81-117

members of the rehabilitation group and four of the reconviction group are in a category typically known as "subaverage" or "Mildly Retarded." This group of people as a group or "type" is well known for its difficulties in yielding clear cut assessments of intellectual functioning because such matters as reading ability, motivation, and intrapersonal conflict can depress their performances on tests such as the California.

Convictions and Time Served.--The legal classifications of felonies can be very detailed and highly specific. Therefore, as a matter of convenience and simplification, a six-category system of felony classification with a two-category system for misdemeanors was developed to include the entire range of felony types for which the men in this study had been convicted. Entries on F.B.I. fingerprint records could also be referred to within this system.

Type 1 includes burglary, grand larceny, and any offense directly involving property. Type 2 offenses are all offenses involving automobiles. These, of course, are related to Type 1, but their frequency and particular nature seem to warrant a special category. Type 3 covers any offenses against persons such as "robbery by force" or kidnaping. Type 4 is forgery or any means of obtaining money by false pretenses. Type 5 is for murder, and Type 6, narcotics possession or activities involving drugs. Type 7 includes all traffic violations and related problems.

Type 8 covers vagrancy, drunkenness, liquor possession, "contributing to the delinquency of a minor," etc.

Table 3 shows the frequency of various offenses on first conviction for both groups, for reconvictions in the reconvicted group, and the F.B.I. entries for the rehabilitated group. The table shows that fifteen of the rehabilitated subjects and eleven of the reconvicted subjects were initially sentenced for Type I offenses. Type 2 offenses account for four of the first group and seven of the second; Type 4 offenses are listed twice in the rehabilitated group and three times in the reconvicted group. Thus, crimes involving property and money account for the major portion, 84 per cent, of the crimes for which both groups were initially convicted. The use of force against persons appears four times in each group.

The actual time served at the Reformatory by each member of both groups was a difficult variable to control. In this study the length of satisfactory adjustment time after release was given precedence as a variable over <u>time served</u> in the Reformatory. <u>Time served</u> actually was controlled better than might have been expected by this method of selection. The groups appear to be well matched except for the five men in the reconvicted group who served nine months or less. If the groups are divided on the basis of how many in each group served less than one year, the ratio is almost even: eight in the reconvicted group and

TABLE 3

TYPE OF FELONY FOR CONVICTION, LENGTH OF TIME SERVED, AND POST-INSTITUTIONAL F.B.I. RECORD FOR REHABILITATED AND RECONVICTED GROUPS

Rehabilitated Group				Reconvicted Group			
S	First Felony	Time Served yr.mo.	F.B.I. Entries	S	First Felony	Time Served yr.mo.	Second Felony
W	3	4-09	/	n*	3	4-07	#
Y	1	3-05	-	m*	3	4-05	#
Q	1	3-00	/	x	2	3-02	2
O	3	2-11	/	q	2	2-10	2
L	2	2-07	-	e	1	2-03	2
D*	3	2-03	/	g	3	2-00	1
X	1	2-03	-	p*	2	1-11	#
B	1	2-01	//////	u*	1	1-08	1
E	1	2-00	-	h	2	1-06	1
C*	3	1-09	-	f	1	1-06	2
F*	1	1-06	-	d	1	1-05	6
A	1	1-05	/	l	4	1-05	1
K	1	1-05	-	r	1	1-05	1
H*	1	1-04	-	y*	3	1-04	4
P	1	1-03	//////	c	1	1-04	1
T*	2	1-02	////	b*	4	1-03	5
J	2	1-02	/	k*	2	1-00	2
I	1	1-02	-	w	1	0-11	1
N	1	1-01	-	v	1	0-11	1
R	1	0-11	-	s	1	0-11	2
U	1	0-11	/////	a	2	0-09	2
V*	1	0-10	-	i*	1	0-07	4
S	4	0-10	//	j*	1	0-06	#
M	4	0-10	//	o	4	0-05	4
G	1	0-10	-	t	2	0-04	2

Key

1 = Burglary, grand larceny
2 = Illegal use of automobiles
3 = Use of force against persons, robbery, kidnaping
4 = Forgery, obtaining money by false pretenses
5 = Murder
6 = Narcotics possession
7 = Traffic violations
8 = Vagrancy, drunkenness, liquor possession, etc.
* = Paroled
# = Parole revoked

six in the rehabilitated group. Recidivism as a function of personality is the major area of study, thus the inclusion of the very "short termers" as members of the reconviction group can be enhancing to the basic problem.

The fact that the means of both groups for time served are almost equal suggests that the groups are well matched on this dimension. The mean for the rehabilitated group was 1.8 years, and the mean for the reconvicted group was 1.7 years.

Type of Release and Post-Institutional Behavior.--Table 3 shows that six of the rehabilitated group and nine of the reconvicted group were released from the Reformatory under conditions of parole. The others were released by expiration of sentence.

As discussed in Chapter II the assessment of post-institutional adjustment is a sensitive problem. Vocational Rehabilitation files and F.B.I. records on the men in this study are available and usable in a manner which respects the privacy and citizenship of each subject. Assessment of the reconvicted group's post-institutional adjustment will of necessity be more categorical and precise than the rehabilitated group; the nature of the criterion creates areas of ambiguity in both groups, but the ambiquity about the rehabilitated group is greater. Still, a rough estimate of "quality" can be made.

Table 3 shows that there were thirteen men who

have no entries on the F.B.I. record (except "registration as ex-con" which is often mandatory) through October 26, 1966. These entries must not be confused with convictions or "involvement with the law" that resulted in conviction. A one-to-one relationship between F.B.I. entry and actual behavior cannot be assumed from these records; however, it is known that police departments generally report incidents which they regard as serious enough to warrant permanent recording. In a very general sense, these entries will subsequently be referred to as "involvement with the law" after release from the Reformatory.

Six men in the rehabilitated group have one entry, one has two entries, two have three entries, one has four, and one has five. These entries were the following types. Five of the entries were Type 3 offenses; four were Type 1, one each in Types 2, 4, and 6. There were no entries in Type 5. The other entries, seventeen of them as opposed to twelve of the felony types, were either Type 7 or 8, the traffic offenses, drunkenness, vagrancy, etc. Traffic, or Type 7, accounted for eight entries, and Type 8 offenses were recorded nine times.

Five men had out-of-state entries. Within the framework of vocational rehabilitation in Oklahoma, these entries suggest a poor adjustment. It is noteworthy that two of the men with out-of-state entries accounted for twelve of the total number of entries. Another out-of-state

entry was one of the most serious charges investigated.

By combining the information in Tables 3 and 4, sufficient data is available to make a simple, three-way rating of post-institutional adjustment for both groups. By making "High" a category for those with clear records and good occupational adjustment, "Medium" a category for those with questionable adjustment of some kind, and "Low" a category for those with a definite reconviction or very poor records in the rehabilitated group, a simple scale can be constructed that gives a general picture of adjustment for each subject. Within this framework the reconvicted group all receive Low ratings as did three members of the rehabilitated group. These latter had out-of-state entries which included investigation for felony type offenses, and they also had no record of occupational success on file with the Vocational Rehabilitation agency. A Medium rating is assigned to those who have an out-of-state entry, an investigation of a felony type offense, or a poor record of vocational adjustment. On this basis eighteen of the rehabilitated group receive High ratings and four Medium ratings.

In Table 4, skilled crafts and labor account for the major portion of occupations. Subjects F and N, a student and a teacher, are the exceptional members of the group in comparison to the norm. Their post-release training included the pursuit of further college credit.

TABLE 4

REHABILITATED AND RECONVICTED GROUPS COMPARED IN TERMS OF VOCATIONAL REHABILITATION EXPENDITURES AND POST-RELEASE OCCUPATIONAL ADJUSTMENT

Rehabilitated Group			Reconvicted Group		
S	Expenditures	Occupation	S	Expenditures	Occupation
A °	$ 509.00	Welder	a	$ 80.00	Prisoner
B*°	1,061.00	Unknown	b	98.00	"
C	597.00	Machinist	c	260.00	"
D	1,381.00	Beautician	d	155.00	"
E	8.00	Bartender	e	366.00	"
F	1,575.00	Student	f	622.00	"
G	1,123.00	Barber	g	38.00	"
H	1,874.00	Unknown	h	463.00	"
I*°	805.00	Upholsterer	i	244.00	"
J	1,075.00	Unknown	j	76.00	"
K	15.00	Student	k	514.00	"
L	10.00	Truck Driver	l	436.00	"
M*°	1,043.00	Soap Mixer	m	870.00	"
N	1,195.00	Teacher	n	80.00	"
O °	10.00	Messenger	o	2,416.00	"
P*°	10.00	Unknown	p	107.00	"
Q	1,535.00	Barber	q	107.00	"
R	00.00	Cook	r	301.00	"
S	1,073.00	Barber	s	959.00	"
T °	1,024.00	Barber	t	338.00	"
U °	719.00	Laborer	u	782.00	"
V	470.00	Laborer	v	230.00	"
W*	400.00	Laborer	w	344.00	"
X	914.00	Laborer	x	60.00	"
Y	938.00	Barber	y	187.00	"
	$19,364.00			$9,833.00	

*Out of state entries on F.B.I. record.

°Entries on F.B.I. record concerning investigation of felony type offenses.

For the teacher it involved the earning of the Bachelor's degree.

The amount of money expended on each individual was not regarded as a variable on which the two groups should be matched or contrasted. The rehabilitated group received approximately twice the expenditures of the reconvicted group. Generally, data on expenditures in the rehabilitated group reflect the success of the agency and the client in the rehabilitation process.

Age, Release Dates, and Post-Institutional Freedom.--Age and identical release dates were two of the difficult areas in the matching process. Table 5 lists the subjects, their ages, release dates, and length of post-institutional freedom with release date as the determinant of rank order. Examination of the table shows that more of the rehabilitated group were released in 1963 than were the reconvicted group. The major portion of the reconvicted group was released in 1964, especially the latter half of 1964. The imbalance is in a direction enhancing to the basic problem. The rehabilitated individuals will have had a longer time in which to return to prison. As in many other follow-up studies (Glaser, 1964), the recidivists for the most part required less than a year for their return. The average length of post-institutional freedom for a member of the reconvicted group was nine months. The median and the mode were also nine months. Twenty of

TABLE 5

COMPARISON OF REHABILITATED AND RECONVICTED GROUPS IN TERMS OF AGE, RELEASE DATES, AND LENGTH OF POST-INSTITUTIONAL FREEDOM AS OF OCTOBER 26, 1966

Rehabilitated Group				Reconvicted Group			
S	Age	Rel. Date	P.I.F. yr.mo.	S	Age	Rel. Date	P.I.F. yr.mo.
U	25	5/63	3-05	w	22	10/62	0-07
P	18	5/63	3-05	t	20	4/63	0-10
G	26	6/63	3-04	l	23	6/63	0-07
M	26	7/63	3-03	c	20	6/63	1-06
T	22	7/63	3-03	s	20	7/63	0-09
D	26	8/63	3-02	p	20	8/63	0-05
H	22	8/63	3-02	i	17	8/63	0-02
I	23	8/63	3-02	x	22	2/64	0-09
O	21	8/63	3-02	h	22	2/64	1-03
Q	21	8/63	3-02	m	28	5/64	0-10
E	22	11/63	2-11	n	23	7/64	0-02
B	22	12/63	2-10	b	26	7/64	0-10
Y	21	12/63	2-10	q	22	8/64	0-09
F	21	12/63	2-10	r	23	8/64	0-07
C	18	3/64	2-07	j	18	8/64	0-03
N	25	4-64	2-06	f	20	9/64	2-01
K	25	6/64	2-04	o	22	9/64	1-06
S	26	7/64	2-03	y	23	9/64	0-03
J	21	8/64	2-02	e	23	12/64	0-05
R	23	8/64	2-02	u	22	12/64	1-01
A	24	9/64	2-01	a	25	12/64	0-09
V	18	12/64	1-10	g	20	1/65	0-11
W	23	2/65	1-08	k	18	5/65	0-09
X	20	8/65	1-02	v	19	6/65	0-10
L	21	8/65	1-02	d	22	7/65	0-02

the twenty-five reconvicted individuals returned to prison in eleven months or less, and ten individuals required five months or less. Since all but two members of the rehabilitated group have been released for at least twenty months, a major portion of the reconvictions should have occurred.

Age was the most difficult variable in the matching process. The average age for the rehabilitated group was 22 years, 9 months and 21 years, 7 months for the reconvicted group. The averages appear close, but the distribution is skewed toward younger ages for the reconvicted group. The mid-range of the distribution is well matched with thirteen persons between ages 21 and 23 in each group. The older age bracket, however, is skewed in the rehabilitated direction with eight subjects as opposed to three between the ages of 24 and 28. Likewise, the balance is one-sided between the ages of 17 to 20 with ten reconvicted individuals as opposed to four rehabilitated ones in that range. The confounding effects of these imbalances, assuming that there may be some, will be a function of the extent to which chronological age and the implied maturation which may accompany advances in age, are causative factors in the creation of recidivism in relation to personality. The bias underlying this study is that personality factors and maturation level of the psychological, emotional type overshadow chronological age per se in importance.

Data Analysis

An IBM program of the Fortran type was available for the present research. This program correlates as many as forty variables with one another. To meet the specifications of this program, the data were punched on IBM cards in the following order: the previously listed MMPI scales were entered first, then the California Test of Mental Maturity I.Q.'s; the others were months served in prison, age, types of crime (1, 2, 3, 4), and the criterion, rehabilitation or reconviction.

