

THE SELF-CONCEPT AS A
PREDICTOR OF JUVENILE DELINQUENCY

by

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The Self-Concept as a Predictor of Juvenile Delinquency

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ABSTRACT

THE SELF-CONCEPT AS A PREDICTOR OF JUVENILE DELINQUENCY

Robert F. Kissner

This study evaluates the role which self-concept, as measured by the Tennessee Self Concept Scale, may play in the prediction of juvenile delinquency.

The study focuses on a group of boys who were referred to a juvenile social agency over a thirty-two month period. The research was designed to determine if the Tennessee Self Concept Scale is a useful criterion for differentiating between subjects who commit a delinquency during a follow-up period versus those who do not.

The sample consisted of 139 males, aged 12 to 16. Four subgroups were established on the basis of a subject's degree of formal involvement with the juvenile justice system, ranging from having no previous involvement to being convicted of more than one previous offence.

The results indicate that differences in self-concept do exist between juveniles who commit an adjudicated offence or who were subjects of a Probation Officer's Enquiry during an eighteen month follow-up period, as opposed to those who have

committed no further adjudicated offences.

Some of the results, however, were more provocative than conclusive and variance was found between sample subgroups. For example, while the findings for one subgroup tended to support the hypothesis, those for another tended not to.

In general the study provides some support for the view that negative self-concept precedes the occurrence of offences by delinquents, but not to such a degree that effective prediction is currently possible. Enough questions remain to warrant further research in the area, possibly focusing on a more extensive analysis of several of the subgroups included in the larger study sample.

To Wanda, who by her constant
love and encouragement has taught me much,
and to my parents
who encouraged and supported
my academic work.

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CHAPTER I

INTRODUCTION

The more one works with individuals in a close and intimate relationship, the more one appreciates the infinite variety of individuals in our society as well as the unique identity and worth of each.

- William Fitts (1972)

One of the few agreed upon facts in the study of juvenile delinquency is that not all offenders are alike. They differ not only in the form of offence, but also in response to judicial sanctions. This latter conclusion has been illustrated effectively by a number of studies cited by Gottfredson (1968) and Warren (1972) which demonstrate the differing effectiveness of various programs on various subsets of the offender population.

During the past decade, heightened awareness of such differences and increased disillusionment with traditional correctional methods has led to the establishment of a greater variety of possible court dispositions, with particular emphasis on community-based programs.¹

This increase in community resources has resulted in a need for objective criteria and/or instruments to help justice staff determine which offenders are most likely to respond to such programs. As a result the development of predictive and

classificatory indices have been of interest to an increasing number of researchers. But, while a fairly extensive literature has developed on the subject, current methods are still at a very primitive stage.²

In considering ways of improving treatment decisions, Gottfredson (1970) suggests that each social agency working with delinquents should initiate a continuous cycle of data collection and testing of possible predictive measures. Wenk (1974) indicates that such an approach might also lead to the development of a classification system that has greater relevance for counsellors working in the corrections field. While it is apparent that such research will be varied and highly dependent on the type of program, offender selected, and variables chosen, unless definite criteria are developed, Sarata (1976) suggests that decisions concerning juvenile offenders will continue to be made on the basis of chance and professional politics.

THE CURRENT STUDY

The current study was designed to investigate the effectiveness of a psychometric measure of self-concept in discriminating between juveniles referred to a community social agency (known as PURPOSE) who become recidivists within a period of eighteen months versus those who do not.

The results of the study may contribute to a better understanding of some of the factors linked with recidivism and

aid in the development of predictive criteria for usage by community juvenile resources. Such an investigation also may serve as a stimulus to other practitioners in the field.

BACKGROUND

A number of social psychological theorists have emphasized that persons come to hold views not only of others but also of themselves. For example, Mead (1934), Raimy (1943), Rogers (1951), Combs and Snygg (1959), Buhler (1962), Brandon (1969), and Hansen and Maynard (1973), theorize that a person's view of himself influences and helps to determine his behavior.

One of the earliest and most influential studies dealing with this concept was conducted by Reckless et al. (1957) who took the position that a person's view of himself or self-concept is an important variable in delinquent behavior. Their work suggested that a healthy self-concept may serve as an insulator against delinquency, even in juvenile populations which are otherwise delinquency prone. A growing body of reported research, some of which will be examined later in the study, provides strong substantiation for their claim that delinquents tend to have poor self-concepts.

Ziller (1969) suggests that persons with poor self-concepts are field-dependent and tend to conform to the influence of the prevailing social environment. According to this view a delinquent is seen to react to immediate environmental circumstance rather than using his personal values to mediate

his behavior.

Many of the studies dealing with self-concept have used some kind of psychometric measure and the *Tennessee Self Concept Scale* or *TSCS*, is the most frequently used scale for this purpose.³ Long term research conducted at the Dede Wallace Center in Tennessee by William Fitts and his associates, suggests that the TSCS is a psychometrically sound and useful measure of self-concept. These findings have been reported in a series of research monographs.⁴

A number of reported research studies demonstrate that there are significant differences in the reported self-concept of delinquents. For instance, Balster (1956) using a Q-sort measure found significant differences between recently incarcerated first offenders and recently incarcerated repeaters. He found that the mean positive score of the first offenders was significantly higher than the positive mean score of the repeaters. Lefeber (1965) reports similar findings using the TSCS on a group of 108 first offenders and recidivist juveniles. In a two year follow-up study of 28 delinquents who completed the Highfields program in New Jersey, Joplin (1972) found significant differences in self-concept between eleven subjects recommitted to another institution and seventeen who successfully remained out of correctional institutions.

Such results have important ramifications for agencies working with delinquents. If, as suggested, self-concept may be related to delinquency, and there is a relationship between

the level of reported self-concept and recidivism, then knowledge of reported self-concept may prove to be helpful in determining which offenders are likely to commit other delinquencies.

DEFINITIONS OF TERMS

Adjudicated Offence: Having been the subject of juvenile court proceedings and a determination made that a delinquency has been committed.

First Offender: One who has been guilty but once of committing a delinquency as determined by a juvenile court justice and reflected in juvenile court records.

Fraser Region: A correctional management area consisting of the following municipalities and cities: Burnaby, Coquitlam, Port Coquitlam, New Westminister, Port Moody and Maple Ridge.

Juvenile Court Record: An official record containing summary information pertaining to an identified juvenile, concerning court proceedings, dispositions, and Probation Officer Enquiries.

Juvenile Delinquent: The Juvenile Delinquent Act R.S., C. 160, S.1 (1929) states that:

Juvenile Delinquent means any child⁵ who violates any provision of the Criminal Code or of any Dominion or Provincial Statute; or of any by-law or ordinance of any municipality or who is guilty of sexual immorality or any similar form or vice, or who is liable by reason of any other act to be committed to an industrial school or juvenile reformatory under the provisions of any Dominion or Provincial Statute.

For the purposes of this study, the agency selected for data-collection shall be considered as a juvenile reformatory

and all referrals deemed to be delinquents. This definition takes into consideration the fact that many juveniles who would formerly have been subject to formal court proceedings are currently being diverted directly to social agency programs.

Probation: "The conditional freedom granted by a judicial officer to an alleged offender, or adjudicated person, as long as he/she meets certain conditions of behavior."⁶

Probation Officer: An employee of the Provincial government whose duties include: supervision of individuals placed on probation, and preparation of presentence reports to assist the court in determining the sentence or juvenile court disposition.⁷

Probation Officer Enquiry (POE): An investigation of a juvenile who has admitted to police that he has committed a delinquency. A POE is conducted by a probation officer at the request of the crown prosecutor and its purpose is to enable the crown to determine if an offence should be dealt with in court or by some other means within the provisions of the Provincial Corrections Act.

Recidivist: For purposes, of this study, a juvenile who commits an adjudicated offence or has had a POE conducted on him, within a period of eighteen months after referral to a juvenile social agency.

Self-Concept: A person's conscious self-appraisal of his appearance, background and origins, abilities and resources, and attitudes and feelings. Or more simply, the beliefs a person has about himself resulting from present and past

observation. Self-concept is measured in this study by a psychometric measure known as the Tennessee Self Concept Scale.

Status Offender: "A juvenile who has been adjudicated by a judicial officer of a juvenile court, as having committed a status offence, which is an act or conduct which is an offence only when committed or engaged in by a juvenile."⁸

STATEMENT OF THE PROBLEM

The problem is to determine if a selected group of sixty-seven delinquents who commit further delinquencies after referral to a community social agency, differ on a measure of self-concept from a selected group of seventy-two delinquents who commit no further offences after referral to the same agency. The time period for inclusion in the study was two years eight months and the follow-up period for each subject was limited to eighteen months.

Each subject was given the TSCS on initial entry into agency program and probation records were examined after eighteen months and any further delinquencies they had committed were noted.

The study mainly concerns a comparison of recidivist and non-recidivist program clients with regard to three dimensions of self and five frames of reference on the Tennessee Self Concept Scale.

The independent variables of the study are the dimensions of recidivism and non-recidivism. The dependent variables

are the dimensions of self-concept measured by the TSCS. Extraneous variables such as education and age are assumed to exert equal influences on both groups. This latter assumption is based on a number of studies that will be cited later in Chapter III.

HYPOTHESES

The hypotheses for this study are as follows:

Delinquents who are referred to a community program who maintain a clean record during a follow-up period will obtain significantly higher scores on a measure of self-concept on admission to the program than delinquents referred to the same program who do not (hereafter cited as recidivists), when classified by their:

- (1) overall concept of self;
- (2) basic identity of self;
- (3) self-satisfaction with their basic identity;
- (4) concept of their behavior;
- (5) concept of their physical self;
- (6) concept of their morals and ethics;
- (7) sense of personal worth;
- (8) sense of worth as a family member;
- (9) social self.

LIMITATIONS OF THE STUDY

This investigation was limited to a specific subset of a juvenile delinquent population attending a specific program and was designed subject to the following limitations:

1. an operational definition of self-concept in terms of the scores the subjects obtained on the Tennessee Self Concept Scale;
2. a subject sample which was limited to one hundred thirty-nine juvenile males referred to a community agency located in a suburb of Vancouver, British Columbia, and cannot be regarded as a representative sample of all juvenile delinquents from any location;
3. a standard follow-up period of eighteen months;
4. follow-up data which was limited to juvenile probation record files obtained with the cooperation of juvenile probation officers and restricted to Fraser Region.

OUTLINE OF THE THESIS

This chapter has been concerned with a general overview of the problem and purpose of the investigation.

Chapter II provides a review of self-concept theory as well as a number of studies of particular relevance to this enquiry. In particular it discusses self-theory from a historical point of view, notes difficulties of application and definition, and the theoretical relationship between self-concept and behavior with particular attention to delinquency.