With potential prediction as a goal but an N of only twenty-five in each group, it is necessary to take maximum advantage of chance and whatever differences appear between the two groups. The sample appears small for the development of a new scale; however, Barron (1953) developed the Ego strength scale with an N of 33 and 17 subjects in one group. Other scales have been developed on relatively small N's. The first scale for the measurement of recidivism, Clark's Rc scale, was developed by item analysis. The empirical method of scale development has proved very effective in the development of MMPI scales. Dahlstrom and Welsh (1960) have provided a complete description and critique of this method. With specific reference to inmate populations, Panton has also demonstrated the value of the empirical method of scale development. Operating

without hypotheses based on preconceptions concerning items, researchers have developed scales that stand up under cross validation (Panton, 1958b, 1962a).

The multiple cut-off or actuarial method was also selected for analyzing the data. This method is the obvious, clinical reflection of the correlations, reflecting the relative values and interrelationships of what the MMPI measures. The greatest virtue of this method is that it makes the various levels of each scale available in relation to other levels simultaneously. The final result is a thorough picture of many aspects of personality. The limits on each validity scale served as cut-off points, and it has been pointed out (pages 24 and 25) that these limits controlled to some extent interrelationships with other scales.

CHAPTER IV

RESULTS

Correlations.--The scales and values selected for presentation in Table 6 were chosen from the total number of coefficients resulting from the correlation of every variable with every other variable. Several factors entered into the selection process. Some scales were selected because of their relationship to the criterion. Others were chosen because of low correlation with other scales, and still others were included because of relationships between the scales and criminal behavior established through previous research. Each single scale failed to achieve significance in the regression analysis. Mean differences were also insignificant with one exception to be reported later.

Social Introversion achieved the highest correlation with the criterion with a coefficient of .29; Repression correlated .24, and Habitual Criminal -.24. Psychopathic Deviate and the criterion yielded a coefficient of -.21; Ego strength and Escape correlated -.15 and -.13 respectively. Anxiety (.01), Hypomania (-.06), and Parole

TABLE 6

CORRELATION MATRIX OF NINE MMPI SCALES WITH THE CRITERION AND OF EACH SCALE WITH ALL OTHERS IN THE MATRIX

	Si	HC	A	R	Pav	Pd	Ma	Es	Ec	Crt.
Si	1.00	-.05	.59	.25	.44	-.16	-.09	-.50	.20	.29
HC	-.05	1.00	.36	-.07	.28	.84	.38	-.21	.31	-.24
A	.59	.36	1.00	-.28	.81	.20	.43	-.82	.47	.01
R	.25	-.07	-.28	1.00	-.36	.01	-.55	.18	-.30	.24
Pav	.44	.28	.81	-.36	1.00	-.11	.60	-.66	.47	.07
Pd	-.15	.84	.19	.01	.21	1.00	.31	-.11	.23	-.21
Ma	-.01	.38	.43	-.55	.60	.31	1.00	-.33	.39	-.06
Es	-.50	-.21	-.82	.18	-.66	-.11	-.33	1.00	-.32	-.15
Ec	.20	.31	.47	-.30	.47	.23	.38	-.32	1.00	-.13
Crt.	.29	-.24	.01	.24	.07	-.21	-.06	-.15	-.13	1.00

Violator (.07) had low correlations with the criterion.

Social Introversion and Habitual Criminal correlate -.05 which suggests a need for thorough investigation of the relationship between the two scales in relation to the criterion. Only thirteen items of the 147 total are the same for the two scales, and only five are scorable in the same direction. Social Introversion correlates with the criterion .29 and Habitual Criminal -.24 suggesting that reconvicted individuals tend to score below the mean on Si and above the mean on HC. These relationships suggest directional trends which warrant more extensive investigation.

The coefficient of .84 for Psychopathic Deviate and Habitual Criminal was overdetermined by the structure of the scales. Forty-seven items on both scales are the same and are scored in the same direction. By way of contrast, the .01 correlation of Psychopathic Deviate and Repression suggests two distinct functions for these two scales. The results of correlating Habitual Criminal and Repression are quite similar to the Psychopathic Deviate and Repression correlation result with a value of -.07.

Item Analysis.--An item analysis of Social Introversion and Habitual Criminal carried out on the basis of the correlation results suggested that a number of items on both scales, particularly HC, were failing to discriminate between the two groups. Twenty-three items from

the HC scale drew a consensus from both groups. Fourteen of these items are from the Psychopathic Deviate scale and the other nine are included in the Prison Adjustment scale. Eleven items from the Si scale failed to discriminate the two groups. Appendix C lists all of these items, some of the scales in which they appear in the Prison Classification Inventory, and the direction in which both groups generally agreed on the item.

A large number of items fell into a mid-range where discriminative effectiveness vacillated around sixty-forty, fifty-fifty, or forty-sixty ratios. For example, Item No. 67, scorable True on the Si scale, was answered in the scorable direction by thirteen of the reconvicted group and thirteen of the rehabilitated group. The other twenty-four answered the item False.

Twenty-two items from both scales, selected because the two groups responded to them differentially five or more times, were studied further. An example of this selection procedure is Item No. 124, scorable as True for the Social Introversion scale. Twenty-two members of the rehabilitated group answered this question True. Fifteen members of the reconvicted group also responded to the item as True. Thus, only three members of the rehabilitated group answered the item False but ten of the reconvicted group also answered it False. Making the item scorable in the False direction would tend to lend weight

in the direction of reconviction. The major problem here is the creation of a false positive impression. Through this procedure, eight items, five from the Habitual Criminal scale and three from the Social Introversion scale, remained scorable as they were in the two scales. In order to "load" the scores in the direction of reconviction for high scorers, however, ten items from Si were changed and two from HC shifted. Two items overlapped. Item No. 143 appeared on the Si scale if answered False, but True on HC. In fact, the true response direction proved to be the one toward reconviction for these young offenders. Item No. 231 was scorable on both scales in the false direction; however, the reconvicted group tended to answer it True. It was therefore altered to be scorable in the True direction. The final result of this process clearly leads to a new scale. Table 7 lists the items and their scorable directions for inclusion in the scale. Table 8 lists the raw scores and T conversion scores for both groups. This scale was named the "Recidivism-Rehabilitation" scale.

To test the relative effectiveness with which Social Introversion, Psychopathic Deviate, Habitual Criminal, and Recidivism-Rehabilitation discriminated the two groups, *t* tests were computed for these scales. These results are summarized in Table 9. The Rmn scale achieved significance beyond the .01 level, and the Si scale was significant beyond the .05 level. HC and Pd proved

TABLE 7

ITEMS FROM Si AND HC SCALES RESPONDED TO DIFFERENTIALLY FIVE OR MORE TIMES BY REHABILITATED AND RECONVICTED GROUPS

56. As a youngster I was suspended from school one or more times for cutting up. True (HC,True)

57. I am a good mixer. True (Si, False)

102. My hardest battles are with myself. False (HC, True)

118. In school I was sometimes sent to the principal for cutting up. True (HC, True)

124. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it. False (Si, True)

143. When I was a child, I belonged to a crowd or gang that tried to stick together through thick and thin. True (HC, True; Si, False)

155. I am neither gaining nor losing weight. False (HC, False)

208. I like to flirt. True (Si, False)

216. There is very little love and companionship in my family as compared to other homes. True (HC, True)

231. I like to talk about sex. True (HC, False; Si, False)

244. My way of doing things is apt to be misunderstood by others. False (HC, True)

278. I have often felt that strangers were looking at me critically. True (Si, True)

304. In school I found it very hard to talk before the class. False (Si, True)

316. I think nearly anyone would tell a lie to keep out of trouble. False (Si, True)

359. Sometimes some unimportant thought will run through my mind and bother me for days. False (Si, False)

398. I often think, "I wish I were a child again." True (Si, True)

TABLE 7--Continued

400.	If given the chance I could do some things that would be of great benefit to the world. True (Si, False)
415.	If given the chance I would make a good leader of people. True (Si, False)
469.	I have often found people jealous of my good ideas, just because they had not thought of them first. False (Si, True)
485.	When a man is with a woman he is usually thinking about things related to her sex. False (HC, False)
521.	In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well. True (Si, False)
564.	I am apt to pass up something I want to do when others feel that it isn't worth doing. False (Si, True)

TABLE 8

FREQUENCY DISTRIBUTION OF Rmn RAW SCORES AND T CONVERSION SCORES FOR REHABILITATED AND RECONVICTED GROUPS

Rehabilitated Group		Reconvicted Group	
Frequency	Raw Score	T Score	Frequency
	19	73	1
	17	68	2
	16	65	3
	15	62	2
	14	59	1
1	13	56	5
1	12	54	5
2	11	51	3
4	10	48	2
3	9	45	
6	8	43	
2	7	40	1
2	6	37	
3	5	34	
1	4	32	
	Mean 10.74	50	

TABLE 9

MEANS AND STANDARD DEVIATIONS OF REHABILITATED AND RECONVICTED GROUPS ON Si, HC, Rmn, AND Pd SCALES WITH t TESTS BETWEEN GROUPS FOR EACH SCALE

	Rehabilitated Group			Reconvicted Group	
Scale	Mean	S.D.	t	Mean	S.D.
Si	52	8.36	2.23°	47	7.55
HC	59	10.19	1.74	64	11.97
Rmn	43	6.25	6.82*	57	7.35
Pd	71	9.68	1.52	76	9.47

*Significant beyond the .01 level.

°Significant beyond the .05 level.

insignificant.

Actuarial Results.--The correlations presented in Table 6 show that various scales contribute different dimensions of the personality structure and functioning of the two groups.

A correlation of .29 between Social Introversion and criterion and a -.24 between Habitual Criminal and criterion indicates that reconvicted individuals tend to score below the mean on Si and above the mean on HC. The Rmn scale was constructed so that high scores would be associated with reconviction. Stable cut-off points were selected to facilitate the establishment of an actuary-type system. Table 10 features these three scales with cut-off points and the post-institutional adjustment which each scale suggests that the individual might make. The cut-off point for Si is 54, the cut-off point for HC is 58 (Panton, 1962a), and the cut-off point for Rmn is 50.

Study of the results on the Social Introversion scale shows that twenty-one members of the reconvicted group scored below 54; one scored 54, and three scored above 54. Fifteen of the rehabilitated group also scored below 54, and one scored exactly 54, leaving nine above the cut-off point in the rehabilitated direction. Thus, the predictive problem is a false negative one.

Analysis of Habitual Criminal reveals that twenty of the reconvicted group scored above 58, only five scored

TABLE 10

COMPARISON OF REHABILITATED AND RECONVICTED GROUPS ON Si, HC, AND Rmn SCALES USING STANDARDIZED CUT-OFF POINTS

Rehabilitated Group				Reconvicted Group			
S	Si	HC	Rmn	S	Si	HC	Rmn
A	42	62	48*	a	39	70	68
B	49	53*	48*	b	53	62	56
C	44	62	43*	c	51	59	54
D	55*	62	37*	d	52	57*	51
E	49	70	43*	e	48	64	68
F	46	50*	45*	f	46	79	59
G	47	57*	56	g	41	55*	54
H	43	43*	51	h	46	36*	54
I	54*	62	43*	i	47	57*	61
J	49	73	37*	j	37	68	65
K	43	77	51	k	47	62	48*
L	60*	66	34*	l	47	59	54
M	46	57*	54	m	43	66	48*
N	42	55*	43*	n	58*	77	56
O	55*	66	40*	o	61*	62	56
P	60*	82	48*	p	43	62	56
Q	48	44*	48*	q	45	39*	65
R	69*	48*	34*	r	46	66	51
S	47	66	40*	s	40	68	65
T	51	46*	45*	t	34	75	62
U	49	50*	43*	u	66*	59	40*
V	56*	57*	45*	v	49	75	62
W	68*	50*	34*	w	54*	91	54
X	65*	64	32*	x	38	62	73
Y	66*	53*	43*	y	52	82	56

-Prediction of return to prison.

*Prediction of rehabilitation.

below. Again false negatives were the predictive problem, as twelve of the rehabilitated group scored in the reconviction direction. Thirteen were below 58.

When the results for these two scales are combined, a pattern emerges in which sixteen of the reconvicted group score below 54 on Social Introversion and above 58 on Habitual Criminal. Only six subjects in the rehabilitated group have this pattern. Furthermore, four subjects in the rehabilitated group have a pattern of low HC and high Si, a pattern that never occurs in the reconvicted group. The remaining members of each group have "mixed" patterns where one scale suggests rehabilitation and the other reconviction. Thus, for twenty of twenty-six individuals, the simultaneous operation of Si and HC is a strong and accurate indication of recidivism-rehabilitation potential.

The Rmn results indicate a high level of ex post facto predictive power for a single scale. Twenty-two reconvicted subjects scored above the 50 cut-off point, and three were below. Twenty-one of the rehabilitated group scored below 50, and only four scored above. Thus, for this particular group of subjects and this particular set of data, there are three false positives where rehabilitation is predicted but does not occur, and there are four false negatives where reconviction is predicted but rehabilitation occurs. Table 8 summarizes these results.

By utilizing all of these results together, an

actuarial system was created whereby all three scales could be considered simultaneously in their relative importance. Each scale whose value exceeded a cut-off point in the direction of recidivism was accorded a value of one. A zero was assigned for each value in the direction of rehabilitation. When these values were totaled for each subject, a "recidivism-rehabilitation index" or the "Rmn Index" was obtained.