Chapter III details the method and procedures used in the study. It also provides a description of the community program where the study data was collected, describes the subject population, data collection process, and reviews the reliability, validity and the general format of the scale utilized to measure self-concept.

Chapter IV examines the findings obtained from application of the TSCS, and presents a detailed comparison of the study groups.

Chapter V presents the summary, conclusions, and recommendations resulting from the research.

REFERENCES TO CHAPTER I

¹For a more detailed consideration of the trends leading to the development of new sentencing options and the recent emphasis on community-based resources, see for example, M. Q. Warren, *Correctional Treatment in Community Settings: A Report of Current Research*, (Washington: U.S. Government Printing Office, 1972) pp. 1-2; and L. T. Empey, *A Model for the Evaluation of Programs in Juvenile Justice*, (Washington: U.S. Government Printing Office, 1977) pp. 1-2.

²The literature dealing with prediction and classification in criminology is extensive. For further information concerning the logic of classification, see for instance, A. H. Barton, "The Concept of Property Space in Social Research," in *The Language of Social Research*, ed. P. F. Lazarfeld and M. Rosenberg (Glencoe Illinois: Free Press, 1955); also, C. G. Hempel, "Fundamentals of Taxonomy," *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science*, (New York: Prentice-Hall, 1965); also, J. C. McKinney, *Constructive Typology and Social Theory*, (New York: Appleton Century-Crofts, 1966). For similar information concerning the logic of prediction, see for instance, C. I. Dessaur, *Foundations of Theory Formation in Criminology*, (The Hague: Mouton and Co., 1971); also, L. T. Wilkins, "Prediction, Evaluation and Decision Making," in *Evaluation of Penal Measures*, (New York: Random House, 1969).

Wilkins, *ibid.*, pp. 91-94, provides an excellent discussion of the distinction between prediction and classification. Two examples of excellent reviews of general classification approaches are: J. B. Roebuck, *Criminal Typology*, (Springfield, Illinois: C. C. Thomas Pub., 1967) pp. 3-27, and M. Q. Grant, *Interaction Between Kinds of Treatments and Kinds of Delinquents*, Board of Corrections Monograph No. 2, (Sacramento: State Printing Division, 1961). Roebuch identifies four general classification approaches: legalistic, phsycial-constitutional-hereditary, psychological-psychiatric, and sociological. Grant suggests a somewhat different view and defines six general approaches: psychiatrically oriented, social theory, behavioral offence or conformity-nonconformity studies, social perception and interpersonal interaction studies, cognitive approaches, and empirically derived prediction-classification methods.

An excellent review of the critical research problems in using prediction methods is provided by D. M. Gottfredson in his article, "Assessment and Prediction Methods in Crime and Delinquency," in the *Task Force Report: Juvenile Delinquency and Youth Crime*, President's Commission on Law Enforcement and Administration of Justice, (Washington: Government Printing Office, 1966) pp. 171-187. E. A. Wenk provides an excellent overview of

the subject in *An Analysis of Classification Factors for Young Adult Offenders*, Vol. 2, (Davis, California: National Council on Crime and Delinquency, 1974) pp. 21-46. Wenk cites reviews by Sparkes (1968) and King et al. (1971) that indicate that current methods are still at a very primitive stage of development.

³G. H. Joplin, W. T. Hamner, W. H. Fitts, and S. Wrightman, "A Self-Concept Study of Juvenile Offenders in Minnesota," *Dede Wallace Center Papers*, No. 8, (Nashville: Dede Wallace Center, 1973).

⁴see, for instance, W. H. Fitts and W. T. Hamner, *The Self Concept and Delinquency*, Dede Wallace Center, Monograph No. 1, (Nashville: Counselor Recordings and Tests, 1969), and W. H. Fitts, *The Self Concept and Behavior: Overview and Supplement*, Dede Wallace Center, Monograph No. 7, (Nashville: Counselor Recordings and Tests, 1969).

⁵The Juvenile Delinquent Act. R.S., c.160, s.1 defines a "child" as, "... any boy or girl apparently or actually under the age of sixteen years, or such other age as may be directed in any province pursuant to subsection (2)." In British Columbia no other age has been directed and the age stipulated in the Act is applied.

⁶*Dictionary of Criminal Justice Data Terminology*, Search Group Inc., (Washington: Government Printing Office, 1976), p.73.

⁷Adapted from *ibid.*, p. 74.

⁸*Ibid.*, p. 88.

CHAPTER II

REVIEW OF THE LITERATURE

INTRODUCTION

Although Chapter I briefly described the self-concept construct and noted some theorists who suggest that it may be a central dynamic in human behaviour, little attention was paid to some of the key underlying issues and basic postulates.

It is the purpose of this chapter to provide a limited overview of self-concept theory and examine a number of studies of particular relevance to the present investigation. Specifically, the following will be examined: 1) historical development of the concept; 2) definitional considerations; 3) consistency of self-concept; 4) measuring instruments; 5) the role of self-concept in human behaviour; 6) self-concept and juvenile delinquency; and 7) self-concept differences between delinquent recidivists and other delinquent offenders.

In giving consideration to such a wide scope of issues the intent is to build a theoretical framework for later discussion of results, rather than to provide an exhaustive review.¹ It is hoped that such a discursive approach will permit the reader to gain insight into the advantages and limitations of such a concept in delinquency research.

A recurrent theme that is traced throughout the chapter is the view that self-concept should be seen as a screening

and guiding mechanism in the processing of information relative to the self. As will be elaborated later in the chapter, it is posited that perception of self or self-concept plays an important role in influencing and possibly determining an individual's behaviour.

HISTORICAL DEVELOPMENT

The study of self theory in psychology may be traced to one of its earliest sources in the writings of William James. In *Principles of Psychology*, James (1892) identified the *empirical self* which he saw in the broadest sense as the sum total of all that a person could call his own, including the physical objects he surrounds himself with, awareness of his identity before others, and awareness of his own thought processes. James in turn labelled each of these areas as: *material self*, *social self*, and *spiritual self*.

Epstein (1973) notes that James viewed the self as being closely associated with emotions which in turn were mediated through self-esteem. In the same article, Epstein goes on to suggest that our achievements are measured against our personal aspirations, and unless there is a wide divergence between the two, we generally tend to regard ourselves in a positive light. This view is similar to James (1892) who states:

Our self feeling in this world depends entirely on what we back ourselves to be and do. It is determined by the ratio of our actualities to our supposed potentialities; . . . a fraction of which our pretensions are

the denominator, and numerator of our success; thus . . .
 . . . self esteem = $\frac{\text{success}}{\text{pretensions}^2}$

Wylie (1968) notes that after James, the study of the self was pursued to some extent by the introspectionists, such as Calkins (1915), who were unable to absorb the construct into their theories, and consequently the concept gradually fell into disuse. Hilgard (1949) points out that this was also due to the rise of behaviourism in psychology, an approach that rejects the methodology on which self-concept is based.

While the influence of behaviourism curtailed further consideration of the concept within the field of psychology until the 1940's, writers in sociology continued to construct theories about the self.

One of the earliest and most significant contributions to self theory from the field of sociology was made by Charles Cooley (1902), who stressed the relationship between the self and the social environment. He felt that a person's feelings about himself were created as a product of his relations with others. Webster and Sobieszek (1974) summarize Cooley's contributions as three-fold: a) he developed the theory of the *looking glass self*, or the idea that an individual perceives himself in the way that he believes that others perceive him; b) he recognized that a person makes a differentiation between degrees of importance attached to other persons; and c) he developed the notion that one internalizes a mental image of others with whom an individual usually interacts.

George Herbert Mead (1925) modified and extended the concept of the looking glass self, and wrote in terms of the *generalized other*, which he defined as: "The organized community or social group which gives the individual his unity of self . . . The attitude of the generalized other is the attitude of the whole community."⁴

Mead's idea of the generalized other stresses the importance of social roles and suggests that self-concept is derived from the reflective appraisal of others.

In contrast to Cooley, who envisioned self-concept to be fairly fluid and quite responsive to the immediate environment, Mead saw self-concept as a more established semipermanent structure.

Nash (1973) points out that while James and Cooley are similar in stressing the importance of self-feeling, Mead emphasizes the role of self-perception and cognition. Mead argues that self structure is dependent on intellectual versus affective awareness.⁵

With the growth of clinical psychology in the 1940's and an increasing concern with the motivational aspects of behaviour, self referent concepts eventually regained a wide usage in psychology. But, as a result of the influence of positivism on the field, most investigators began to confine their interests to specific dimensions of the self, instead of using the concept in a global manner. Such specification permitted more precise empirical measurement and definition,

and terms such as *self-esteem* and *self-alienation* became popular.

Among a number of articles published on the subject during the 1940's, the work of Victor Raimy (1943) particularly stands out. Raimy defined self-concept as a learned perceptual system that not only influenced behavior, but is itself restructured by behavior and unsatisfied needs and might bear little or no relation to external reality. He further defined the term as: "... the more or less organized perceptual object resulting from present or past observation ... it is what the person believes about himself."⁶ This definition is still widely accepted and recognized as being of tremendous import to later studies.

While Raimy introduced the term self-concept in a form that was to later become its most common terminology, Combs and Snygg (1959) emphasized the term's pragmatic utility. Starting from the premise that all behavior depends on a person's personal frame of reference or phenomenal field, they suggested that the phenomenal field determines behavior. It may therefore be seen that if one observes behavior, the phenomenal field may be inferred, and given an appropriate description of the phenomenal field, behavior may possibly be predicted. Combs and Snygg viewed self-concept as consisting of those parts of a person's personal frame of reference that an individual has differentiated as being definite and reasonably stable characteristics of himself.

In sketching the implications of Combs and Snygg's

thought, Diggory (1966) suggests that since all behaviour is a function of an individual's phenomenal field, knowledge of an individual's phenomenal field may be helpful in predicting their behaviour. However, he points out that since it is impossible to gain access to all of the pertinent information, selection on the basis of relevance must be made. The only relevant facts in his view are the phenomenal ones which an individual designates as having meaning in terms of his present needs. The methodology that Diggory suggests is varied and ranges from self report to observation of behaviour and projective testing. The criteria on which the accuracy of phenomenological conclusions should be tested are: impressions of subjective certainty, comparison with known facts, capability to survive mental manipulations, demonstration of predictive power, achievement of social agreement with others, and demonstration of internal consistency. Diggory's analysis may be seen as an example of the topical interest of Raimy's and Combs and Snygg's contributions, as well as a demonstration that much of the current work in the field is still related to definitional considerations made in the late 1940's.