The results are dramatized in Table 11 so that fourteen men in the reconvicted group are shown as clearly attaining Rmn Index values of 3. Only one person in the rehabilitated group scored in the 3 category. Four Rmn Index values of 0 occurred, all in the rehabilitated group. The value of 1 proved to be a strong rehabilitation category with twelve subjects scoring here in the rehabilitated group but only one in the reconvicted group. The value of 2 proved to be indecisive with ten reconvicted and eight rehabilitated subjects falling within this range. This result initially created the impression that the actuarial method on this basis would be of benefit only in the extreme categories or for Rmn Indexes of 0, 1, and 3. Still, operating from the actuarial vantage point, it was necessary to consider other possibilities.

Anxiety and Repression Difference.--For each person with an Rmn Index of 2, the arithmetical difference between A and R was computed, yielding a fairly distinctive

TABLE 11

RECIDIVISM-REHABILITATION INDEX VALUES FOR REHABILITATED AND RECONVICTED GROUPS

	0	1	2	3
Rehabilitated Group	4	12	8	(1)
Reconvicted Group	0	[1]	10	14

□ False Positive

○ False Negative

△ Indecisive Range

pattern peculiar to each group. Of the ten reconvicted subjects with Rmn Index values of 2, eight had differences of 8 or less between A and R. Most of these were close enough to be regarded as even or almost even. Of the eight rehabilitated individuals, only two had small differences and six had differences in excess of 8 ranging from 11 to 24.

A survey of all fifty subjects concerning this relationship shows it to be characteristic of each group with one added feature: the reconvicted group has three subjects in it with differences which exceed 24. This infrequent but consistent pattern does not appear in the rehabilitated group. Thus, there are a total of seventeen rehabilitated individuals who have differences in the 9 to 24 range, and

eight with differences ranging from 1 to 8. In the reconvicted group, sixteen individuals score in the 1 to 8 or 25+ range, but nine score in the 9 to 24 range.

Of the eighteen persons who have Rmn Indexes of 2, only three failed to behave according to the predicted direction within this actuarial system. Table 12 summarizes these results. Two other subjects, the rehabilitated one with an Rmn Index of 3 and the reconvicted person with an Rmn Index of 1, defy the entire system, including the Anxiety and Repression difference. Excluding these five persons, this system encompasses forty-five individuals in the predicted direction with more "checks and balances" than the Rmn scale which was correct forty-three out of fifty times but was developed on a small group of subjects and has no cross validation. Furthermore, the A and R dimensions have well developed descriptive power based on a great deal of research. It was impossible to develop an actuarial system that could utilize A and R differences as predictors for all subjects; only when the other indicators were ambiguous did A and R prove to be effective.

Parole Violator Scale.--A distinction, varying in precision, can be made between returning to prison with a reconviction or by parole revocation. This distinction appears necessary to report the results of the Pav scale with more complete accuracy. Of the nine paroled subjects in the reconvicted group, four are designated as being

TABLE 12

T VALUES OF ANXIETY AND REPRESSION WITH DIFFERENCES FOR EIGHTEEN SUBJECTS WITH Rmn INDEX VALUES OF TWO

S	Rmn Index Sources			A	R	Diff.
A	Si	HC		38	61	23
C	Si	HC		60	49	11
E	Si	HC		56	43	13
G	Si		Rmn	40	53	13
H	Si		Rmn	41	45	4
J	Si	HC		44	68	24
M	Si		Rmn	42	43	1
S	Si	HC		40	57	17
d	Si		Rmn	50	51	1
g	Si		Rmn	49	45	4
h	Si		Rmn	44	43	1
i	Si		Rmn	45	45	2
k	Si	HC		45	53	8
m	Si	HC		40	47	7
n		HC	Rmn	71	51	20
o		HC	Rmn	54	53	1
q	Si		Rmn	44	49	5
w		HC	Rmn	77	49	28

returned specifically for parole revocation. While the N is too small to determine much from a statistical standpoint, the practical distinction appears relevant to the operation of the scale.

Table 13 lists the fifteen subjects who were paroled, their Parole Violator scores, and the outcome. Panton (1962b) designated a T value of 58 as the cut-off point for North Carolina inmates. Utilizing the same score for this sample, five of six rehabilitated subjects are identified correctly, but only three of the nine reconvicted subjects were identified. If the category of parole revocation because of parole violation is followed strictly and the reconvictions for felonies are excluded, then two of the four individuals with revocations were identified correctly with a cut-off point of 55 and above. Within this frame of reference, the results are seven correct identifications out of ten.

Escape.--With reference to the criterion of recidivism-rehabilitation, the two groups produced similar test results. The predictive problem seemed to be a false negative one with the high scores in the rehabilitated group indicating a return to prison which did not occur. From this vantage point the Ec results seemed unrelated to the basic problem.

A very different result was obtained when the Ec scale scores were paired with post-institutional adjustment

TABLE 13

PAROLE VIOLATOR SCORES AND PAROLE OUTCOME FOR SUBJECTS PAROLED IN REHABILITATED AND RECONVICTED GROUPS

Rehabilitated Group			Reconvicted Group		
S	Pav	F.B.I. Entries	S	Pav	Second Felony
C	65	-	n	83	#
V	52	-	y	83	4
F	52	-	k	58	2
D	49	/	u	55	1
H	49	-	m	55	#
T	49	////	j	52	#
			i	46	4
			b	43	5
			p	40	#

Key

1 = Burglary, grand larceny
2 = Illegal use of automobiles
3 = Use of force against persons, robbery, kidnaping
4 = Forgery, obtaining money by false pretenses
5 = Murder
6 = Narcotics possession
# = Parole revoked

for both groups. The results of this process are shown in Table 14. The Ec scale scores are in rank order. Utilizing a basic cut-off point of 50, all but one of the reconvicted group were placed in a category which predicted "further involvement with the law." Subject q is the only member of the reconvicted group scoring below 50. Conversely, eight members of the rehabilitated group scored 50 or below on Ec, and only one of these, Subject Q, had an F.B.I. entry, a misdemeanor. Imposing again another cut-off point of 59 and below, the rehabilitated group had no individuals with F.B.I. entries for felony type offenses in this range. Subject S had two traffic violation entries. All felony type investigation entries and out-of-state entries are paired with Ec scores of 60 and above. Five of the fifteen subjects who scored in the 60+ range have no entries. It may also be noteworthy that subjects with as many as four or more F.B.I. entries all scored 67 and above.

The cut-off point of 50 appears to be very relevant to success on parole. All nine subjects in the reconviction group who were paroled scored 53 or above; two of the six subjects in the rehabilitation group scored above 53 while the other four scored 50 or below. Within this framework the results are thirteen of fifteen correct predictions of parole outcome.

Ego strength.--The correlation of -.15 with the

TABLE 14

ESCAPE SCALE SCORES OF REHABILITATED AND RECONVICTED GROUPS PAIRED WITH POST-INSTITUTIONAL ADJUSTMENT CRITERIA

Rehabilitated Group			Reconvicted Group			
S	Ec	F.B.I. Entries	S	Ec	First Felony	Second Felony
W	83	/	w	90	1	1
O	83	/	y*	87	3	4
P	80	//////	n*	80	3	#
B	80	//////	c	73	1	1
Y	70	-	e	70	1	2
U	70	/////	f	70	1	1
L	67	-	h	70	2	2
N	67	-	x	67	2	2
T*	67	////	m*	67	3	#
M	63	//	g	67	3	1
D*	63	/	d	67	1	6
A	60	/	r	63	1	1
E	60	-	j*	60	1	#
I	60	/	b*	60	4	5
X	60	-	a	57	2	2
G	57	-	i*	57	1	4
S	53	//	o	57	4	4
C*	50	-	p*	57	2	#
F*	50	-	t	57	2	2
K	50	-	k*	53	2	2
H*	50	-	l	53	4	1
V*	43	-	s	53	1	2
Q	43	/	u*	53	1	1
J	43	-	v	53	1	1
R	40	-	q	47	2	2

Key

1 = Burglary, grand larceny
2 = Illegal use of automobiles
3 = Use of force against persons, robbery, kidnaping
4 = Forgery, obtaining money by false pretenses
5 = Murder
6 = Narcotics possession
* = Paroled
# = Parole revoked

criterion indicated insignificant predictive power for the Ego strength scale. A correlation of -.82 with Anxiety indicated a high level of interchangeability for the two scales. The scale was included in the matrix because of its established value in measuring potential for change and actual personality changes in relation to psychotherapy (Dahlstrom and Welsh, 1960). Furthermore, the mid-range of 39 to 50, raw scores, implies a well modulated form of emotional control.

The Recidivism-Rehabilitation Inventory.--This Inventory results from combining all of the scales in the correlation matrix and the validity scales into a single, actuary-type unit. The Psychopathic Deviate and Hypomania scales are included because of their long standing, empirically derived relationship to behavior and character disorder (Dahlstrom and Welsh, 1960). The Inventory is patterned after the original MMPI profile sheet and the Prison Classification Inventory as developed by Panton (1962b).

Figure 1 illustrates the kind of profile which results when scores of the strong reconviction pattern are put in graphic form. A significant feature of the graph is the "reconviction peak" which is produced by a Social Introversion score below 54, a Habitual Criminal score above 58, a very high Recidivism-Rehabilitation score, and the low Anxiety score in the first quadrant which can be

RECIDIVISM - REHABILITATION INVENTORY (RRI)
from
THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)

NAME a

NUMBER _____ RACE Cauc.

AGE 25 EDUCATION _____

FSIQ 101 LIQ 104 NLIQ 97

FELONY Type 2

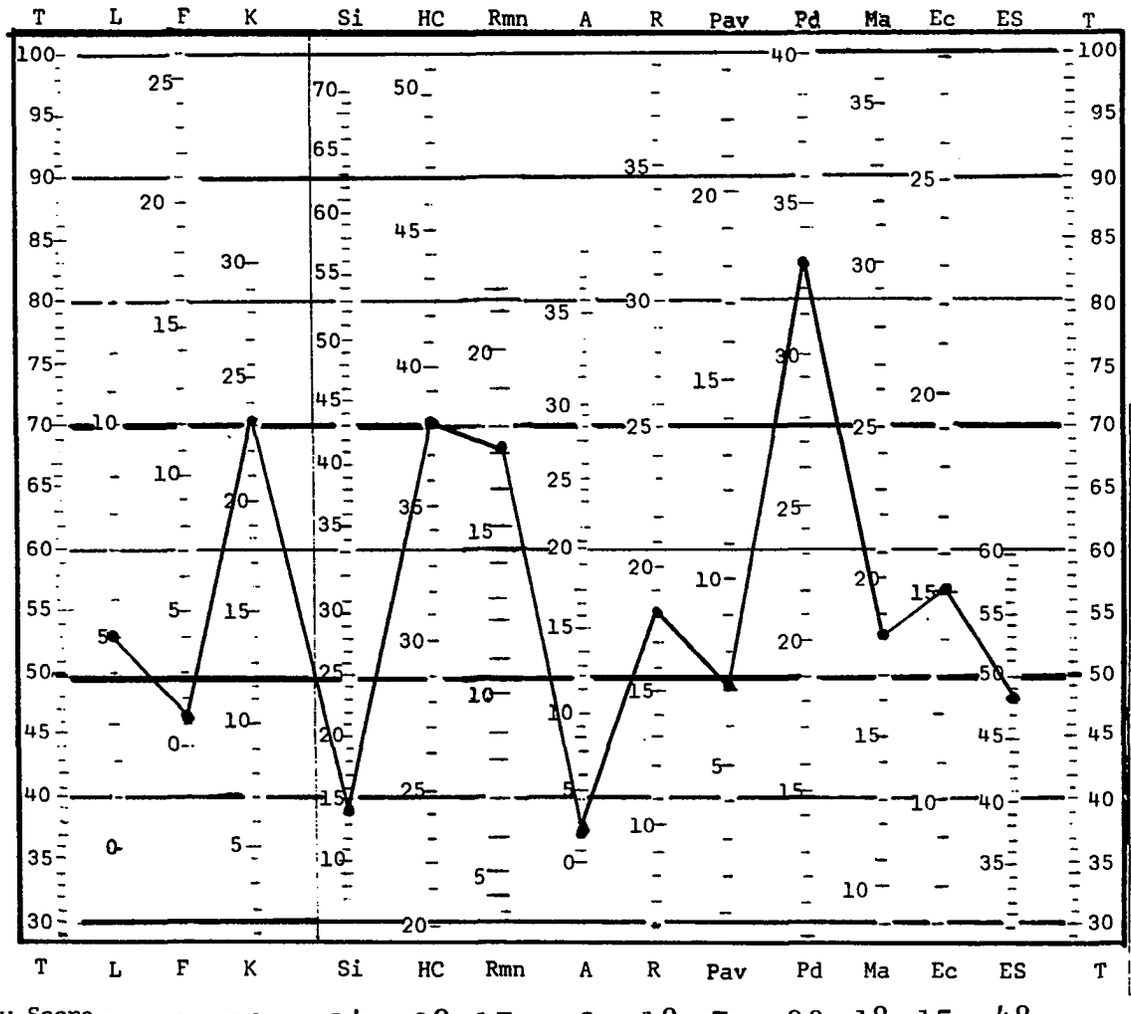
FIRST OFFENDER _____ PAV _____

RECONVICTION(S) Type 2

INFRACTIONS _____

ESCAPES _____

DATE _____



	T	L	F	K	Si	HC	Rmn	A	R	Pav	Pd	Ma	Ec	ES	T
Raw Score		5	1	23	14	38	17	2	18	7	33	18	15	48	



NOTES

Fig. 1. Strong reconviction pattern based on Rmn Index value of 3

RECIDIVISM - REHABILITATION INVENTORY (RRI)
from
THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)

NAME V

NUMBER _____ RACE Mex.