Having reviewed a number of key figures in the early development of self-concept, we are now in a position to briefly summarize some of the distinguishing elements generally attributed to self-concept. These may be enumerated as follows:

- 1) It is a learned perceptual system that develops out of experience, particularly out of social interaction with

significant others;

2) It may contain different constructs within itself, such as social self, physical self, and spiritual self;

3) It is a dynamic organization that may change as a function of experience;

4) It may have little or no relation to external reality;

5) It is a phenomenological construct.⁷

DEFINITIONAL CONSIDERATIONS

Any attempt to derive a precise definition of self-concept from the current literature is likely to end in confusion and lack of consensus. In a recent review of the topic, Marx and Hillix (1973) note that there are nearly as many definitions of self-concept as there are theorists. They also claim that many of the current approaches lack operational meaning. While a general definition of self-concept is provided in most studies, frequently it is used interchangeably with terms such as self-esteem, self-perception, and other self referent labels.

Wells and Marwell (1976) note that one of the principal difficulties has been that self-concept is not only a theoretical construct used in social science, but is also a term that is frequently used in everyday language. Consequently, since most researchers have an intuitive idea as to what self-concept is and does, "... it often seems unnecessary to spell out its

nature and processes by which it operates."⁸ Such oversight raises serious difficulties, making comparisons between studies difficult, as well as leading to a less than critical analysis of results and a tendency to treat the concept as a *given* rather than as a hypothetical conceptualization. They further suggest that if such a term is not properly operationalized and is at the same time used in an explanatory way, then the feeling that it is a useful construct may grow, while the appropriateness of the explanations may remain untested.

In light of our discussion to this point, it might be argued that given the difficulties in developing a precise definition and the lack of consensus in the field, perhaps it would be better to seek alternate concepts. In defence of usage of the term despite its deficiencies, theorists such as Diggory (1966) indicate that general definitions are acceptable as long as they are clear and capable of application in experimental operations. Wells and Marwell (1976) note that, as a hypothetical construct, self concept shares, with a number of other sociological and psychological conceptions, difficulties of scientific abstraction. They see definition as a process in which refinement is ultimately dictated by experiment. Finally, McKinney's (1966) rationale for constructive typology may be applied, as he suggests in the following quotation:

The constructed type is apragmatic expedient and does not purport to be empirically valid in the sense of retaining all the unique aspects of the empirical world. The main purpose it serves is to furnish a means by which concrete occurrences can be compared, potentially measured, and comprehended ... 9

As stated earlier, the definition of self-concept selected for the present investigation was a person's conscious self-appraisal of his background and origins, abilities and resources, and attitudes and feelings. Or more simply, the beliefs that a person has about himself resulting from present and past observation.

It may be seen that our definition implies a configuration that is developed as a function of past and present experience. This also suggests that self-concept may be seen as a fairly stable structure, which paradoxically is also dynamic, as conceptualizations of self change over time. In making a division of past and present influences it should also be recognized that the individual's self-concept may also be described according to multiple dimensions. Thus, self-concept may be seen as a convenient label for a number of subreferents rather than being considered as a global construct. Other implications will become clear later in the discussion.

STABILITY OF SELF-CONCEPT

Gergen (1971) suggests that one of the traditional issues of debate among theorists is whether self-concept is to be considered a stable entity which is structural in nature or whether it is dependent on given circumstance and as such, only constitutes a referent process. While detailed consideration of this issue is beyond the scope of the current review, it will be briefly considered.

A number of theorists whom we have examined to this point, such as Combs and Snygg (1959), view self-concept as a relatively stable entity consisting of an organized set of cognitions and perceptions of self. Other theorists, such as Roseberg (1965) and Rogers (1960), promulgate similar views.

In contrast, other theorists, such as Mead (1934), Diggory (1966) and Secord (1968), suggest that viewing self-concept as dynamic and subject to change over time would facilitate our understanding of human behaviour. Such a consideration suggests that self-concept is a perceptual process and its primary value lies in its use as an explanatory force.

A possible resolution that suggests that the two viewpoints may be used in a complementary manner has been suggested by Gergen (1971). He argues that just as an understanding of how a machine operates involves a comprehension of how the component parts operate, a discussion of concepts requires a knowledge of the process of conceptualizing. In other words, using a structural concept or approach does not require that all considerations of process be ruled out, for processes "... involve the operation of entities".¹⁰

In applying the logic Gergen suggests, Fitts (1971) posits that self-concept should be considered as a frame of reference through which an individual interacts with the world. He proposes that self-concept is particularly affected by:

- a) interpersonal experience of a positive nature,
- b) competence in areas adjudged by the individual and others to be of value,

and c) increased realization of one's potentialities.

Reported studies tend to agree with the view that a person's self-concept is relatively stable. For example, in an unpublished compilation of studies designed to measure self-concept change in juvenile delinquents, Fitts (1973) reports that significant changes are reported in only 23 of a total of 75 studies examined. This fact suggests that self-concept, at least as measured by the TSCS, is fairly stable and is not subject to substantial change or fluctuations over time. Therefore, where significant changes are reported, it is a good indication that substantial change has occurred in an individual.

Taylor (1955) found similar results in his study, and in an extensive review concludes that self-concept is: a) generally stable as a total entity although subject to change in minor ways; b) not affected by immediate feelings or moods; and c) is mildly affected by repeated psychometric measurement in the direction of the original valuation as a consequence of introspection. Additional studies by Via (1969) and Fitts and Bell (1962) corroborate Taylor's conclusion.¹¹

For the purposes of the present investigation, the approach taken will reflect the type of logic suggested by Gergen, the application elaborated by Fitts, with the recognition of relative stability noted in the cited investigations.

MEASURING INSTRUMENTS

As mentioned earlier in the chapter, lack of a precise

definition of self-concept has resulted in difficulties at the methodological level in developing techniques for the measurement of self-concept.

Wylie (1961, 1974) suggests that most instruments designed to measure self-concept have been devised for a particular study with little replication or assessment of validity and reliability. As a consequence, comparison between studies is often difficult, and care must be taken to ensure that any significant differences are noted. Bonjean et al. (1967) make the important point that such a difficulty is characteristic of social-psychological research in general, rather than of self-concept in particular.¹² They note that some 2,080 different measures were used in over 3,609 social research studies that involved the application of scales or indices.

Spitzer, et al. (1966) and Zirkel (1971) provide support for Wylie's criticism of current approaches to self-concept research, and suggest that if the proliferation of instruments is to be reduced, then further data relating to the psychometric properties of individual instruments is most desirable.

In attempting to understand some of the difficulties involved in devising and/or selecting an instrument for self-concept measurement, it may be helpful to be aware of a few of the main difficulties that should be taken into consideration. According to Lowe (1966), any attempt to measure self-concept faces three main problems: 1) demonstration that what is measured is congruent with actual inner conceptualization;

2) development of specific terms for inclusion in test instruments that meet with general concurrence of other researchers; and 3) evidence that there is acceptable congruence between the operational definition on which the test is based and actual test measurement. In seeking to improve current methods he proposes that individual instruments should be validated in comparison with established variables. He further states that ultimately such instruments will stand or fall on the basis of their utility in providing further understanding of human behaviour.

While a number of self-concept measures have received some sampling and study, such considerations have usually been limited to a specific subtopic area.¹³ As a result, the selection of a particular instrument for research purposes has usually been an arbitrary choice. For the present investigation, the Tennessee Self Concept Scale (TSCS) was selected. In a review of over thirty self-concept measures used most consistently in published reports, Crandall (1973) concludes that in overall quality the TSCS currently represents the best of the available measures that are specifically designed to measure self-concept. Criteria Crandall used in making his selection included consideration of a test's convergent validity (the extent the scale relates to similar measures), discriminant validity (the extent to which the test doesn't tap irrelevant constructs), and predictive validity (the extent to which a scale predicts relevant criteria). Wells and Marwell (1976)

point out that the test is one of the few measures available that take an individual's response bias into consideration by giving a weighted index of how an individual distributes his/her answers across five available choices in responding to various items on the scale. Bliss (1977) notes that one of the advantages of the test is the fact that test items have been drawn from a wide frame of reference and that it is not culture-bound. In addition to other available data concerning the test's validity and reliability, which will be discussed in Chapter III, consideration was also given to the fact that since the test has been used in a considerable number of delinquency studies, a body of literature exists for comparison purposes. Finally, in selecting the TSCS as the test instrument for the study, consideration was also given to the fact that it is currently being employed by several programs in British Columbia as well as Alberta and the results might have some pragmatic implications.¹⁴

SELF-CONCEPT AND BEHAVIOUR

Self-concept is held by most self theorists to be of considerable significance in determining an individual's behaviour.

Combs and Snygg (1959) hold the view that without exception all behaviour is "... completely determined by and pertinent to the phenomenal field (including self-concept) of the behaving organism."¹⁵

Raimy suggests a more moderate view and states that

"... our general behaviour is to a large extent regulated and organized by what we perceive ourselves to be."¹⁶ According to Rainy, self-concept has social meaning for the person and acts as a frame of reference or background for behaviour. Thus, self-concept may be seen as playing a definitional role in regulating a person's status and functions in society. This may be elaborated as follows:

As an integrated or conflicted perceptual system, the Self Concept forms the criterion against which choices as to direction and kind of behaviour are made. If a person believes that a certainly valued aspect of his self concept can be overshadowed... he will probably engage in covering up... Insofar as the person has control over his actions, any act is determined by the relationships existing between the strength of the need or drive which is motivating, the content and structure of the Self Concept, and the goal of the individual... (However) ... there may be factors in the external situation or conflicts in the Self Concept which enter into determination of behaviour. 17

Rogers (1951) takes the position that self-concept is responsible for selecting patterns of behaviour; however, he adds that organismic processes and automatic behaviours should be taken into account.

Overall, the research evidence indicates a significant relationship between self-concept and behaviour. For instance, studies conducted by Roseberg (1965), Suinn (1961), and Tessler and Swartz (1972) indicate that low self-concept in adolescence is highly related to low acceptance by peers, periods of anxiety and withdrawal, and poor acceptance of others. Other studies conducted by Stotland and Hillmer (1962), Silverman (1964), and Cohen (1959) show that individuals tend to demonstrate

different patterns of response to success and failure dependent on their level of self-concept, positive or negative. Finally, Wahler and Pollio (1968), and Krop et al. (1971), as reviewed by Ryan et al. (1976), found that specific behavioural changes in children were also accompanied by positive changes in self-concept. They further suggest that there is some evidence to indicate that positive behavioural changes are preceded by positive self-concept changes.¹⁸

Of particular interest to the current investigation are studies demonstrating a relationship between self-concept and behaviour conducted using the TSCS. In a series of monographs, Fitts (1969, 1971, 1972a, 1972b) reviews a considerable number of studies that reveal that significant differences exist among various subsets of the general population, and these differences are related to differential performance in a variety of situations.