AGE 18 EDUCATION _____

FSIQ 88 LIQ 91 NLIQ 82

FELONY Type 1

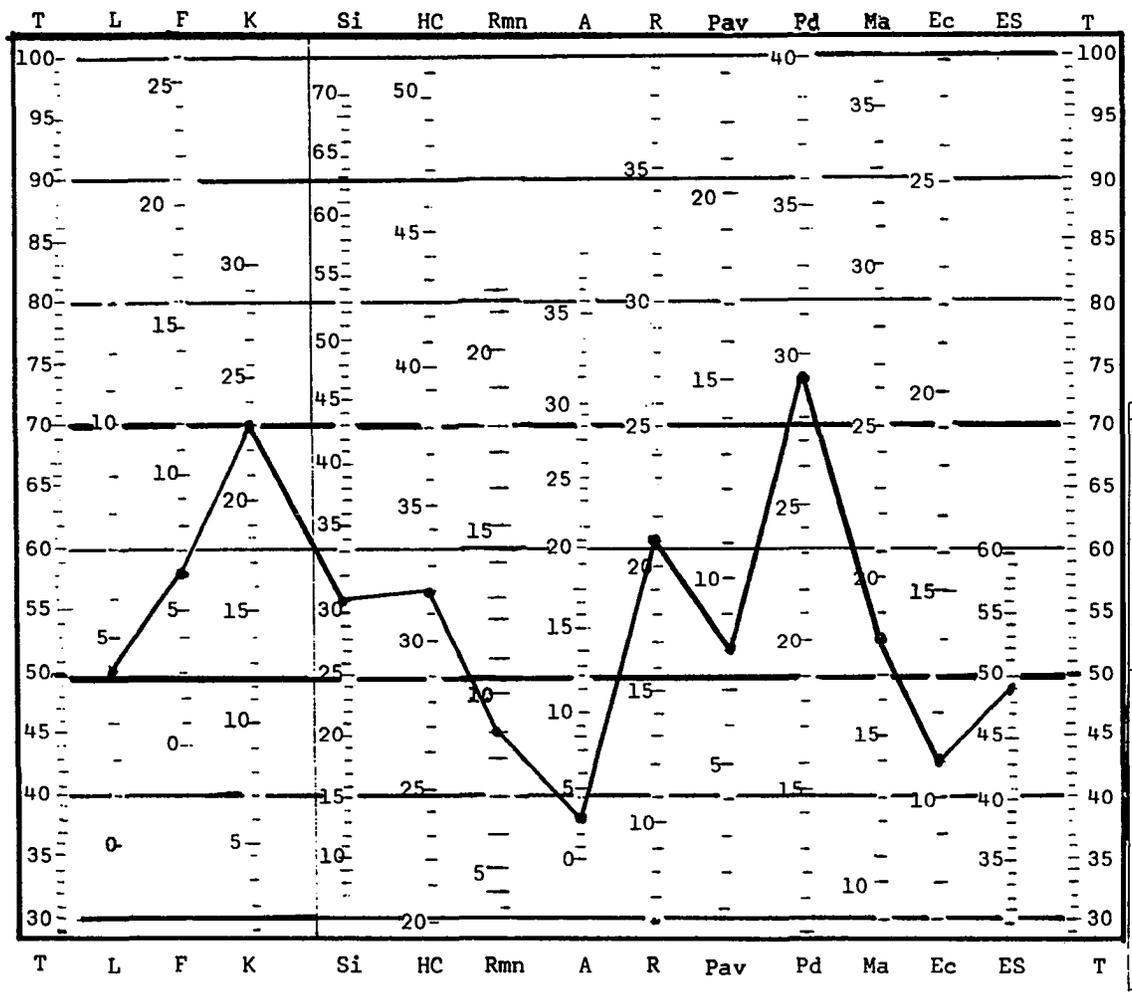
FIRST OFFENDER _____ PAV _____

RECONVICTION(S) _____

INFRACTIONS _____

ESCAPES _____

DATE _____



	T	L	F	K	Si	HC	Rmn	A	R	Pav	Pd	Ma	Ec	ES	T
Raw Score		4	6	23	31	32	9	3	21	8	29	18	11	49	

NOTES

Fig. 2. Strong rehabilitation pattern based on Rmn Index value of 0

RECIDIVISM - REHABILITATION INVENTORY (RRI)
from
THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)

NAME d

NUMBER _____ RACE Cauc.

AGE 22 EDUCATION _____

FSIQ 117 LIQ 128 NLIQ 104

FELONY Type 1

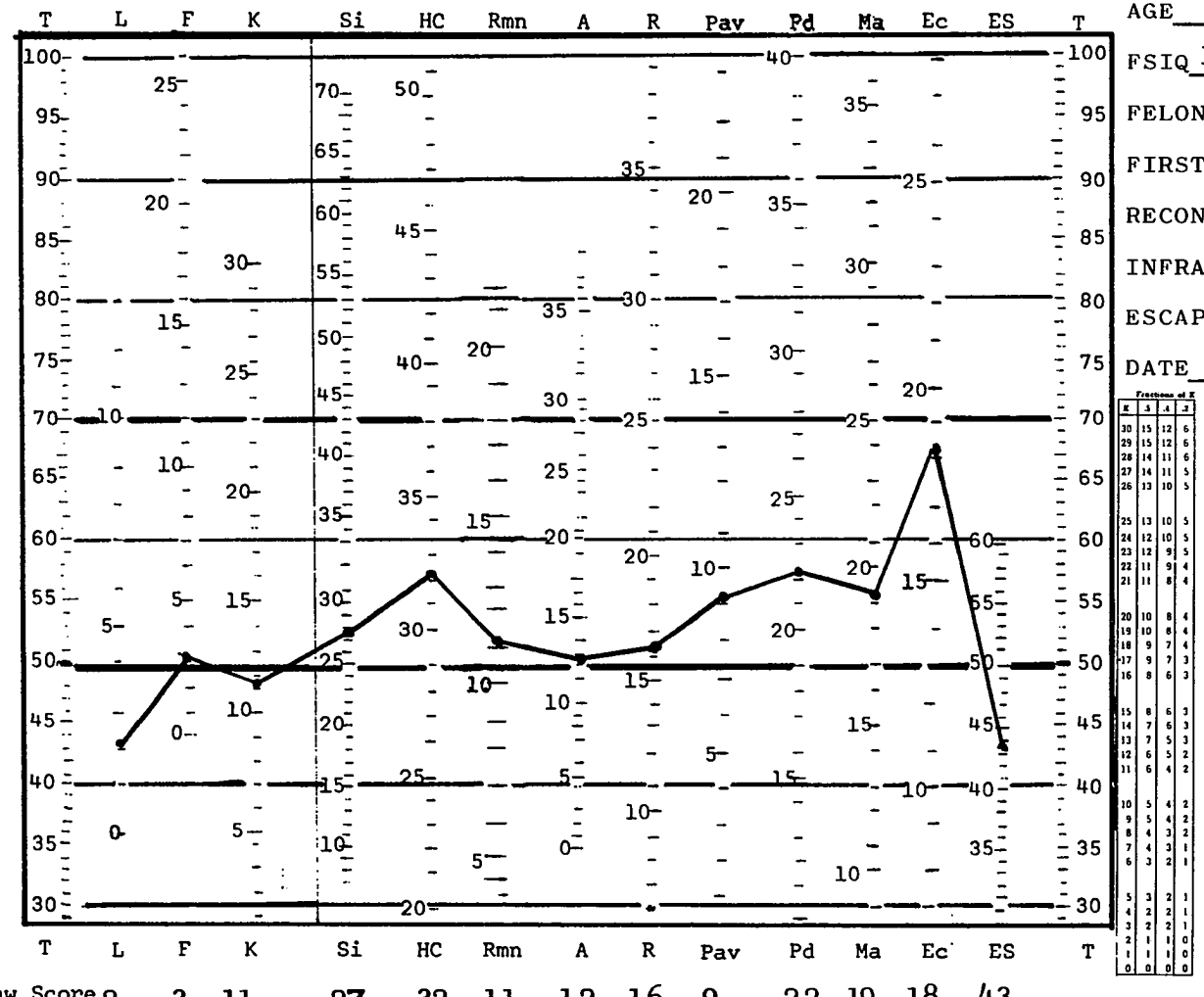
FIRST OFFENDER _____ PAV _____

RECONVICTION(S) Type 6

INFRACTIONS _____

ESCAPES _____

DATE _____



	T	L	F	K	Si	HC	Rmn	A	R	Pav	Pd	Ma	Ec	ES	T
Raw Score		2	3	11	27	32	11	12	16	9	22	19	18	43	

NOTES

Fig. 3. Reconviction pattern based on Rmn Index value of 2 with Anxiety and Repression difference of 1

RECIDIVISM - REHABILITATION INVENTORY (RRI)
from
THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)

NAME C

NUMBER _____ RACE Cauc.

AGE 18 EDUCATION _____

FSIQ 104 LIQ 100 NLIQ 118

FELONY Type 3

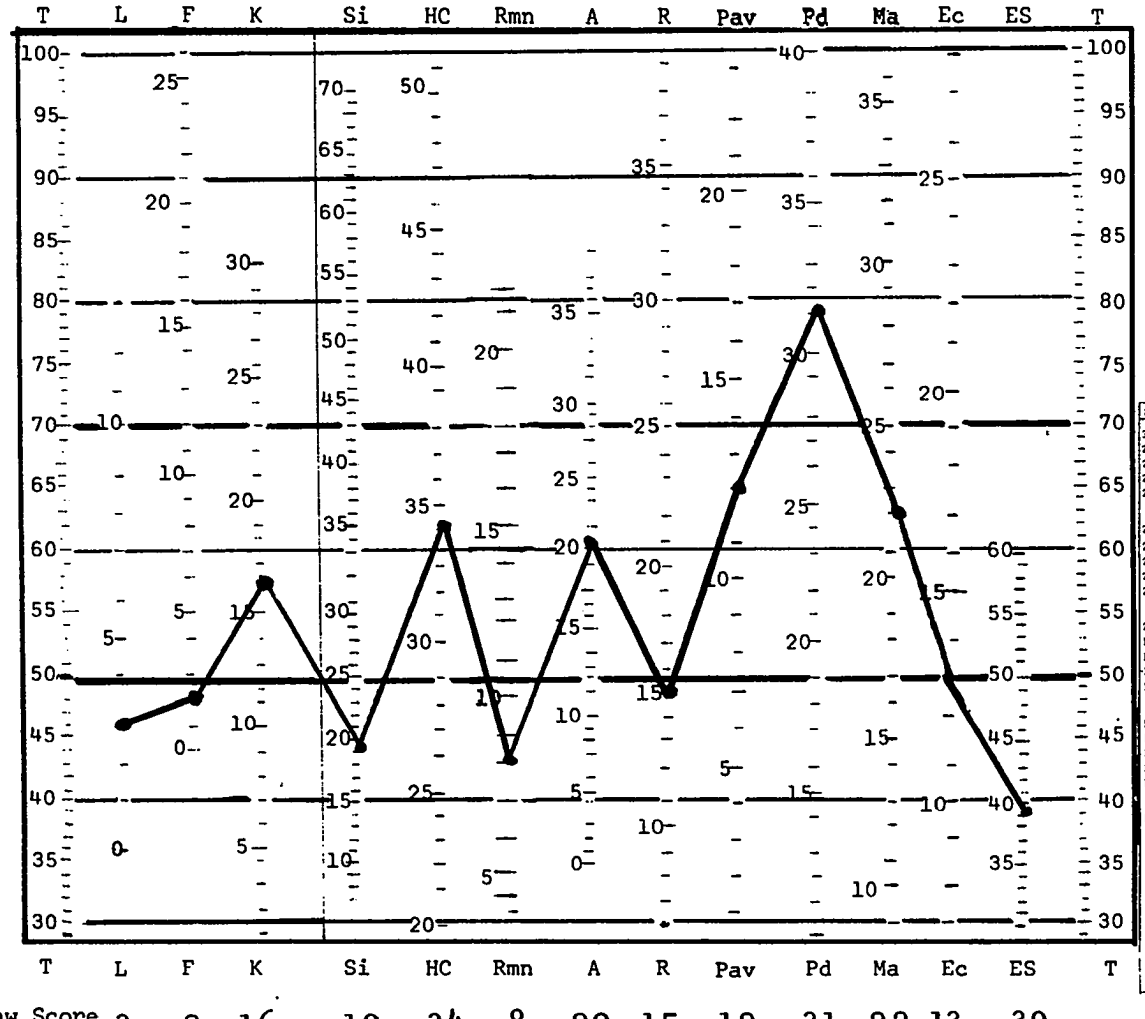
FIRST OFFENDER _____ PAV _____

RECONVICTION(S) _____

INFRACTIONS _____

ESCAPES _____

DATE _____



	T	L	F	K	Si	HC	Rmn	A	R	Pav	Pd	Ma	Ec	ES	T
Raw Score		3	2	16	19	34	8	20	15	12	31	22	13	39	

NOTES

Fig. 4. Rehabilitation pattern based on Rmn Index value of 2 with Anxiety and Repression difference of 11

associated with character disorder. In addition, the Escape score of 57 confirms the reconviction pattern.