In seeking to specify how self-concept accounts for such a wide variety of behaviours, Wylie (1968) summarizes the three main points as:

- 1) At any given stage of development of the self-concept the person tends to perceive or learn more readily things which are consistent with the self-concept while tending not to learn or believe things that are inconsistent with the self-concept...

- 2) ... a person with an inaccurate self-concept is said to be vulnerable because he is continually exposed to the possibility of receiving negative reactions from others. These reactions may be ones to which he cannot respond in a way leading to positive reinforcement; and furthermore they may force upon him a negatively reinforcing revision of the self-concept.

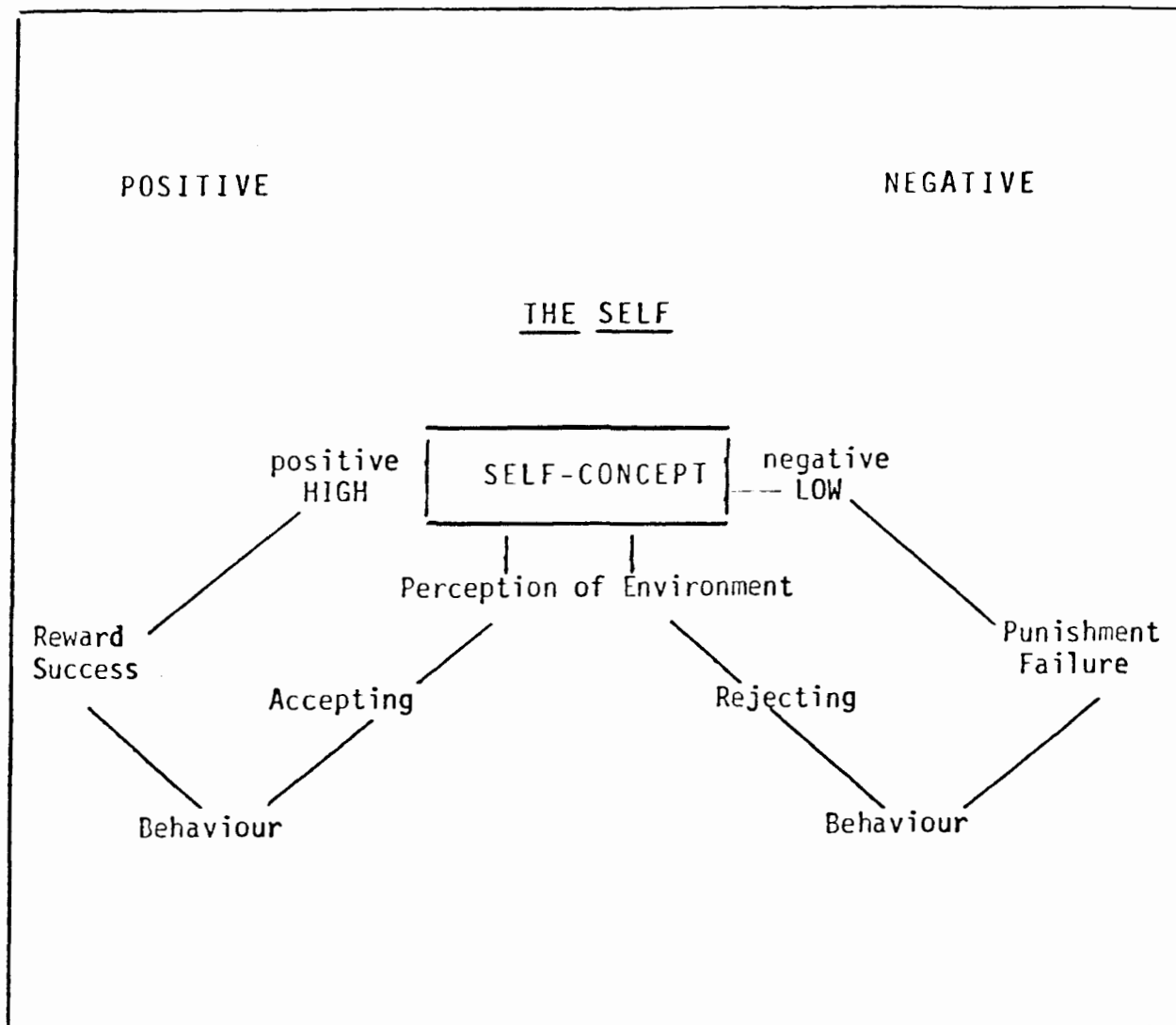
3) Evaluation of others is a positive function of one's own level of self-evaluation... one's level of self regard might generalize to others and in this hypothesis we again deal with the supposed antecedent influence of level of self regard upon level of regard for others. 19

Of particular import to later discussion is the ability of self-concept to account for negative behavior. Such behavior is usually accounted for by self theorists as a result of failure to correctly symbolize experience and as a mechanism of covering up negatively valued aspects of self-concept. It is posited that the degree of inappropriate behavior is determined by how negative a person's self-concept is. Conversely, a positive self-concept may lead to appropriate behaviors and what Hansen and Maynard (1973) term a greater acceptance of reward and success.

The relationship between negative and positive valuation of self-concept and behavior may be seen more clearly in Figure 1 which illustrates a behavioral flow chart of positive and negative behavior.

Combs and Snygg (1959) have provided one of the more cogent developmental explanations for the composite that is provided in Figure 1. They suggest that each person develops a concept of self in interaction with others and that future interactions will be coloured as a function of whether or not that relational experience has been positive or negative. As a result, an individual develops an orientation to the environment that is accepting or rejecting. This conception in turn

FIGURE 1
 POSITIVE VERSUS NEGATIVE SELF-CONCEPT A
 BEHAVIOURAL FLOW CHART *



* Adapted from J. Hansen and P. Maynard, *Youth: Self-Concept and Behavior*, (Columbus, Ohio: C. E. Merrill Pub., 1973) p. 54.

may be enhanced, impaired, or reinforced dependent on whether reactions to further behavior have a rewarding or punishing effect and are perceived as successes or failures.

Investigations conducted by Videbeck (1960), Maehr et al. (1962), Weinstein and Black (1969), and Schafer et al. (1973) tend to support Snygg and Combs view that self-concept may be modified in the direction of feedback and information provided by others.²⁰

A study and review conducted by Mischel et al. (1973) suggested that an individual can reinforce positive or negative perceptions of himself through a process of selective attention. Their data agreed with collected results of other studies and suggests that success experiences lead to more benign reactions to oneself and others. This in turn is manifested in behavior that stress, "...the positive aspects of the self in one's interactions with others."²¹ Conversely, failure and negative feedback leads to a more critical and negative reaction to oneself and others, which may result in maladaptive behavioral reactions. As we will examine more fully later in the text, under this model specific negative behaviors may be accounted for on the basis of a degree of negative valuation acting in concert with sublimation and repression.

SELF-CONCEPT AND DELINQUENCY

Self-concept theory suggests that delinquents tend to act out their disturbances rather than using a repressive

process in accepting a negative valuation of themselves. Self-concept is seen to play a definitional role in regulating an individual's reactions and behaviors in society. Such a theory suggests that delinquents and non-delinquents will manifest very different self-concepts, and differentiations within populations may occur.

The purpose of this section is to describe some of the empirical evidence relating self-concept to delinquency through a selective review of the literature.

One of the most frequently cited and comprehensive investigations of self-concept and delinquency was conducted by Reckless and associates (1956, 1957a, 1957b, Dinitz et al. 1962). Their research was completed in four stages and has been reported in a series of four journal articles.

In the initial research stage, 30 sixth grade teachers from a high delinquency area of Columbus, Ohio, were asked to designate those white-male students in their classes who, in their opinion, would not become juvenile delinquents. After eliminating 16 boys who had already been adjudged delinquent and 51 others who could not be located in the community, the remaining 125 boys received a series of tests. Results indicated that the selected *good* boys were less vulnerable to delinquency and were more socially responsible than boys with behavior problems and reformatory inmates, when compared on the Gough California Personality Inventory. Additionally, data collected concerning self conceptualization suggested

that the research subjects had positive views of their family life and portrayed themselves as being law abiding and obedient. Relating these results to freedom from illegal activities, Reckless et al. (1956) conclude that: "... there is a strong suspicion that a well-developed concept of self as a good boy is the component that keeps middle and upper class boys, who live in better neighbourhoods, out of delinquency."²²

In the second phase of the research conducted one year later, Reckless and his associates asked the same group of teachers to designate those white-male students in their classes who they thought would become delinquents. The 108 selected boys, of whom 24 had already been adjudged delinquent, received the same set of tests given the previous group. Comparisons made between the two groups showed significant differences in the expected direction, with the *bad* boys obtaining less favourable results on all measures. Thus, the results tend to support Reckless's initial conclusion that self-concept may be an underlying factor in delinquent and non-delinquent behavior.

Four years after the first contact a follow-up study was conducted to determine how many boys in each group had become delinquent. Of 103 designated good boys still living in the area, four had been convicted of fairly minor offences, whereas, of the 70 designated bad boys included for follow-up, 27 had been convicted an average of three offences. After reviewing these findings, Lively, Dinitz, and Reckless (1962)

conclude that self-concept acts as an insulator against delinquency even in subsets of the population that are considered delinquency prone. Reckless and Dinitz (1967) elaborate their rationale as follows:

We feel that components of the self strength, such as a favourable concept of self, act as an inner buffer or inner containment against deviancy, distraction, lure and pressures. Our operational assumptions are that a good self-concept is indicative of a residual favourable socialization and a strong inner self, which in turn steers the person away from bad companions and street corner society, toward middle class values, and to awareness of possibility of upward movement in the opportunity structure. 23

In a methodological criticism of the foregoing study, Hirschi and Selvin (1967) suggest that Reckless et al. may have erred by assuming that good boys all have equally good self-concepts and that bad boys all have equally bad self-concepts. For instance, over half of the boys responded favorably to the question: "Up 'til now, do you think that things have gone your way?"²⁴

Smith (1972) provides a simple answer to Hirschi and Selvin's criticism by suggesting that individual fluctuations will not affect the posture of the group since individual fluctuations are probably offsetting.

Tangri and Swartz (1967) note that while improved measures are needed to measure self-concept, it is certainly feasible to operate on the postulate that self-factors determine direction of behavior toward or away from delinquency. One weakness in the Reckless et al. (1956, 1957) research which they point out, is the fact that many of the test items

were drawn from a middle class frame of reference. Consequently, this may have unfairly biased the responses of the bad boy group in a negative direction without consideration of positive alternatives.

Other criticisms of the Reckless et al. (1956, 1957) research include the fact that possibly Merton's (1968) concept of the "self-fulfilling prophesy" could explain why such a high proportion of the two groups fell in the predicted direction. Also, the teachers' nominations may have resulted in a less than representative sample of non-delinquents, as a majority of superior students may have been included in the group.