Figure 2 portrays the strong rehabilitation pattern. In this instance, a Social Introversion score above 54, Habitual Criminal score below 58, and Recidivism-Rehabilitation score below 50 produce a descending line different from the "reconviction peak" in Figure 1. Anxiety is in the lowest quadrant, but Repression is in the third with a discrepancy between them of 23 points. The Escape score is only 43, and the Ego strength 49, within the safer range.

Figure 3 is the profile of a subject whose test behavior resulted in a mixed pattern. Social Introversion is 52, Habitual Criminal is 57, and Recidivism-Rehabilitation is 51. This yields an Rmn index of 2 with all the scores very close to the cut-off points. The Anxiety and Repression discrepancy is 1. Being less than 9, this score tips the scales in the reconviction direction.

Figure 4 also conveys a profile which yields an Rmn Index of 2. The Anxiety and Repression discrepancy of 11 points toward rehabilitation in this instance. Two other factors, an Escape score of 50 and an Ego strength value of 39, are also in accord with the rehabilitation picture. It is of interest to note that the Psychopathic Deviate score of 79 in and of itself was pointing in a

direction counter to the final results.

A comparison of the four subjects in terms of age, I.Q., and type of felony illustrates the considerable variety of individual patterns that occurred on these variables.

CHAPTER V

DISCUSSION

The Rmn scale achieved distinction among other variables as the best single predictor of the reconviction-rehabilitation dimension. The scale has no cross validity and is untested by experience. Clark (1948) found that the Recidivism scale was stable at the .05 level through cross validation for AWOL problems in the Army, but Freeman and Mason (1952) did not find it statistically significant for predicting recidivism among Washington inmates. They were also unable to derive keys from their sample that would serve the purpose. Previous experience therefore demands a forecast of difficulties in efforts to achieve cross validation for the Rmn scale.

Representativeness of sample was discussed in Chapter II with reference to its vital importance for this kind of study. The two groups have all appearances of being very representative of Vocational Rehabilitation clients throughout the Reformatory project. Psychologically, representativeness of sample must be limited in terms of the MMPI validity scales as pointed out in

Chapter III. The groups were well equated for opportunity to acquire a trade and subsequent employment. The explication of demographic variables and the extent to which they were controlled is less than adequate. The results may achieve limited generalizations to those inmates who have little opportunity for training and employment or to those who have considerably more. Glaser (1964) found that variables such as visits received while incarcerated, letters written and received, contact with relatives, a specific place to go after release, and prospects for financial assistance from family sources were predictive of success.

Content Validity.--What do the twenty-two items which constitute the Rmn scale measure, and what do they suggest in descriptive language about these two groups? Social Introversion and Habitual Criminal, the "foster parent" scales, give premonitions. Statistical significance beyond the .01 level, however, indicates that Rmn has measurement capabilities and meanings that are specific to it alone.

The proposed answers to these questions will be derived from some of the surface indications of the items, from theoretical sources, and from clinical experience with prison inmates. An effort will be made to describe a psychological dimension of the reconvicted group as a group from the implications of their response tendencies

to the scale items. The characteristics of the rehabilitated group will, of course, be inferred in each statement, and an effort to highlight those aspects of that group which contributed to their ability to stay out of prison will conclude the description. Somewhat arbitrary categories were selected as organizational nuclei or focal points to study the scale.

The first cluster highlights problems in relation to authority, specifically open and direct conflict with authority, resistance to the conventional, and resistance to society's educational values.

56. As a youngster I was suspended from school one or more times for cutting up. T

118. In school I was sometimes sent to the principal for cutting up. T

Cluster two concerns realistic self appraisal, an accurate view of the ego and its achievements, actual or potential.

102. My hardest battles are with myself. F

244. My way of doing things is apt to be misunderstood by others. F

278. I have often felt that strangers were looking at me critically. T

400. If given the chance I could do some things that would be of great benefit to the world. T

415. If given the chance I would make a good leader of people. T

A third cluster concerns interpersonal and social

comfort-discomfort as well as accurate perception of interpersonal relationships and situations.

57. I am a good mixer. T

304. In school I found it very hard to talk before the class. F

469. I have often found people jealous of my good ideas, just because they had not thought of them first. F

521. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well. T

564. I am apt to pass up something I want to do when others feel that it isn't worth doing. F

Items 244 and 278 can also be viewed as part of this dimension.

A fourth cluster involves childhood, dependency, and early deprivation.

143. When I was a child, I belonged to a crowd or gang that tried to stick together through thick and thin. T

216. There is very little love and companionship in my family as compared to other homes. T

398. I often think, "I wish I were a child again." T

Three items involve direct concern with sexual adjustment and the masculine role as defined by the culture.

208. I like to flirt. T

231. I like to talk about sex. T

485. When a man is with a woman he is usually thinking about things related to her sex. F

Body image and impulse-thought control are employed

here as a wide and tentative category for two items.

155. I am neither gaining nor losing weight. F

359. Sometimes some unimportant thought will run through my mind and bother me for days. F

The last cluster is defined as denial of difficulty through presentation of "pseudo-values."

124. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it. F

316. I think nearly anyone would tell a lie to keep out of trouble. F

Items 102, 304, and 359 can also be included in this cluster under certain circumstances.

Each cluster was considered in the framework of autonomy and heteronomy as developed and discussed by Ausubel (1952), Angyal (1965), and Berne (1964).

Beginning with childhood, dependency, and deprivation, the data suggest that the reconvicted group perceived and reported their early family life as lacking in warmth and interpersonal affection. They remember it as "cool" or "cold" and "empty" compared to their perception of other people's families. This is related to a rather frequent fantasy: "I wish I were a child again." The lack of satisfaction in the family setting is also related to a search for other sources of gratification. They claim membership in a gang, as a child, "which tried to stick together through thick and thin."

Somewhere between the first grade and the Reformatory, usually in junior high school, serious conflicts with authority emerged as the reconvicted subjects resisted society's demands for conformity through aggressive, overt forms of behavior that came to the direct and immediate attention of school authorities. Many carried this pattern far enough to be expelled from school. The typical learning process as they experienced it, or, perhaps, refused to experience it, offered little, if any, gratification. Even when it was gratifying, other matters took precedence, such as the search for a "family" through the gang. The sources of behavior control were often experientially externalized so that they made poor connections or none at all between what they had done and what was happening to them. Through various manipulative strategies, they managed to get others to control them, even to reject them. These efforts to get others involved with them were often "successful" but not for a self-enhancing outcome. Their sense of autonomy seemed either ultimate <u>within</u> or ultimate <u>without</u>, and a mid-range of compatibility with persons of authority seemed impossible to achieve, if it could even be imagined.

An integral part of similar difficulties is a tendency to misperceive or purposely misconstrue certain interpersonal situations and their roles in them. The individuals in this group seem to perceive other people

as a potential "audience" which exists primarily for their use. This strategy provides them distance from close interpersonal involvement with others and serves the purposes of avoiding real intimacy and potential psychic injury. These individuals are prone to dominate a situation, arousing adverse reactions from others.

Furthermore, members of the reconvicted group deny that their way of doing things is apt to be misunderstood by others. Very often, in fact, it is misunderstood. At the same time, the members of the reconvicted group seem overly eager to perceive others as being reflexively critical of them and prone to judge them, to evaluate them negatively, to criticize and to punish them for things which, from their vantage point, are quite trivial.

The reconvicted group's ability to appriase themselves and their achievements, potential and actual, is fragmentary and ineffectual. Their views of their potential worth appear to be inflated, and they affirm the tendency to believe in "chance" as the source of their inability to achieve that which they want or feel they should achieve. Some view their "good ideas" as being of little worth or non-existent, while others tend to greatly overestimate the value which others might place on their "good ideas." They deny that their "hardest battles are with themselves." This denial is suggestive of a number of trends toward unrealistic self appraisal and the

tendency to externalize inner conflicts and difficulties.

The reconvicted group appeared to be under pressure concerning the masculine role. They have something to prove about themselves in terms of personal adequacy and manhood. From their vantage point, women serve as a vehicle for that proof rather than as a mutual partner in a dialogue-type relationship. They need to be very open, frank, and "Don Juanish" at the verbal level (e.g., discussing sex), but they seemed under pressure to deny the possession of any femininity or interest in affairs regarded as "feminine," so much so that one wonders what may be present behind this front. They evidently need to be "hypermasculine" under most conditions.

Two items are interpreted as test behavior reversals of the actual value system. It is assumed that each represents a denial of the individual's actual values through presentation of a facade. These "pseudo values" are a culturally derived test response, and they are not integrated self-constructs if their post-institutional behavior can serve as a gauge. These items are No. 124: "Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it," scorable False, and No. 316: "I think nearly anyone would tell a lie to keep out of trouble," scorable False. The test behavior of the group here suggests that an actual and important aspect of themselves, their actual values about

certain moral issues in our society at the behavioral level, are denied and by inference are not experienced as a part of the self. Members of the rehabilitated group appear to appraise themselves and others more clearly, being less projective on these items. Another possibility for explaining these responses is a tendency to consciously "fake virtue," and this also can be a factor in recidivism. If this is the case, however, it seems significant that the faking should occur on these particular items.

One item in particular suggest that the men can be very rigid in situations that require role-taking and conflict of wills. They insist that their way is the "only way," or the "best way." The item may be measuring something similar to the common observations that inmates apparently experience few alternatives in solving problems. In the absence of experiential alternatives, they seek to impose their "single-final" solution on the conflict situation.

Item No. 155 is ambiguous in meaning as far as the author is concerned. "I am neither gaining nor losing weight," was scored False by a majority of the reconvicted group. This might suggest some disturbance or difficulty in the area of body image. It might suggest an interpretation in the direction of excessive concern about orality, the need for routine and security, very regular meals, etc.

It might also be a function of test response tendencies, such as a self-defeating tendency to pass over difficult questions too glibly. The question is worded in an unusual way.

In summary, the implied excesses in the direction of aggressive, extroverted, impulsive, and exhibitionistic tendencies affirmed in these items are familiar and synonymous with many previously observed characteristics of youthful offenders with a propensity toward recidivism (Sturup, 1964; Mannheim, 1965). The extent to which the items reflect conflict in areas known to play important roles in recidivism in previous works lends strong support to the content validity for the scale. The fact that values, early history, ego failures, sexual adjustment, and rigidity in role taking and problem solving are all included in the scale's structure indicates a fairly well-rounded and balanced approach to the measurement of the problem.

The issue may be raised as to whether the rehabilitated group are "full polar opposites" of the reconvicted group. If this is the case, it suggests that extreme overcontrol is a highly prized cultural value as well as a high correlate of rehabilitation. Statistically, this is a matter of indifference; practically, however, it could have discouraging implications. There are several indications that the rehabilitated group does not swing

to this extreme. Rather, they actually seem to have strength in the direction of more accurate self-appraisal, less need to "grind axes" and to prove things at expensive personal prices, and more tolerance for give and take in interpersonal relationships. They externalize their problems less frequently, and they rise above the wounds of the past.

Social Introversion.--The t value of 2.23 revealed mean differences between the two groups which were significant beyond the .05 level. The first implication of this result is that the recidivists are extroverted and the rehabilitated subjects introverted as defined by the Si scale. The results are oversimplified in that framework, though, because of the fifteen members of the rehabilitated group who also scored below 54. Furthermore, when the scale is divided by quartiles, more subtle implications can be inferred. The five reconvicted subjects who scored 40 and below have no counterpart in the rehabilitated group. Also, 68 is the highest score in either group.

The results are quite harmonious with behavior ratings on high and low Si scorers as reported by Dahlstrom and Welsh (1960). The low scoring extroverts were seen as oral, self-indulgent people, unable to delay gratifications, and prone to act with insufficient thought and deliberation. Seen as quickly counteractive when frustrated, they had strong tendencies to arouse resentment and hostility in

others. They were also seen as potentially guileful and deceitful. The high scorers, on the other hand, were more controlled and inhibited. They tended to be compliant, submissive, and overly accepting of authority. They were conscientious about responsibility, respectful of others, placing a high value on productive achievement for its own sake. They tried to get along with the world as it is. They showed some tendencies toward neurotic overconstriction and stereotypical ways of solving problems.

These descriptions make it clear that the Si dimension can be closely related to recidivism, but it is also evident that there must be more to recidivism in terms of personality than this one dimension. These findings are strikingly similar to those of other researchers who have studied the relationship between recidivism and this dimension. Eysenck (1964) has hypothesized that extroverts are more difficult to condition than introverts and therefore more likely to become recidivists. Franks (1956) has concluded that there are two kinds of recidivists: introverted ones in an overwhelming antisocial environment and extroverted psychopathic types who are unwilling or unable to live by the prevailing norms.

In view of the general trend for recidivists to be extroverted, a logical basis is apparent for the one point credit toward recidivism prediction that is assigned Si scores below 54 in the Rmn Index.

Habitual Criminal.--The HC results are remarkable for their almost identical similarity to Panton's original results in North Carolina. The scale achieved 62.9 per cent identification for the 20 to 29 age group with one prior sentence in his study (Panton, 1962a). Utilizing the same cut-off point of 58, the scale achieved 66 per cent identification on the present sample.

The name of the HC scale is very definitive about its meaning, and the many Psychopathic Deviate items in its composition also make its implications well known. The differences between the rehabilitated group and the reconvicted group on HC items as well as differences between these groups and the original sample are instructive. The Reformatory sample tended to disagree with the older men on those items which thoroughly projected blame for failure, dissatisfaction, and unhappiness to the environment and other people. The younger group saw themselves as more hopeful, as better adjusted in relation to women and children, and as having more control over their fate than the older group. Appendix C indicates the areas of agreement and disagreement between the older and the younger groups.

Although there were six items on the HC scale on which the reconvicted group tended to respond the same as the habitual criminals, the rehabilitated group responded differently. These six items included the two items

concerning school, the item about gang membership, the gaining and losing weight item, family relationships as lacking in warmth, and the ability to be interested in feminine affairs in the company of women. These items involve every basic aspect of development; home, school, social group relations, relationships with women, and bodily development. These data suggest that the habitual criminals start out with unfavorable conditions for development and the cycle develops toward more and more difficulty. Their behavior indicates a mode of adjustment that is characterized by striking back so that others must seek ways of protecting themselves from the loss of property or even life.

These data offer some information concerning the psychology of the youthful recidivist at the crossroad between the first and second sentence. Prison was ineffective as a deterrent to further criminal activity and for the protection of society. Early deprivation of emotional needs, failure to develop internal controls, and a whole line of developmental failures, interpersonal, school achievement, and sexual maturation, appear to be basic causes and results of recidivism on the basis of these data. Prisons are typically rather poorly equipped to aid in fostering these kinds of developments.

Sturup has asserted on bases similar to these, specifically clinical experience with recidivists, that

classical prison experience not only fails to bring about positive change in these individuals but also actually calcifies a basic antisocial position. He says:

> ...Traditional punishment has been proved to be without value in these cases. Likewise, a sentence stated to be for treatment gives such an inmate an easy opportunity to demonstrate that the sentencing and treating authorities, who believed that he thereby could be changed, are just as foolish as all other authorities he has met before....By subsequently committing a new crime he proves, in his own view, that the authorities are wrong (Sturup, 1964, pp. 3, 4).

When the deprivation, antisocial values, and insufficient character of the HC dimension are joined with the extroversion, aggression, and exhibitionism of the Si dimension, a strong reconviction pattern is the result. This pattern was true for sixteen of twenty-two subjects. When these factors are mixed in a less extreme fashion, other contributors to recidivism must be considered.

Anxiety and Repression.--These scales have emerged from factor analytic studies of the MMPI as Factor I and Factor II (Welsh, 1956; Kassebaum, Couch, and Slater, 1959). These studies have consistently shown the scales to be orthogonal. Kassebaum, Couch, and Slater named the first factor "Ego Weakness vs. Ego Strength" and the second factor "Introversion-Extroversion." They felt that the second factor measured inhibition and constriction more than denial and repression as originally stated by Welsh. Panton (1962b) adapted A and R specifically for prison use and included it in the Prison Classification

Inventory.

On the basis of A and R, the entire sample may be described as predominantly in the direction of behavior and character disorder with low levels of experienced anxiety. There is a marked absence of psychosis and anxiety neuroses. For the most part, the two groups scored in the lower two quadrants on both scales. The results indicate that either scale or both conjointly are not direct correlates of recidivism and rehabilitation. The correlation of R (.24) with the criterion suggested an important relationship, one which resembles that of Si and the criterion (.29).

The suspected importance of the subtle contribution of each personality dimension to the final behavioral outcome led to computation of the A and R difference. The fact that this numerical difference yielded decisive patterns for fifteen of the eighteen Rmn Index values of 2 is more easily observed than explained. The small N can easily demonstrate that the apparent high level of accuracy may be a function of chance for this sample. Still, there are some explanations which have logical bases.

From the beginning of the factor scales, the lower A, lower R combination denoted character and behavior disorders (Welsh, 1956). The reconvicted group, which contains the preponderance of the small differences, generally scored below 54 or 52 on both scales. An extreme contrast

demonstrates the importance of this fact. The meaning of a small A and R discrepancy when A and R are in the highest quadrant would be very different, signifying a high anxiety state. Panton (1962b) states that A and R scores in the average T value ranges are associated with reactive depression. On this basis, the reconvicted individuals with small A and R differences were tested in the depressive phase of a total cycle composed of quick, short range gratifications and high emotional tone,--getting caught, chagrin, guilt, experience of punishment,--and reactive depression.

The intercorrelations of Anxiety, Repression, Social Introversion, Habitual Criminal and the criterion give suggestions as to why the system works. In Table 6 it was reported that Si and A correlate .59; Si and R, .25; HC and A, .36; HC and R, -.07; A and criterion, .01; R and the criterion, .24. This suggests that A and Si are the two scales which most highly resemble each other and predict the same dimension. However, A correlates .01 with the criterion while Si correlates .29 with it. It therefore seems that when the strong reconviction pattern of low Si and high HC is not present, R (.24:Criterion, -.07:HC) gives new, additional information in direct relation to the criterion; while A (.59:Si, .01:criterion) also contributes important personality information, its directional meaning must be found in relation to R through R's

higher correlation with the criterion. The A and R difference, therefore, reveals the quadrants and distances between quadrants, giving A meaning in relation to the criterion which it does not achieve on its own.

Parole Violator.--The predictive results seem to resemble Panton's when the distinction is made between revocation and reconviction. Panton (1962b) has stated that this scale predicted which inmates would violate the conditions of their parole to such an extent that they would be returned to the institution for parole revocation. The results showed that this distinction was important with reference to the functioning of the scale in this study. Differences in parole operations for North Carolina and Oklahoma may have contributed some of the variance. However, the similarities on the HC scale suggest homogeneity of populations. Other scales, such as Ec and Rmn, appear to be somewhat more effective predictors of final parole outcome for this study.

Escape.--This scale was built through the establishment of a relationship between the observable behavior of escaping from prison and a constellation of responses to MMPI items. The phenomenon of escape occurs rarely in relation to the total number of inmates who are incarcerated, and, on this basis, the scale might initially appear to be of use only in this limited sphere. Nevertheless, the results of this study suggest that the scale is

sensitive to a dimension much wider than the apparently limited one of escaping from prison. This possibility suggests the need for a thorough examination of escapism from the standpoint of the reality setting where escapism occurs and the personality variables which are indicated to be involved as measured by the MMPI. The original rationale for the development of the scale was rooted in a suspected relationship between personality variables and the escape cycle. Beall and Panton stated that it was "hypothesized from observation that the propensity for escape derives, at least in part, from a constellation of personality variables..." (Beall and Panton, 1956, p. 392).

One basic purpose of a prison and its administration is to protect society from persons who are potentially injurious to its people and property. A prisoner, on the other hand, is interested in his freedom which he cannot have until release. An escape from prison upsets this balance of power and disturbs the everyday equanimity between these traditional rivals.

The escape cycle begins with a need system disturbance within the inmate and proceeds to action in spite of many obstacles. Prison officials may react with embarrassment and anger at the level of feelings. The behavioral reaction is pursuit. The public reacts with interest and sometimes with fear. The escapee attracts special attention from the prison officials, fellow prisoners, the

press, and the public. The conclusion of the cycle is reached when the escapee is captured and reincarcerated. The prison administrator deals with the previous fugitive in ways that are designed to prevent a recurrence of escape for the new captive as well as for the entire prison population.

The complexity of the escape cycle and the implications of depth personality correlates, as well as the Ec scale results, warrant investigation of the content of the scale and an attempt to determine what it actually measures. Four categories were selected as focal points for discussion.

The first cluster was designated "conflicts with the family and authority."

> 294. I have never been in trouble with the law. F
> 42. My family does not like the work I have chosen (or the work I intend to choose for my life work). T
> 224. My parents have often objected to the kind of people I went around with. T 235. I have been quite independent and free from family rule. T 247. I have reason for feeling jealous of one or more members of my family. T 282. Once in a while I feel hate toward members of my family whom I usually love. T

The second cluster contains reports of bodily experience and mental malfunction.

> 3. I wake up fresh and rested most mornings. F
> 47. Once a week or oftener I feel suddenly hot all over, without apparent cause. T 125. I have a great deal of stomach trouble. T 246. My neck spots with red often. T 178. My memory seems to be all right. F
> 159. I cannot understand what I read as well as I used to T 168. There is something wrong with my mind. T

The third cluster seems to depict a "depressive, brooding, emotional tone."

> 107. I am happy most of the time. F 268. Something exciting will almost always pull me out of it when I am feeling low. F 379. I very seldom have spells of the blues. F 395. The future is too uncertain for a person to make serious plans. F 76. Most of the time I feel blue. T 236. I brood a great deal. T 239. I have been disappointed in love. T 252. No one cares much what happens to you. T.

The fourth cluster is entitled "a psychopathic orientation, emphasis on games."

> 294. I have never been in trouble with the law. F 38. During one period when I was a youngster I engaged in petty thievery. T 45. I do not always tell the truth. T 135. If I could get into a movie without paying and be sure I was not seen I would probably do it. T 150. I would rather win than lose in a game. T 157. I feel that I have often been punished without cause. T 250. I don't blame anyone for trying to grab everything he can get in this world. T 277. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it. T 532. I can stand as much pain as others can. T 107. I am happy most of the time. F. 268. Something exciting will almost always pull me out of it when I am feeling low. F 236. I brood a great deal. T 247. I have reason for feeling jealous of one or more members of my family. T 252. No one cares much what happens to you. T 529. I would like to wear expensive clothes. T

On the basis of these data, the escapee is portrayed as a person who lives in a brooding emotional state pervaded by a dismal outlook toward any possibilities for enduring pleasure and gratification. He sees other people and the world as depriving, withholding, punishing, uncaring; his response includes a derogatory, acquisitive attitude toward the property of other persons, a desire to put things over

on others, and his general orientation appears to be strongly inclined toward manipulation of people with elements of retaliation. He has been in conflict with his parents on a number of important issues, such as selection of friends and vocation. The family setting appears to have been a source of frustration and anger, sometimes hatred, more than gratification. He reports that he has been free and independent of family rule. Some curious failures and disturbances are reported in the realm of bodily experience and "thought control," implying poor coordination and integration of feelings, thought processes, and behavior. A few items suggest that sexual adjustment is also a difficult problem. In addition some items suggest that he would sometimes prefer the emotional world and even the role of a child to that of an adult.

These findings are consonant with other studies of prison populations in their revelation of some basic orientations that recidivists assume toward other people and themselves. Something more specific must be involved, however, when responses to these items forecast for the present sample "future involvement with the law" and the outcome of thirteen of fifteen paroles. The escapee in general, the reconvicted subjects in this study, and the subjects with F.B.I. entries of the felony type all have one thing in common: they were all caught. The extent of reaction by authority and the subject's actual behavior

under consideration were variable and could have been different in meaning for each individual situation; nevertheless, it is a simple fact that they were all caught. It is also clear that escapees and recidivists tend to persist in behaviors resulting in considerable personal loss to themselves.

A review of all factors in the escape paradigm, especially the obviously self-defeating aspects, suggested that the MMPI dimension might have a direct corrolary in the game paradigm of "Cops and Robbers" as developed by Berne (1964). To facilitate a thorough description of the game and its relation to the Escape scale, Berne's analysis of "Cops and Robbers" is included in full.

> Thesis: See if you can catch me.
> Aim: Reassurance.
> Roles: Robber, Cop (Judge).
> Dynamics: Phallic intrusion, e.g. (1) Hide-and-seek, tag. (2) Crime.
> Social Paradigm: Parent-Child.
> Child: "See if you can catch me."
> Parent: "That's my job."
> Psychological Paradigm: Parent-Child.
> Child: "You must catch me."
> Parent: "Aha, there you are."
> Moves: (1) W:Definance. B:Indignation. (2) W:Concealment. B:Frustration. (3) W:Provocation. B:Victory.
> Advantages: (1) Internal Psychological - material indemnification for old wrong. (2) External Psychological - counterphobic. (3) Internal Social - See if you can catch me. (4) External Social - I almost got away with it (Pastime: They almost got away with it.) (5) Biological - notoriety. (6) Existential: I've always been a loser (Berne, 1964, pp. 136, 137).

The elements of the escape cycle appear to have corresponding elements in the game paradigm. The internal

psychological advantage of material indemnification for old wrong and the existential advantage of confirming a basic position in life as a "loser" provide a unifying link for the game theory, the dimension measured by the scale, and the behavior of escapees and recidivists.

Utilizing "Cops and Robbers" as the primary tool for discrimination, Berne makes the following distinctions among criminals.

> There seem to be two distinctive types of habitual criminals: those who are in crime primarily for profit, and those who are in it primarily for the game - with a large group in between who can handle it either way. The "compulsive winner," the big money-maker whose Child really does not want to be caught, rarely is, according to reports; he is an untouchable, for whom the fix is always in. The "compulsive loser," on the other hand, who is playing "Cops and Robbers" (C&R), seldom does very well financially. The exceptions to this often seem to be due to luck rather than skill; in the long run even the lucky ones usually end up as their Child requires, squawking rather than riding high (Berne, 1964, p. 133).

The results of this study suggest that the Ec scale is capable of measurements that allow similar distinctions to be made.

The Recidivism-Rehabilitation and Habitual Criminal results indicate that deprivation of needs during childhood is closely associated with recidivism. The Escape scale yields similar results. The childhood game of "hide-and-seek" is the prototype for "Cops and Robbers," in which, Berne says, "the essential element is the chagrin at being found" (Berne, 1964, p. 132). The Ec scale contains several

references to childhood, and other items imply infantile behaviors. These facts assist in an explanation for the appearance of the statement, "There never was a time in my life when I liked to play with dolls," in an empirically derived scale concerning the escape of grown men from prison. Item 398, "I often think, 'I wish I were a child again,'" appears in the Ec scale and the Rmn scale. The fact that this item appears consistently in relation to recidivism suggests that childhood deprivation and the inability to advance beyond childhood levels of development plays an important role. The hide-and-seek paradigm suggests that these persons have never really been "found"; they never achieve enough reassurance even though they play the game in a repetitious way. The child is usually found but the existential albatross is invariably attached: "I have always been a loser."