In an investigation similar to the Reckless et al. (1957) study, Donald (1963) found that boys categorized as delinquency-prone by teachers had low self-concepts when measured by the California Personality Inventory. A significant number of the boys were found later to have committed delinquencies.

Other studies have found significant differences between delinquents and non-delinquents on a number of self-concept measures. Grant (1962) in a comparison study of 51 delinquent and non-delinquent girls matched on the basis of age, race, I.Q., and socio-economic status, found delinquent girls rated themselves more negatively on three separate scales used in the study. Similarly, Deitche (1959) using an early version of the TSCS, found significant differences between

50 delinquent and 50 non-delinquent white males. While this difference was not found on all dimensions of the test, in every case the direction of the difference revealed a more positive self-concept for the non-delinquents.

A study conducted in New Zealand by Roberts (1972) found that not only did self-concept differentiate between non-delinquent and delinquent girls, but also good self-concept was related to good performance on parole and a satisfactory work record. The Twenty Statements Test (McPartland, 1959) was used as a measure of self-concept and administered to 110 girls sentenced to their first term of residential training, between the years 1964-1966. Six months after release from the program each girl was sent a follow-up test with a letter seeking information about current status. She found that self-concept discriminated between delinquent and non-delinquent girls and was significantly related to ultimate performance on parole.

Gold (1978) reports a study by Massimo and Shore (1963) that points to a causal relationship between self-concept and delinquency. Twenty boys aged fifteen to seventeen who were at the point of leaving school and who were adjudged delinquent were selected for the study. Ten boys were selected to receive comprehensive guidance and employment assistance for a period of ten months, while the other ten did not. At the end of that time, seven of the control group had been placed on probation compared with only three of the treatment group.

The Thematic Apperception Test was used to measure self-concept and subjects were tested at the beginning and end of the ten months. Improvement in self-concept was noted significantly more frequently for the treatment than the control group. A causal relationship to changes in behavior is suggested by the authors: "The results indicate that the first area of change is in attitude toward self."²⁵

Kaplan (1976) in a study of over 4000 junior high school students who were asked about their attitudes towards themselves on a questionnaire and about their deviant behavior in the previous year, found a significant correlation between low self-concept and the commission of delinquent acts.

In summary, a number of different investigations employing several different measures of self-concept indicate that significant differences exist between delinquent and non-delinquent youth. Each of the studies corroborated the view that non-delinquents tend to have more positive or a higher self-concept than delinquents. Thus, the studies support the hypothesis that low self-concept is correlated with delinquent behavior.

SELF-CONCEPT DIFFERENCES BETWEEN GROUPS OF DELINQUENTS

A number of studies have successfully attempted to investigate whether self-concept differences exist between groups of delinquents. It is hypothesized that since there is a constant interaction between a person's self-concept and

his behaviour, with each influencing the other, that differences will exist according to the degree of involvement with the justice system. For example, differences should exist between first offenders and recidivists, and institutionalized and non-institutionalized delinquents.

Balster (1956) used a Q-sort measurement of self-concept to determine whether a differentiation could be made between recently incarcerated recidivist delinquents, already incarcerated recidivist delinquents, recently incarcerated delinquent first offenders, and already incarcerated delinquent first offenders. He found that the two groups of first offenders had a significantly higher positive mean score than the two groups of recidivists. In comparing each group independently, he found that the two groups of recidivists obtained Q-sort variance scores that were closer to each other than either of the other two groups. He concluded that even in those instances where obtained differences between first offenders and recidivists were not significant, the trend indicated higher scores for first offenders.

In a study that compared non-delinquent, recidivist, and first offender delinquents, Lefeber (1965) found rank order differences between the groups. Non-delinquents obtained the highest mean score on the TSCS used in the study, the first offenders next, and the delinquent recidivists obtained the lowest mean score. Differences on the scale were consistently found to be the most extreme between the recidivist and

non-delinquent groups.

Fitts (1969) suggests that in design, execution, and thoroughness, the Lefebber study is unsurpassed in studies conducted using the TSCS. Certainly the procedure that Lefebber used demonstrates attention to empirical detail. He administered the TSCS to a group of 410 non-delinquents, 206 delinquent first offenders, and 231 delinquent recidivists. Subjects were matched on the basis of age, ethnicity, mental maturity, and socio-economic status to produce a study sample of three groups of 58 juveniles. Profile patterns for each of the groups were plotted and the results noted earlier obtained.

In the recommendation section of the research, Lefebber suggests that further study should be made of delinquent first offenders, since:

It is quite possible that at least two subgroups would emerge: 1) those that would appear destined to join the recidivist group, and 2) those whose profiles diverge from the recidivist pattern. This suggests that among the first offenders a good prognosis subgroup could be identifiable for future study and treatment. 26

Dorn (1968) investigated whether significant differences existed between 104 institutionalized delinquents, 52 non-institutionalized delinquents, and 176 non-delinquent male adolescents on dimensions of self-concept, alienation, and anxiety. Measures employed included: the Twenty-Statement Test (McPartland, 1959) to measure self-concept, the Manifest Anxiety Scale (Taylor, 1953), and an alienation measure

constructed for the study. He found a correlation between the degree of self-depreciation, anxiety, and alienation, as well as overall level of self-concept. Specifically, he found that non-delinquents had a higher level of self-concept than the delinquent groups and that non-institutionalized delinquents in the study had a more positive self-concept than institutionalized delinquents.

Fitts and Hamner (1969) compared 54 delinquent first offenders with 42 delinquent recidivists incarcerated at a correctional institution in Pikeville, Tennessee, using the TSCS. They found that the recidivists obtained consistently more deviant scores than the first offenders on all test scores.

A more recent study conducted by Curry, Manning, and Monroe (1971) on male juvenile offenders from three different correctional institutions in the state of Tennessee found significant differences between first offenders and recidivists. The data indicated that recidivists have a more negative self-concept than first offenders.

Similar results have been obtained in New Zealand by Masters and Tong (1968) using the semantic differential test. West (1973), in citing the study, notes that recidivist delinquents had worse self-concepts than either non-recidivist delinquents or non-offenders. In the same study, Masters and Tong also found that offenders who are likely to commit further offences are less socialized than either the first or non-offender groups.

In yet another study, Craig (1975) found significant differences between recidivists and first offenders attending a six-month institutional program in Plainfield, Indiana. His study was originally designed to investigate the correlation between gains in academic achievement and self-concept improvement. The TSCS was used as a measure of self-concept and was administered to 210 juveniles before and after completing the program. Academic measures included the Wide Range Achievement Test (WRAT) and the Stanford Reading Test (SRT). Results showed that juveniles in the program improved significantly on fifteen of the seventeen TSCS subscales, and a significant correlation was found between self-concept improvement and academic performance. It is interesting to note that the proportion of delinquents who later committed further offences and who showed self-concept improvement during the program, was significantly smaller than those recidivists whose test scores indicated no change or lower self-concept valuation. Such a result suggests that measurable improvement in self-concept may prove to be a possible indicator of later positive performance in the community.

Fitts and Hamner (1969) report a study by Joplin (1968) at Highfields Center in New Jersey that showed similar results. Data collected showed that those participants who demonstrated the greatest improvement in self-concept while in the program were the least likely to be convicted of further delinquencies.

Bliss (1977) compared 29 juveniles in detention, 27 juveniles on probation, and 56 non-delinquents, using a modified

version of the TSCS and the Twenty Statements Test. Results were consistent with the other reported research with delinquents in detention having the most negative self-concept, followed by delinquents on probation, and then non-delinquents.

A major shortcoming of the Bliss (1977) study as well as the others cited is the fact that no determination is made as to whether a youth's negative self-concept preceded or followed initial and subsequent delinquent labelling. Casual inference on the basis of studies that utilize such an after-only research design is extremely risky. Ideally, a before-after research design should be employed that permits initial self-concept testing of a group of juveniles with subsequent follow-up and comparison on the basis of involvement or further involvement with the justice system. Such an approach may help in providing further information as to which juveniles are likely to become involved or further involved with the justice system.

Although Lefeber (1965) found the TSCS to be a suitable self-concept instrument and recommended that a before-after study of first offenders should be conducted, a review of the TSCS literature until the end of 1974 shows that only one limited study by Joplin (1972) has focused on the question in such a manner.²⁷ Joplin followed up 28 juvenile delinquents two years after they had completed the Highfields Program in New Jersey. The subjects were analyzed according to pre- and post-test scores on the TSCS. Results indicated that the two

groups were initially different with the recidivists reporting a more positive self-concept than the non-recidivists. However, this result could be explained by the fact that the recidivists obtained a significantly lower score on the measure of self-criticism included in the test. While Joplin noted that cross-validation of the research would be required, he suggested that results indicate that such tests may prove to be beneficial in determining which youths are likely to benefit from such programs.

The current investigation was designed to contribute further information to the question of whether a negative self-concept precedes delinquent behaviour and whether the TSCS is beneficial in determining which delinquents are likely to benefit from a particular community program.

SUMMARY

This review of the literature has attempted to provide an overview of a number of issues and studies relevant to the present investigation. Consideration was given to the historical development of self-concept theory, difficulties of definition and measurement, and self-concept stability. Background on the role of self-concept in human behaviour was provided through consideration of several of the leading self theorists and empirical studies. It was concluded that self-concept plays an important role in determining human behaviour.

Studies concerning self-concept and delinquency were

examined and it was concluded that delinquents generally tend to have negative or poor self-concepts. It was found that delinquents could be differentiated from non-delinquents on the basis of self-concept.

Finally, studies concerning self-concept differences between groups of delinquents were examined, and it was shown that differences existed according to the degree of involvement with the justice system. It was noted that further study would be required using a before-after design to determine whether negative self-concept precedes recidivist behaviour.

Further discussion of the framework presented in this section will be presented in the succeeding chapters as the present investigation is analyzed. In the next chapter, the methods and procedures used in the study are presented. The chapter provides a description of the community program selected for investigation, the subject population, data collection procedures, and a review of the reliability, validity, and general format of the scale used to measure self-concept.

REFERENCES TO CHAPTER II

¹For a more detailed review, see for example: K. Gergen, *The Concept of Self*, (New York: Holt, Rinehart and Winston, 1971), also R. Wylie, "The Present Status of Self Theory", *Handbook of Personality Theory and Research*, ed. E. Borgatta and W. Lambert, (Chicago: Rand McNally and Co., 1968), also R. Wylie, *The Self Concept*, (2nd ed., Lincoln: University of Nebraska Press, 1974), also L. Wells and G. Marwell, *Self-Esteem: Its Conception and Measurement*, (Beverly Hills: Sage Publications, 1976).