Ego strength.--One reason for the failure of Es to achieve predictive power is the indication from clinical experience that the extreme ends of the scale, low or high, can be indicative of recidivism potential. This analysis of the data used linear techniques. Furthermore, Barron found that "more accurate predictions could be made when certain childhood experiences of the subject were taken into consideration along with the Es score" (Dahlstrom and Welsh, 1960, p. 307). Such information is not available for these subjects.

Recidivism-Rehabilitation Inventory.--The Inventory embodies the information from previous work with the MMPI that had been shown to be meaningful or potentially relevant to the present problem which focused on youthful offenders, and it includes the Rmn scale that was developed from the present sample. The Psychopathic Deviate and Hypomania scales were included on the basis of their long-standing association with the behavior and character disorders. Predictive values were not discovered for either scale, but individual uses for a single profile are worthy of their usual consideration.

The following hypotheses may be tested through the use of this Inventory when the MMPI validity limits outlined in Chapter III are observed.

1. The Rmn scale predicts recidivism or rehabilitation for subjects similar to the present sample under similar conditions beyond the .01 level of confidence.

2. The Social Introversion scale discriminates between recidivists and rehabilitation successes beyond the .05 level of confidence.

3. Rmn Index values of 3 predict recidivism for youthful offenders.

4. Rmn Index values of 0 or 1 predict rehabilitation for youthful offenders.

5. Rmn Index values of 2 are inconclusive predictors, but the addition of the Anxiety and Repression

discrepancy increases predictive power. Differences of 8 or less and 24 or more indicate a reconviction pattern. Differences between 9 and 24 indicate a rehabilitation pattern.

6. Escape scale scores above 50 are predictive of further involvement with the law. When a rehabilitation pattern is present, the extent of "involvement with the law" increases with higher scores.

7. The Escape scale predicts the outcome of parole; scores above 50 predict failure on parole, and scores 50 or below predict success on parole.

CHAPTER VI

SUMMARY AND CONCLUSIONS

A follow-up study was conducted to discover relationships between the MMPI test responses of youthful offenders and their post-institutional adjustment in relation to the criterion of recidivism. Review of the MMPI literature indicated more homogeneity than differences among this population. The problem was conceptualized as the need to highlight whatever differences were found between recidivists and those who did not return to prison. It was assumed that recidivism, as a multifaceted and complex phenomenon, was a function of personality variables as well as demographic ones. It was also assumed that the MMPI was capable of measuring such differences of personality variables as well as demographic ones. It was also assumed that the MMPI was capable of measuring such differences of personality as they varied.

Fifty Oklahoma State Reformatory inmates were selected as subjects. They had all been convicted of at least one felony, had all applied for services from Oklahoma Vocational Rehabilitation, and had been accepted as

clients. They had completed a valid MMPI before release from the Reformatory. On the basis of a minimum of fourteen months' time lapse after release date, the subjects were divided into two groups of twenty-five on the basis of the criterion of reconviction or parole revocation. F.B.I. entries and vocational adjustment served as broad categories for determining quality of post-institutional adjustment. The groups resembled each other very much on the dimensions of felony types, race, intelligence, and length of sentence served. Age was a somewhat difficult variable for matching purposes, and the reconvicted group tended to be skewed in the younger direction while the rehabilitated group tended to be older.

The rehabilitated group utilized $19,364 of agency funds for training, maintenance, tools, and equipment, while the reconvicted group spent $9,833. The larger expenditures tended to reflect the stability and successful post-institutional adjustment of the rehabilitated group. Members of the rehabilitated group who had F.B.I. entries for investigation of felony type offenses, especially out-of-state entries, appeared to have a poor relationship with the agency and a general lack of stable adjustment.

Twenty-eight MMPI scales, I.Q.'s, age, months served in prison, types of crime, and the criterion were entered into an IBM program of the Fortran type capable of correlating forty variables with one another. The

resulting correlation matrix was used to discover directional trends of scales in relation to the criterion.

The results showed that the simultaneous operation of the Social Introversion and Habitual Criminal scales discriminated between the two groups for twenty of twenty-six subjects who were identified as recidivists or rehabilitated subjects by utilizing scores below 54 on Social Introversion and above 58 on Habitual Criminal as reconvictions and vice versa.

An item analysis of Social Introversion and Habitual Criminal was carried out to gather a closer view of the apparent differences between the two groups on these dimensions. By utilizing twenty-two items from both scales which were responded to differentially five times or more by both groups, a new scale, the Recidivism-Rehabilitation or Rmn scale was developed. A $\underline{t}$ test was computed between the two groups for the Social Introversion, Recidivism-Rehabilitation, Psychopathic Deviate, and Habitual Criminal scales. Pd and HC proved insignificant, but the Si scale discriminated beyond the .05 level of significance and the Rmn scale was significant beyond the .01 level. The Rmn scale in and of itself was correct forty-three times out of fifty. It has no cross validity, however, and it is untested by experience.

Further analysis of the data, utilizing the new scale, showed that something could be done about the

mid-range where the Si scale predicted in one direction and the HC another. A value of 0 was assigned to those subjects who had all three scales, Si, HC, and Rmn predicting in the direction of rehabilitation. Conversely, a value of 3 was assigned to subjects with all scales predicting reconviction. This system was almost unequivocal. Still, the usual mid-range of unpredictability ensued. A tentative solution was discovered for this mid-range by utilizing the numerical discrepancy between the Anxiety scale and the Repression scale. Discrepancies between 9 and 24 tip the scales in the direction of rehabilitation in almost every case with an Rmn Index of 2; values of 1 to 8 or 24 plus tip the scales in the direction of reconviction. This phenomenon was easier discovered and described than explained, and the low number of statistical observations leaves it a tentative result until further research is completed. The correlation matrix suggested that each of the five scales was making its own subtle contribution to the total personality variable constellation which underlay the basic patterns of behavior.

The Escape scale was found to be ineffective in relation to the criterion. However, the scale was discovered to be extremely sensitive to the dimension of "further involvement with the law," or simply the matter of "getting caught." Utilizing a cut-off point of 50, the scale accurately predicted in retrospect thirteen of the fifteen

parole outcomes regardless of whether or not the criterion of parole revocation or reconviction was used. Ec was the one scale which seemed to have a strong relationship with the dimension of "quality of post-institutional adjustment." However, the other scales that established the basic patterns of reconviction or rehabilitation were necessary to make the Ec results clear as there were a number of reconvicted individuals who scored below 60. The Ec results were discussed in relation to the game paradigm of "Cops and Robbers" as developed by Berne (1964). The content validity of the scale appeared to coincide in many respects with the roles, needs, and advantages involved in the game.

The Parole Violator scale results were excellent for the rehabilitated group with five out of six correct predictions. In contrast, there were several false negatives in the reconvicted group unless a distinction was made between parole revocation and reconviction. Three of ten predictions were incorrect on this basis. The combined results for Pav and Ec indicated that the MMPI can achieve high levels of accuracy in the prediction of parole outcome.

The Ego strength scale results were reported, and although the predictive value in relation to the criterion was insignificant, the potential clinical value, especially when the results are considered in light of additional

information from the personal history, appears very useful. The Ego strength scale was included in the Recidivism-Rehabilitation Inventory because it has been shown to be useful in relation to assessment of treatment potential and success in treatment.

The Psychopathic Deviate and Hypomania scale results were also reported. All scales were then combined into the Recidivism-Rehabilitation Inventory which facilitates in one unit the use of the results of this study. The RRI may facilitate research and clinical practice with youthful offenders who resemble the subjects in this study.

Seven hypotheses are proposed for empirical test on the basis of the results of this study. A cross validity study is proposed for the Rmn scale and the Rmn Index as predictors of recidivism. The Escape scale indicates a tendency to correlate with quality of rehabilitation, and this should be tested with careful behavioral observations. Related research would involve a study of MMPI records with validity problems to discover what implications, if any, such factors have for the results of this study where this factor was controlled.

The ex post facto predictive results indicate that psychological testing can assist in the protection of society through statistical identification of persons who are potentially dangerous to the property or person of others. The clinical synthesis of the empirically derived

personality correlates of recidivism generates considerable interest because of the perennial need to improve methods designed to reduce recidivism. Emotional deprivation in childhood, a very pessimistic, resentful outlook on life, a concept of the self as a "loser," and faulty integration of the self-system recurred consistently in the data as more characteristic of the reconvicted group. When an extroverted orientation, antisocial values, and externalization of the sources of conflicts and behavior control are combined with the deprivation baseline, conditions highly conducive to recidivism then exist. Classical prison experience has not only been ineffective in reversing this set of conditions and its behavioral results, it has fostered deeper entrenchment in the recidivism cycle. The data support the conclusion that positive changes in self-concept, advances in personal maturity, and the achievement of new, constructive ways to meet one's needs must occur during incarceration if imprisonment is to accomplish more than temporary protection of society from potential recidivists among the population of youthful offenders.

REFERENCES

Alexander, F. & Healy, W. Roots of crime. New York: A. Knopf, 1935.

Angyal, A. Neurosis and treatment: a holistic theory. Ed. by E. Hanfmann and R. M. Jones. New York: J. Wiley, 1965.

Ausubel, D. P. Ego development and the personality disorders. New York: Grune & Stratton, 1952.

Barron, F. An ego strength scale which predicts response to psychotherapy. J. consult. Psychol., 1953, 17, 327-333.

Beall, H. S. & Panton, J. H. Use of the Minnesota Multiphasic Personality Inventory as an index to escapism. J. clin. Psychol., 1956, 4, 392-394.

Berne, E. Games people play. New York: Grove Press, Inc., 1964.

Bruce, A. A., Burgess, E. W., & Harno, A. J. The working of the indeterminate sentence law and the parole system in Illinois. Springfield: Illinois State Printing Office, 1928.

Caldwell, M. G. Personality trends in the youthful male offender. J. Crim. Law Criminol. Police Sci., Vol. 49, No. 5, Jan.-Feb., 1959, pp. 405 ff.

Carson, R. C. An introduction to MMPI interpretation (Revised). Durham, N. C.: Duke University, 1960.

Clark, A. H. Application of the MMPI in differentiating AWOL recidivists from non-recidivists. J. Psychol., 1948, 26, 229-234.

Clinard, M. Sociology of deviant behavior. New York: Rinehart and Co., Inc., 1957.

Conrad, J. Crime and its correction. Berkeley: University of California Press, 1965.

Dahlstrom, W. G. & Welsh, G. S. An MMPI handbook. Minneapolis: The University of Minnesota Press, 1960.

Eysenck, H. J. Crime and personality. Boston: Houghton Mifflin, 1964.

Franks, C. M. Brit. J. Delinq., Vol. 6, No. 3, Jan. 1956, pp. 192 ff.

Freeman, R. A. & Mason, H. M. Construction of a key to determine recidivists from non-recidivists using the MMPI. J. clin. Psychol., 1952, 8, 207-208.

Glaser, D. The effectiveness of a prison and parole system. New York: The Bobbs-Merrill Co., Inc., 1964.

Glueck, S. & Glueck, Eleanor. 500 criminal careers. New York: A. Knopf, 1930.

Glueck, S. & Glueck, Eleanor. Unraveling juvenile delinquency. Cambridge, Mass.: Harvard University Press, 1950.

Glueck, S. & Glueck, Eleanor. Delinquents in the making. New York: Harper & Bros., 1952.

Gough, H. G. The F minus K dissimulation index for the MMPI. J. consult. Psychol., 1950, 14, 408-413.

Grant, J. D. & Grant, Marguerite. A group dynamics approach to the treatment of non-conformists in the Navy. Annals of the American Academy of Political and Social Sciences, 322 (1959), 126-135.

Grygier, T. Oppression. A study in social and criminal psychology. London: Routledge & Kegan Paul Ltd., 1954.

Hathaway, S. R. & McKinley, J. C. The Minnesota Multiphasic Personality Inventory Manual (Revised). New York: Psychological Corporation, 1951.

Hathaway, S. R. & Monachesi, E. D. (Eds.) Analyzing and predicting juvenile delinquency with the MMPI. Minneapolis: University of Minnesota Press, 1953.

Healy, W. The individual delinquent. Boston: Little Brown & Co., 1927.

Horney, Karen. The neurotic personality of our time. London: Kegan Paul, 1937.

Johnston, R. W. Selection of candidates for adult probation in Saskatchewan by the use of a biographical questionnaire and the MMPI. M. A. Thesis, University of Saskatchewan, 1955.

Kassebaum, G. G., Couch, A. S., & Slater, P. E. The factorial dimensions of the MMPI. J. consult. Psychol., 1959, 23, 226-236.

Klein, Melanie. On criminality. Brit. J. Med. Psychol., 1934, Vol. XIV, pp. 312-315.

Mannheim, H. Comparative criminology. New York: Houghton Mifflin Co., 1965.

Mannheim, H. & Wilkins, L. T. Prediction methods in relation to borstal training. London: HMSO, 1955.

Marks, P. A. & Seeman, W. The actuarial description of abnormal personality. Baltimore: Williams & Wilkins, 1963.

Panton, J. H. MMPI profile configurations among crime classification groups. J. clin. Psychol., 1958, 14, 305-308. (a)

Panton, J. H. Predicting prison adjustment with the MMPI. J. clin. Psychol., 1958, 14, 308-312. (b)

Panton, J. H. The identification of habitual criminalism with the MMPI. J. clin. Psychol., 1962, 2, 133-136. (a)

Panton, J. H. Development of a prison classification inventory (PCI) for the MMPI. unpublished manuscript, 1962. (b)

Rubin, S. Recidivism and recidivism statistics. NPPA Journal. Vol. 4, No. 3, July, 1958. pp. 233-240.

Schuessler, K. & Cressey, D. Personality characteristics of criminals. Amer. J. Sociol., Vol. 50, March 1950, pp. 476 ff.

Sturup, G. K. The treatment of chronic criminals. Topeka, Kansas: Menninger School of Psychiatry, Jan., 1964.

Sullivan, C. E., Grant, J. D., & Grant, Marguerite. The development of interpersonal maturity: applications to delinquency. Psychiatry, 20 (1957), 44.

Warner, S. B. Factors determining parole from the Massachusetts Reformatory. J. Crim. L., vol. 14, p. 172, 1923.

Welsh, G. S. Factor dimensions A & R. In G. S. Welsh and W. G. Dahlstrom (Eds.) Basic readings on the MMPI in psychology and medicine. Minneapolis: University of Minnesota Press, 1956.

Wootton, Barbara. Social science and social pathology. New York: Macmillan, 1959.

APPENDIX A

RECIDIVISM STATISTICS FROM OKLAHOMA AND MISSOURI STATE REFORMATORIES, 1961, 1964

AGE 14-15		16-17	18-19	20-21	22-23	24-25	25+					
Oklahoma	1	50	162	153	78	41	35					
Missouri	13	115	170	113		31						
EDUCATION		0	1-2	3-4	5-6	7-8	9-10	11-12	12+			
Oklahoma			5	14	46	138	235	21	60			
Missouri			1	67	114	109	55	24	1			
LENGTH SENT		Less 1	1	2	3	4	5	6	7	8+	9	10
Oklahoma		4	41	149	109	48	62	18	13	75		
Missouri	38	0	0	203	72	46	64	5	2	3	0	1
IQ Ls. 60		60-69	70-79	80-89	90-99	100-109	110-119	119+				
Oklahoma	8	16	56	104	201	100	24					
Missouri	29	42	63	112	109	48	9					
TYPE OFFENCE		Burg.	Assault	Grand L.	Auto T.	Sex.Off.	Forg.	Amd.Rob.	Rob.F.A.	Pos.Nar.	Mans.	Murder
Oklahoma		193	11	56	61	19	38	26	47	2	22	8
Missouri		188	18	22	59	6	27	16	36	3	2	0
		Other	??									
Oklahoma												
Missouri		23	34									
NO. OFF.		1	2	3	4	5+						
Oklahoma		270	242	7								
Missouri		376	27	3								

	Broken Home		Juvenile Record			Return	Return		% Return	% Return
	Yes	No.	Yes	No.		Yes	No.		Yes	No.
Oklahoma	311	208	130	389	Oklahoma	0	0	Oklahoma	'61-35%	65%
						'61-22	40	Oklahoma	'64-24%	76%
Missouri	261	177	284	142	Missouri	'64 18	75	Missouri	'64-19.4%	80.6%

APPENDIX B

EXCERPTS FROM THE BIENNIAL REPORT OF OKLAHOMA STATE REFORMATORY, 1962-1964

(1) PRISONERS ON BOOKS JULY 1, 1962

A. In Institution		541
B. Out to State Hospital		3
C. Out on Leave		6
	Total	550

(2) PRISONERS ADMITTED DURING BIENNIAL YEAR

A. Received by Transfer from O.S.P.		1,064
B. Returned by Transfer from O.S.P.		4
C. Re-Billed		15
D. Returned for Violation of Parole		57
E. Returned from State Hospital		57
F. Returned from Witness		26
G. Returned from Leave		17
H. Returned from Escape		17
	Total	1,257

(3) PRISONERS DISCHARGED DURING BIENNIAL YEAR

A. Discharged by Expiration of Sentence		679
B. Discharged by Commutation of Sentence		96
C. Transferred to O.S.P.		129
D. Paroled		194
E. Transferred to State Hospital		67
F. Out as Witness		27
G. Out on Leave		21
H. Escapes and Attempted Escapes		13
I. Died		1
	Total	1,227

(4) MOVEMENT AFTER DISCHARGE

A. Discharged from Parole		185
B. Discharged from Hospital		7
C. Discharged from Leave		5
D. Discharged from Witness		1
E. Change from Leave to Parole		4
	Total	202

(5) PRISONERS ON BOOKS JUNE 30, 1964

A. Institution		571
B. Out to State Hospital		6
C. Out on Leave		1
	Total	578

NATIVITY:

Alabama	5
Arkansas	33
Arizona	13
California	49
Colorado	4
Florida	3
Georgia	2
Idaho	2
Illinois	12
Indiana	4
Iowa	4
Kansas	20
Kentucky	3
Louisiana	2
Maryland	1
Massachusetts	3
Michigan	9
Minnesota	4
Mississippi	3
Missouri	12
Montana	1
New Jersey	3
New Mexico	6
New York	6
N. Carolina	2
N. Dakota	1
Ohio	13
Oklahoma	765
Oregon	4
Pennsylvania	8
Tennessee	8
Texas	64
Virginia	4
Washington	4
W. Virginia	2
Total	1,079

RELIGIONS:

Assembly of God	31
Baptist	567
Catholic	103
Christian	22
Christian Science	2
Church of Christ	64
Church of God	30
Episcopalian	3
Four Square Gospel	1
Holiness	77
Jehovah's Witnesses	1
Jewish	3
Lutheran	11
Mennonite	5
Methodist	75
Mormon	5
Moslem	1
Nazarine	41
Presbyterian	15
Progressive	1
Protestant	14
Seven Day Adventist	2
United Brethern	1
1st Reform	1
Salvation Army	3
Total	1,079

PRISONERS RECEIVED ACCORDING TO AGE AND RACE

AGE	CAUCASIAN	NEGRO	INDIAN	MEXICAN	TOTALS
15	13	1	2	0	16
16	66	26	18	2	112
17	96	35	19	2	152
18	114	34	25	0	173
19	117	27	20	1	165
20	96	36	17	2	151
21	68	22	10	2	102
22	55	25	11	1	92
23	54	11	7	0	72
24	27	10	5	2	44
TOTALS	706	227	134	12	1,079

PRISONERS RECEIVED ACCORDING TO RACE AND EDUCATIONS

GRADE	CAUCASIAN	NEGRO	INDIAN	MEXICAN	TOTALS
None	3	1	0	0	4
1st	2	0	0	0	2
2nd	3	0	0	0	3
3rd	3	0	0	0	3
4th	4	2	0	0	6
5th	5	0	1	1	7
6th	30	2	1	0	33
7th	57	10	13	1	81
8th	155	24	38	2	219
9th	170	54	39	5	268
10th	151	59	23	1	234
11th	66	48	8	1	123
12th	49	23	10	1	83
1 Yr. Col.	4	2	1	0	7
2 Yrs. Col.	2	2	0	0	4
4 Yrs. Col.	1	0	0	0	1
5 Yrs. Col.	1	0	0	0	1
TOTALS	706	227	134	12	1,079

TERMS:

3 months	2
6 months	9
8 months	2
9 months	1
10 months	2
11 months	1
12 to 28 mos....	1
1 year	174
14 months	1
1½ years	23
1 to 3 years ...	8
1½ to 5 years ..	1
1 2/3 to 5 yrs..	1
15 months	2
21 months	1
2 years	344
2½ years	16
2 to 6 years ...	2
2 to 7 years ...	2
33 months	1
3 years	231
3½ years	3
3 to 10 years ..	1
4 years	57
4½ years	1
5 years	117
5½ years	1
5 to 15 years ..	1
6 years	9
7 years	16
7½ years	1
8 years	4
8½ years	1
10 years	18
12 to 36 years .	1
12½ years	1
15 years	6
15 yrs. to life.	1
18 years	2
20 years	3
21½ years	1
23 years	1
25 yrs. to life .	1
52 years	1
99 years	1
Life	4
Total	1,079

CRIMES:

Arson	4
Assault to Commit Felony	2
Assault to Commit Rape	1
Assault with Intent to Kill ..	2
Assault W/D/W	29
Bigamy	1
Bogus Check	25
Burglary	406
Carrying Concealed Weapon AFCF	1
Child Abandonment	5
Child Molesting	1
Crime Against Nature	3
Disposing of Mortg. Prop.....	5
Embezzlement	5
Escape	7
Failing to Return Mortg. Property	1
False Pretense	2
Forgery	103
Fraud	1
Furnishing Alc. Bev. to Minor	2
Grand Larceny	118
Indecent Exposure	7
Kidnap	11
Larceny from Building	11
Larceny of Auto	163
Larceny of Domestic Animals	13
Leaving Scene of Accident	2
Manslaughter	9
Murder	4
Perjury	1
Petit Larceny	2
Possession of Marijuana	1
Possession of Narcotics	2
Rape	16
Receiving Stolen Prop.....	18
Robbery	93
Sodomy	2
Total	1,079

OCCUPATIONS:

Auctioneer	1	Porter	23
Baker	2	Printer	2
Barber	17	Projectionist	2
Body & Fender	1	Radar Computer Tech.	1
Book Keeper	2	Radio Announcer	1
Boxer	2	Ranch Hand	7
Brick Layer	7	Refrigeration	1
Butcher	7	Roofer	16
Cab Driver	1	Salesman	11
Cabinet Maker	1	Seismograph Obs.	1
Cafe Worker	15	Ser. Sta. Att.	25
Carpenter	27	Shoe Repairman	2
Carpet Layer	2	Stocker	1
Clerk	19	Student	129
Construction Worker	25	Surveyor	1
Cook	32	Tailor	2
Cement Finisher	3	Tile Setter	2
Craftsman	1	Truck Driver	40
Dairy Worker	13	T.V. Inspector	1
Dry Cleaning	5	T.V. Repairman	2
Dry Wall	4	Upholstery	6
Electrician	13	Vulcanizer	2
Electronics Tech.	2	Welder	8
Engineer	1		
Entertainer	4	Total	1,079
Exterminator	3		
Farmer	72		
Foundry Worker	3		
Hair Dresser	1		
Hospital Attendant	4		
Hvy. Equipt. Oper.	9		
Janitor	3		
Labor	348		
Laundry Worker	8		
Lineman	1		
Lock Smith	1		
Machinist	2		
Maintenance	1		
Management	1		
Mechanic	68		
Metal Worker	4		
Mill Worker	1		
Oil Field Worker	24		
Painter	21		
Parking Attendant	1		
Photographer	1		
Pipe Line Worker	1		
Plumber	8		

APPENDIX C

NON-DISCRIMINATORY ITEMS FROM HABITUAL CRIMINAL AND SOCIAL INTROVERSION SCALES

	Key	Item	Sample	Scales
16.	T	I am sure I get a raw deal from life.	F	HC, Pd
35.	T	If people had not had it in for me I would have been much more successful.	F	HC, Pd
37.	F	I have never been in trouble because of my sex behavior.	T	HC, Pd
38.	T	During one period when I was a youngster I engaged in petty thievery.	T	HC, Pd
42.	T	My family does not like the work I have chosen (or the work I intend to choose for my life work).	F	HC, Pd
43.	T	My sleep is fitful and disturbed.	F	HC, Ap
49.	T	It would be better if almost all laws were thrown away.	F	HC, Ap
61.	T	I have not lived the right kind of life.	T	HC, Pd
82.	F	I am easily downed in an argument.	F	HC, Pd
107.	F	I am happy most of the time.	T	HC, Pd
110.	T	Someone has it in for me.	F	HC, Pd
127.	T	I know who is responsible for most of my troubles.	T	HC, Pd
161.	T	The top of my head sometimes feels tender.	F	HC, Ap
183.	F	I am against giving money to beggars.	F	HC, Pd
192.	T	I have had no difficulty in keeping my balance in walking.	T	HC, Ap
224.	T	My parents have often objected to the kind of people I went around with.	T	HC, Pd
276.	F	I enjoy children.	T	HC, Ap
289.	F	I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.	F	HC, Pd

	Key	Item	Sample	Scales
294.	F	I have never been in trouble with the law.	F	HC, Pd
367.	T	I am not afraid of fire.	T	HC, Ap
385.	F	Lightning is one of my fears.	F	HC, Ap
514.	T	I like mannish women.	F	HC, Ap
553.	T	I am afraid of being alone in a wide-open place.	F	HC, Ap
236.	T	I brood a great deal.	F	Si, Ec
281.	F	I do not often notice my ears ringing or buzzing.	T	Si, SD
309.	F	I seem to make friends about as quickly as others do.	T	Si
332.	T	Sometimes my voice leaves me or changes even though I have no cold.	F	Si, SD
342.	T	I forget right away what people say to me.	F	Si
427.	T	I am embarrassed by dirty stories.	F	Si
436.	T	People generally demand more respect for their own rights than they are willing to allow for others.	T	Si, Ap
462.	F	I have had no difficulty starting or holding my urine.	T	Si, R
473.	T	Whenever possible I avoid being in a crowd.	F	Si
479.	F	I do not mind meeting strangers.	T	Si
549.	T	I shrink from facing a crisis or difficulty.	F	Si, A