²William James, *Principles of Psychology*, (New York: Holt, 1890) p.310, cited by J. Diggory, *Self-Evaluation: Concepts and Studies*, (New York: John Wiley & Sons, 1966).

³George Herbert Mead, *Mind, Self, and Society*, (Chicago: University of Chicago Press, 1934) cited by, M. Webster Jr. and B. Sobieszek, *Sources of Self-Evaluation*, (New York: John Wiley and Sons, 1974) p. 11.

⁴Ibid., p. 11.

⁵The work of Cooley and Mead are part of an orientation in sociology that stresses the psychological meaning in human relations. From this standpoint self-concept may be seen as an important link between the fields of psychology and sociology and as a result may offer a unique interdisciplinary perspective to juvenile delinquency study.

⁶Victor Raimy, *The Self Concept as a Factor in Counseling and Personality Organization*, (PhD dissertation, Ohio State University, 1943), p. 24.

⁷Phenomenological in the sense that R. Wylie (1974) uses the term, to mean the study of direct awareness. Because of the central role accorded to conscious perceptions, cognitions and feelings, self-concept theory has often been termed *phenomenological*. For a more detailed consideration see R. Wylie, *The Self Concept*, (2nd ed., Lincoln: University of Nebraska Press, 1974), pp. 8-12.

⁸L. Wells and G. Marwell, *Self-Esteem: Its Conception and Measurement*, (Beverly Hills: Sage Publications, 1976) p. 8.

⁹J. McKinney, *Constructive Typology and Social Theory*, (New York: Appleton Century-Crofts, 1966) p. 12.

¹⁰K. Gergen, *The Concept of Self*, (New York: Holt, Rinehart and Winston, 1971), p. 19.

¹¹cited in, W. Fitts and W. Hamner, *The Self Concept and Delinquency*, (Nashville: Counselor Recordings and Tests, 1969), pp. 27-52.

¹²cited in Wells and Marwell, op. cit., p.79

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¹⁶V. Raimy, op. cit., p. 14.

¹⁷V. Raimy, op. cit., p. 104.

¹⁸see, V. L. Ryan, C. A. Krall, and W. F. Hodges, "Self Concept Change in Behaviour Modification" *The Journal of Consulting and Clinical Psychology*, Vol. 44, No. 4, (1976), pp. 638-645.

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²⁶J. A. Lefeber, "The Delinquents Self Concept" (unpublished PhD dissertation, University of Southern California, 1965), pp. 138-139.

²⁷source, W. Fitts, *Tennessee Self Concept Scale Bibliography of Research Studies*, (Nashville: Dede Wallace Center, 1973) and *Supplement* (1974)

CHAPTER III

METHODS AND PROCEDURES

INTRODUCTION

The present chapter discusses the methods and procedures used in the study. Information on the sample population and data collection process is provided as well as a description of the community-based social agency selected as the setting for the investigation. The Tennessee Self Concept Scale is described in detail along with some discussion of its reliability and validity. Finally, the chapter concludes with an explanation of some of the statistical procedures used to analyze the data.

THE SAMPLE

The subjects for the present study consisted of one hundred and thirty-nine juveniles who were referred to a community-based program located in Burnaby, British Columbia known as Probation Resources or PURPOSE, between February 1974 and October 1976. Fifty-two subjects were obtained during the 1974 period, forty-three during 1975, and forty-four during 1976. All subjects were twelve through sixteen years of age, with 15.12 years being the mean age. All subjects had completed at least the fifth grade and none were considered to be mentally retarded. Seventy-four of the subjects came from homes with

two parents and sixty-five came from single parent families.

Thirty-four of the subjects had no previous formal court history but had been referred to the program primarily for behavioral problems by social workers. Thirty-four of the subjects had admitted committing a delinquency to the police but had been diverted from formal court proceedings as a result of a Probation Officer's Enquiry. Most of this group were on probation on a voluntary basis. Twenty-eight subjects had previously been the subject of formal court proceedings and had been convicted of committing one delinquency. Forty-three of the subjects had previously been the subject of formal court proceedings on more than one occasion and had been convicted of more than one previous delinquency. The range of offences covered a spectrum, from minor offences such as committing an indecent act, to more serious offences such as theft over two hundred dollars. The most common offence was breaking and entering and theft. As a result of the provincial government's wish to not prosecute status offences such as unmanageability, no status offenders were included in the latter two groups but were represented in the group referred by social workers and individuals referred as a result of a Probation Officer's Enquiry.

THE AGENCY SETTING

The agency selected as the setting for the study is known as Probation Resources or more commonly called

P.U.R.P.O.S.E.¹ (hereafter cited as PURPOSE) and is located in the municipality of Burnaby, British Columbia. The project involves paraprofessional staff working in cooperation with probation officers, social workers, teachers, and parents, in an effort to provide assistance and direction to juveniles designated as needing such help. The program has been part of a fairly comprehensive study conducted with financial assistance from the Federal Department of National Health and Welfare and has been included in several reviews of programs offered for juveniles in British Columbia.² In addition the program has received a fair degree of community support and certain aspects of the program have been adopted in other areas of the province.³ This section is primarily concerned with the program as it existed during its second, third, and fourth years of operation; or the period of the study from February 1974 to October 1976.

Background

PURPOSE was established in January of 1973 under the auspices of a municipal committee known as the Burnaby Family Court Committee. Original funding came from the Federal Government through the Local Initiatives Program (L.I.P.) and later through Opportunities For Youth (O.F.Y.). The B.C. Department of Human Resources initially contributed fifty percent of the program budget in January of 1974 and began funding the entire program in June of 1974. Sponsorship of the program changed in February of 1975 when a non-profit

society known as Fraser Correctional Resources Society was started for that purpose.

Under the original grant application PURPOSE was set up to provide resource assistance to volunteers working with individuals on a one-to-one basis and work with individual probationers who required more time than a volunteer could reasonably be expected to give. In the latter part of 1973, the program was modified as a result of some research that indicated that staff time would be better spent in offering a group-oriented program for selected youth. Consequently, the format of the program changed and participants were soon meeting in groups three times a week for various activities arranged by and with program staff. Since that time the program has continued to work with referrals using a group activity format.

Program Description

PURPOSE is available to youth aged 13-17, who live in the Fraser Region area, and who have been described by the program literature as *asocialized*. While this latter term has not been adequately explained in the program's written material, in practice it has usually been taken to mean what another program describes as: "... youth who through their attitude and behavior indicate a real possibility of some future involvement with the juvenile justice system."⁴

Most participants attend the program on the basis of an informal contract, although some may be directed to attend by a Family Court judge or a probation officer. Average length

of involvement in the program is between three and four months. Data indicates that the average involvement for the recidivist group was 3.68 months and the non-recidivist group was 3.5 months.

Program literature describes the program as consisting of three levels:

1) Attendance Center Level: Participants attend the program three times a week for group activities and individual counselling. The program attempts to involve participants in planning group activities which ideally are to be selected evenly from areas such as recreation, education, vocational training, and community resource involvement. A report presented in February 1975, reveals that an average of five hours is spent in individual counselling and fifty-five hours are spent as a group during a month. Despite the fairly intensive and voluntary nature of the program, statistics show that average attendance is seventy-seven percent. The average group size during the period of this research was seven juveniles, and three groups of boys and one of girls were usually operating at any given time. As mentioned earlier, the average length of time in the program was three and a half months and appeared to be related to fall, spring, and summer time periods.

2) Detached Worker Level: Participants are involved with a counsellor on an individual basis for a period of about six weeks. This level was designed as a follow-through to the attendance level and was seen as a way of reducing a youth's

involvement in the program.

3) Volunteer Sponsor Level: Participants may choose to be involved with a volunteer from the community in a Big Brother type of relationship.

In addition an educational program was added to PURPOSE in March of 1974, when the Burnaby School Board agreed to provide a teacher on a part-time basis. Initially, this component was to be limited to assisting individuals re-enter school and helping them acquire reading and writing skills sufficient to obtain employment. As a result of a request made by the program, the teacher's time was extended and a full-time program was started in January of 1975.

While most of the material on the program mentions the foregoing levels, it would appear that in practice the stages of involvement have been more conceptual than real. For instance, over the time period data was collected for this research almost no individuals were assigned to a volunteer sponsor, although in fairness it should be pointed out that most of the juveniles said they did not want one. Also, the detached level may be seen to be operating for a much longer time period than stated, with most individuals maintaining contact with their counsellor long after formal involvement with the program has terminated. Most of the program emphasis appears to have been placed on the attendance level and with the introduction of an educational program, it has become even more pronounced.

In summary, PURPOSE provides both direct and indirect services to youth referred to the program. Some of the direct services include: individual and group counselling, individual and group activities, tutoring, and assisting youth in dealing with teachers, parents, and authorities. Some of the indirect services include: assisting other agencies in formulating intervention plans, and parents in devising alternate relational models. Most of the counselling is directed at situational variables, such as problems between a youth and his parents or peers; youth with serious psychological difficulties are referred to outside agencies for assistance.

Source of Referrals

Probation officers and the Courts account for the majority of referrals to the program, although referrals are also accepted from social workers, teachers, and in some cases parents. The program is also fairly unique since it is one of the few essentially correctional programs operating in the province that will allow youth to refer themselves. Program staff indicate that such a diversified referral system tends to discourage labelling and encourages interaction between individuals having similar difficulties who are reacting in different ways. Surprisingly, little concern about the fact that a number of non-delinquents are associating with delinquents has been expressed by any of the sources making referrals to the program.

Program Objectives

The objectives of the program as outlined in a program report, are as follows:

1) To help the young person find a meaningful place for himself-herself in the community.

2) To involve the participant in the learning of acceptable social interaction. This process involves an active give and take relationship in the form of instruction, demonstration, practice, and feedback.

3) To expose the participant to a variety of new interests, activities, and human interaction, which will motivate the youth to learn new approaches to behavior.

4) To make youth responsible and accountable to themselves and society for their behavior.

5) To make the program more than a "paper" community intervention program by actually involving the total community in such areas as, the Society itself, advisory committee, resource people, and volunteers.

6) To translate the idea of an integrated service delivery system into a practical, economic, and humanistic reality.

7) To utilize existing community services and structures in fulfilling program objectives and goals rather than establishing a duplication. 5

Service Philosophy

The philosophy underlying the services the program provides may be described as *community intervention*, a term that suggests that social problems in a community are best dealt with in the community itself. This particular agency's attitude is more closely related to an opportunity model and rather than seeing clients as in need of correction or punishment, staff see themselves as offering opportunities and options to participants.

Defining Features

PURPOSE may be seen to have a number of defining

features that are relatively unique in comparison to most offerings to such a target population:

First, client choice appears to play a considerable part in the program. Individuals referred to the program have considerable discretion[?] about whether or not to enter the program and how long to stay.

Second, effort appears to be directed at involving clients in their own rehabilitation through involvement with program planning, thus imparting a sense of belonging and program ownership.

Third, all staff may be classed as paraprofessional, having a fairly diverse educational background, ranging from grade ten completion to some master's work in a completely unrelated field. None of the staff during the research period had ever previously worked with juveniles in a correctional setting.

Fourth, the program accepts referrals from more than one or two government departments and permits referrals from parents and the youth themselves.

Finally, it would appear that the program takes a trial-and-error approach in working with referrals rather than operating in a standardized manner. Given the current "state of the art" in working with delinquents,⁶ such a heuristic approach may prove to be justified provided that funding agencies accept such a rationale.

PROCEDURES

In its original conception, this research was designed to generate thesis data, but also to generate information that might have practical utility for program management. As a consequence, it was determined that the test selected would be administered to all program clients as part of the normal intake process. This not only avoided stigmatization of individuals included in the research study but has also generated a larger data base for further study and comparison.

In the initial implementation all testing was administered by this investigator; however, over time program counsellors were trained to administer the test in those cases where it was inconvenient for the researcher to do so. In either circumstance, procedures were followed as outlined in the test manual, and total testing time was usually 15 to 20 minutes. The test was usually administered to the juvenile three or four days after the juvenile had become involved in the program and some relationship had been established with program staff. The primary reasons given to participants as to why it was necessary to complete the test were: a need to collect data for presentation to sources who fund the program, and to help the program better meet their personal needs. Participants were assured that test results would be kept confidential and they were encouraged to be open and honest in their replies. Over the study period only two individuals, both of whom indicated fear of psychological instruments, refused to

complete the test. In neither instance did this affect their acceptance into the program.

Individuals selected for inclusion in this investigation were all male participants who completed the foregoing procedure during the period February 1, 1974 to October 31, 1976. Program records of individuals meeting the criteria were checked against juvenile offence records maintained at the four juvenile probation offices in Fraser Region.

An eighteen month follow-up on each of the selected subjects was conducted and delinquent offence data was obtained once again from the probation offices in the Region. Such a follow-up period was deemed necessary in light of data reported by Manning (1974), who found that the time span between reported occurrences vary as a function of: 1) age at the time of first occurrence, 2) nature of the first occurrence, and 3) disposition of the first occurrence.⁷ He found, for instance, that juveniles who first occurrence was at fifteen that the mean interval for latter offences was 3.2 months. In the case of juveniles who had committed their first offence at a younger age, the interval was considerably longer; for example, youth who committed their first offence when they were eight had a mean interval of 17.4 months for latter offences. Thus, in order to permit sufficient time for collection of offence data that would account for age and offence variation, an eighteen month follow-up was instituted.

THE MEASURING INSTRUMENT

As we noted in our review of the literature, the number of self-concept scales and indices is vast and varied, and any selection of an instrument for a study is to some extent arbitrary. In selecting an instrument for this investigation, consideration was given to reliability, validity, norms, availability, convenience of administration and scoring, and interpretability of results. In light of these considerations, the *Tennessee Self Concept Scale (TSCS)*, developed by William Fitts (1965), was deemed to be acceptable for the current study. Other factors that made it suitable were: 1) the items included in the scale could easily be understood by the subjects, 2) the statements are clear and cover a large range of specific self-concept dimensional areas, and 3) the scale can be administered in one brief session, making it suitable for studying populations with short attention spans and interest. This section provides information on the TSCS as a measurement of self-concept.

Description

The Tennessee Self Concept Scale is comprised of one hundred self-descriptive statements which the subject uses to describe himself. Of the hundred items, ninety measure the self-concept and are equally divided into forty-five positive and forty-five negative statements in an attempt to minimize a negative response orientation. These ninety items, when

placed in order, form a matrix with three rows and five columns. The rows are concerned with how a subject describes himself. Row one of this matrix contains items which pertain to an individual's identity. Row two deals with self-satisfaction, or how the individual accepts himself. Row three is concerned with the individual's perception of his own behaviour and focuses on how he acts or what he does.

The five columns are the frames of reference that a person uses to describe himself. These referents are as follows:

Column A - Physical Self

Column B - Moral Ethical Self

Column C - Sense of Personal Worth

Column D - Sense of Worth as a Family Member

Column E - Social Self

The remaining ten test items are utilized solely for the self-criticism scale, which is actually taken from the L scale of the Minnesota Multiphasic Personality Inventory and gives a measure of truthfulness of response.

The sum of the three rows equals the sum of the five columns and results in a P score, or the subject's total self-esteem, and is the most important scale in the inventory.

In addition, variability or V scores are calculated for each column and row, excluding the self-criticism scores. The total variability throughout the instrument is used to determine unity and integration of Self.

The instrument also provides data concerning another

aspect of self perception through a summary score of the way one distributes his answers across the five available choices in responding to items on the scale. This provides a distribution score (D).

The Scale has a paper and pencil form, and is self-scoring in the sense that all answers are carboned through to the scoring matrix.

According to research conducted by Fitts (1965), the scale is usable with subjects twelve years of age or higher who have achieved at least the sixth grade reading level. He also reports that the test is applicable to a whole range of psychological adjustment, from healthy well-adjusted people to psychotic patients. Dependent on the subject's deliberation, testing time for the scale ranges from ten to twenty minutes, with a reported mean time of thirteen minutes.⁸

Although the scale is available in two forms, a counselling form and a clinical and research form, both using the same test booklet and test items, the researcher chose the counselling form, since it could be shown to the participants in a way that they could understand; the clinical and research form was deemed to have more applicability to in depth psychopathological investigation. Appendix I provides a detailed explanation of the meaning of test subscales and Appendix II provides samples of specific test questions.

Development of the Scale

Beginning in 1955, Fitts, then a research psychologist

with the Tennessee Department of Mental Health, recognized the need for a better self-concept scale. As a result, he devoted the next ten years to the development and validation of the TSCS. He describes the test's development in the following quotation:

In the original development of the scale the first step was to compile a large pool of data concerning self-descriptive items. The original pool of items was derived from a number of other concept measures including those developed by: Balster (1956), Engel (1956), and Taylor (1953). Items were derived also from written self descriptions by patients and non-patients. After considerable study, a phenomenological system was developed for classifying items on the basis of what they themselves were saying. These evolved into the two dimensional, 3 X 5 scheme employed on the score sheet. This part of the scale contained 90 items, equally divided as to positive and negative items. The remaining 10 items comprise the self criticism score which were taken from the MMPI. 9

The next stage of the scale's development came in 1965 when, with the TSCS established on a limited scale, other researchers had the opportunity to use it in the field.

Norms

TSCS norms were originally developed from a broad sample of 626 subjects from geographical locations throughout the United States, with age ranges from 12 to 68. This norming group included equal representations of males and females; educational levels from the sixth grade to PhD were represented.

The normative data for all major test scores are reported in Appendix III.

In the original manual, Fitts (1965) cites data collected

by Suby (1962), Gividen (1959), and Hall (1964), to show that no need exists to establish separate norms by age, race, or sex. However, in the years since the publication of the TSCS a number of studies have found different results. In general while most of the studies substantiate the view that there is a high degree of consistency of samples within a particular age group¹⁰, socio-economic level¹¹, and educational grade level¹², some differences on these variables have been found using selected samples. These findings imply such variables should be controlled in studies using the test. Control in the present study was achieved by restricting the research to a specific subset of the adolescent population, living in the same general area, with similar educational backgrounds. Individual fluctuations are assumed to be equally offsetting.

Reliability and Validity

Fitts (1965) suggests evidence of the reliability of the TSCS is found in the similarity of profile patterns found through repeated measures of the same individuals over long periods of time.¹³ Cronbach (1960) suggests a more extensive approach, and posits that a test may be validated on the basis of: 1) predictive validity - the ability of a measure to predict future performance in some area based on the knowledge of test results; 2) concurrent validity - correlation determined by obtaining estimates of performance from at least two instruments at the same time; 3) content validity - require test items to be representative of subject matter the test is designed to measure; and

4) construct validity - the concepts of the test may be tested on identified personality disordered groups to determine if the groups are homogenous and show the same characteristics.

Examining each of these categories in turn, we find:

i) Predictive Validity - Fitts (1972) cites studies by Smith (1969) and Frankel (1970) that indicate the TSCS's predictive validity. Smith (1969) in a study with visually impaired college students found that initial self-concept, as measured by the TSCS, was a key in predicting whether subjects persisted or dropped out of training. Similar results are reported by Frankel (1970), who found that when the TSCS was introduced as a criterion in selecting paratroops for Israel that the number of drop-outs reduced. In addition, Black (1976) notes that in the original development of the test, scores were used to predict personality changes under particular conditions. Results indicated that 765 of 1110 score changes had been successfully predicted, constituting additional evidence for the validity of the instrument.

ii) Concurrent Validity - Christian (1969) correlated nine TSCS measures with five indices of physical fitness; in three of the five cases the measures were correlated with the physical self score.¹⁴ However, Wylie (1974) notes that information regarding the TSCS and other measures are not too encouraging. She cites a study by Wayne (1963) who found a .68 correlation between the TSCS and Izard's Self Rating Positive Affect Scale, and Rentz and White's (1967) study that found

only one out of twenty-four measures loaded significantly on the first factor of the TSCS. In contrast, Black (1976) reports that the TSCS is highly correlated to items in the Edwards Personal Preference Schedule.

iii) Content Validity - In the development of the scale, an item was retained only if there was unanimous agreement by eight selected judges that it was assigned to the correct category. Thus, the requirement that the test items be logically meaningful was met in the original test construction.

iv) Construct Validity - George (1970) asked subjects to respond to the test in terms of what they would like to be rather than the way they were. Analysis showed that self-criticism dropped one standard deviation and defensive positiveness increased by the same amount. This result suggests that test scores are sensitive to distortion. In addition to the George (1970) study, a number of other studies are reviewed by Fitts (1972) and Fitts and Thompson (1972) that all demonstrate that similar groups classified by deviant psychological behaviour all show similar TSCS characteristics and profiles.

In factor analytic studies of the TSCS, researchers such as Vacchiano and Strauss (1968) and Vincent (1968) are cited by Black (1976) as generally supporting the construct validity of the TSCS.

DATA ANALYSIS

The statistical techniques used in the analysis of the

data involved both nonparametric and parametric approaches. Specific statistical tools employed included: means, standard deviations, comparative t-tests, and discriminant function analysis.

T-tests were utilized for comparison between the recidivist and non-recidivist groups on specific dimensions of self-concept as measured by the TSCS.

Discriminant function analysis permitted the TSCS to be considered according to those variables on the test that would result in maximal separation (in relation to their pooled standard deviations) of the recidivist and non-recidivist groups. Predictive classification results were obtained from the procedure and are reported in Chapter IV.

In recognition of a controversy in the literature concerning the appropriateness of the use of such significance tests, actual significance levels are reported in the results and a two-tailed versus a one-tailed level of significance was required for acceptance of hypotheses.¹⁵

Data was coded and the Statistical Package for Social Sciences computer program was utilized for both the comparative t-tests and the discriminant function analysis.

In addition to comparing the TSCS data for the total population of recidivists and non-recidivists, independent analyses of the two groups were made according to the four original type of delinquent offenders referred to the program: Social Worker referrals, Probation Officer Enquiry referrals,

delinquent first offenders, and delinquents convicted of more than one previous offence.

The .05 level of significance was chosen as the region of rejection for the null hypothesis.

SUMMARY

In this chapter the methods and procedures used in the study have been presented. The study population was examined and the social agency selected as the setting for the study was described. The procedures used in collecting the data were outlined and an overview of the Tennessee Self Concept Scale was provided. Finally, the statistical techniques employed in the analysis of the data were noted.

The results of the research are presented in the following chapter.

REFERENCES TO CHAPTER III

¹P.U.R.P.O.S.E. : Probationary Understanding and Realignment to Purposefully Oriented Societal Endeavors.

²see for instance, W. Zarchikoff and J. Crew, *A Descriptive and Evaluative Assessment of Youth Attendance Centres in British Columbia: An Alternative to Incarceration*, Grant Number 25169-1-55, Federal Department of National Health and Welfare, Office of Welfare Grants Directorate, Ottawa, 1975; also, T. Lajeunesse, "Diversion - A Survey", Justice Planning and Research, Department of the Attorney-General, Victoria, B.C., undated; also, "Local Diversion Programs", Training and Education Group, Justice Development Commission, Department of the Attorney-General, Victoria, B.C., undated.

³see, W. Zarchikoff and J. Crew, *ibid.*

⁴*Final Report: Cluster Evaluation of Five Delinquency Diversion Projects*, California Taxpayers' Association, Sacramento, California, 1975, p. 25.

⁵*FCRS - A Report*, Fraser Correctional Resources Society, Burnaby, British Columbia, 1975, p. 12.

⁶for a recent review see for instance, D. Mann, *Intervening with Convicted Serious Juvenile Offenders*, (Washington: Government Printing Office, 1976).

⁷cited in J. Byles, *Final Report: The Juvenile Services Project*, Grant Number 2555-55-1, Office of Welfare Grants Directorate, Department of National Health and Welfare, Ottawa, 1977.

⁸W. Fitts, *Manual for the Tennessee Self Concept Scale*, (Nashville: Counselor Recordings and Tests, 1965) p. 1.

⁹W. Fitts, *ibid.*, p. 1.

¹⁰A number of studies have reported on TSCS age normative data. For example, Wendland (1968), Godfrey (1971), Walton (1971) and Lossner (1971) all found self-concept profiles consistent among high school students. Other studies conducted on: college students, Wagner and Fitts (1969), Tedesco (1969); adults, Fitts and Stewart (1969); elderly people, Postema (1970); have found that while self-concept scores appear to increase with age, this is accounted for by a proportionate decrease in scores on the self-criticism scale. All of these aforementioned studies may be found in W. Thompson, *Correlates of the Self-Concept*, (Nashville: Counselor Recordings and Tests, 1972).

¹¹Fitts (1971, 1972) and Thompson (1972) cite studies conducted by Gordon (1966), Mitchell (1967), Morgan (1970), Pearson (1969), and Renbarger (1969) that conclude lower socio-economic groups tend to have significantly lower self-concepts than higher socio-economic groups, increasing as a function of age and perceived disadvantage. One major failing of their research is the fact that subjects tended to be chosen from high density low standard housing projects, possibly influencing the outcome.

¹²Fitts (1972) cites studies conducted by Atchison (1958), Deitche (1959), Gay (1966), and Warner (1969) that have concluded that changes in TSCS scores as a function of educational level and status is likely due to differences in age and maturational levels. He concludes that there is still no definitive answer regarding the relationship between self-concept and educational level.

¹³For the reader who wishes to consider the issue of the test's reliability in more detail, W. Fitts et al., *The Self-Concept and Self Actualization*, (Nashville: Counselor Recordings and Tests, 1971) pp. 46-66, is particularly recommended.

¹⁴cited in, W. Fitts, *The Self Concept and Psychopathology* Dede Wallace Center, Monograph 4, (Nashville: Counselor Recordings and Tests, 1972) p. 116.

¹⁵For a more detailed consideration of the controversy concerning tests of significance, see for example, D. E. Morrison and R. E. Henkel, eds., *The Significance Test Controversy*, (Chicago: Aldine Pub. Co., 1970), and P. E. Meehl, "... Sir Ronald and the Slow Progress of Soft Psychology", *Journal of Consulting and Clinical Psychology*, 46 (4), pp. 806-834. Morrison and Henkel basically question the general utility of the tests and suggest they provide neither necessary nor sufficient scope nor the type of knowledge that basic social science research requires. In terms of significance levels, they encourage researchers to report levels of probability of sampling error rather than using arbitrary levels. In the same work, an article by D. Bakan (1967) reviews the test of significance in psychological research and suggests the test has limited appropriateness. He argues that statistical procedures should not be allowed to become substitutes instead of aids to thought, and that researchers should return to common sense. He concludes that psychologists must get on with the business of generating appropriate hypotheses, rather than conducting any number of investigations where we have every reason to suppose what the results will be before we begin. In his article, Meehl makes similar comments and as a prescription offers consistency testing, a procedure he outlines as: *Wherever possible two or more nonredundant estimates of the...*

same theoretical quantity should be made, because multiple approximations ...are always more valuable, provided that methods of setting permissible tolerances exist...". However, he admits that the possibility of using consistency tests is problematic and exact procedures have yet to be derived.

CHAPTER IV

RESULTS

INTRODUCTION

The present chapter presents an analysis of results of the study's data. For clarity, findings are reported in two separate sections: a) Part One examines differences between recidivists and non-recidivists on dimensions of self-concept as measured by the TSCS; b) Part Two demonstrates the effectiveness of the TSCS in being able to differentiate the two groups with application of discriminant function analysis.

Part One deals with the major findings involved in testing the hypotheses earlier stated in Chapter I. Data is organized in order of each of the hypotheses being tested, and separate corresponding tables and figures are given to illustrate the results. Comparisons are between 67 PURPOSE clients who were classified as recidivists during the follow-up period and 72 who were not. In addition to comparing the TSCS data for the foregoing population of recidivists and non-recidivists, independent between-group analyses are shown for each of the four types of juveniles differentiated in Chapter III: Social Worker or Ministry of Human Resources referrals; Probation Officer Enquiry referrals; delinquent first offenders; and delinquents convicted of more than one previous offence.

Part Two reports the results of an application of a

discriminant function analysis on the TSCS data generated for the recidivist and non-recidivist groups. As in Part One, independent between-group analyses are also shown for the four types of juveniles originally referred to the program: Human Resources referrals (hereafter cited as HR), Probation Officer Enquiry referrals (hereafter cited as POE), delinquent first offenders (hereafter cited as J.D.1st), and delinquents convicted of more than one previous offence (hereafter cited as J.D. X 2). Discriminant scores as well as results from a classification analysis using the derived coefficients are shown. Such an approach permits us to examine the effectiveness of the TSCS in differentiating between recidivist and non-recidivist program clients and may allow predictive classification criteria to be developed for further testing.

The conclusions and recommendations resulting from the study are discussed in Chapter V.

PART ONE

The TSCS data for the recidivist and non-recidivist clients are reported in Table 1 and shown graphically in Figure 2. The more specific aspects of the data, together with the relevant hypotheses, are presented below:

Hypothesis 1. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their overall concept of self.

As Table 1 shows, non-recidivists obtained a mean score

of 312.31 with a standard deviation of 35.92, compared to the recidivists who obtained a mean score of 300.13 and a standard deviation of 31.39. Analysis resulted in a t-score of 2.12 being obtained, which was significant at the .05 level. Thus, hypothesis 1 was sustained.

Hypothesis 2. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their basic identity of self.

As Table 1 shows, non-recidivists obtained a mean score of 108.44 with a standard deviation of 13.03, compared to the recidivists who obtained a mean score of 105.43 and a standard deviation of 13.68. Analysis resulted in a t-score of 1.33, which was judged not to be significant at the .05 level. Thus, while the mean of the non-recidivists was higher than the recidivists, this difference was not sufficient to support the hypothesis.

Hypothesis 3. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their self-satisfaction with their basic identity.

As the Table 1, R2 scores show, non-recidivists obtained a mean score of 105.82 with a standard deviation of 15.65, compared to the recidivists who obtained a mean score of 99.48 and a standard deviation of 13.85. Analysis resulted in a t-score of 2.53 being obtained, which was significant at the .05 level. Thus, the third hypothesis was sustained.

TABLE 1

SUMMARY TSCS DATA FOR COMPARISON OF
DELINQUENT RECIDIVISTS (N=67) VERSUS NON-RECIDIVISTS (N=72)

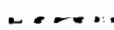
Variable	Non-Recidivists		Recidivists		t-score	prob. 2-tail	sign.
	Mean	S.D.	Mean	S.D.			
TP	312.31	35.92	300.13	31.92	2.12	0.036	.05
R1	108.44	13.03	105.43	13.68	1.33	0.187	N.S.
R2	105.82	15.65	99.48	13.65	2.53	0.013	.05
R3	98.01	12.34	95.12	10.35	1.49	0.138	N.S.
Col. A	66.44	8.43	62.79	9.99	2.33	0.021	.05
Col. B	58.62	7.52	56.70	7.99	1.46	0.146	N.S.
Col. C	61.85	9.06	59.88	9.46	1.25	0.213	N.S.
Col. D	61.47	10.83	56.97	10.73	2.46	0.015	.05
Col. E	63.19	8.23	59.91	9.33	2.19	0.029	.05
SC	36.00	5.60	36.07	5.48	-0.08	0.937	N.S.
D	103.80	33.53	96.24	27.80	1.44	0.151	N.S.
TV	46.51	11.85	47.05	11.11	-0.27	0.786	N.S.
RV	20.68	5.77	20.44	5.94	0.23	0.815	N.S.
CV	25.69	7.75	26.58	7.06	-0.70	0.482	N.S.


Tennessee Self Concept Scale

PROFILE SHEET

Counseling Form

NAME		SCHOOL GRADE	SEX	AGE	DATE	TIME STARTED	TIME FINISHED	TOTAL TIME							
T SCORE	PERCENTILE SCORES	SELF CRITICISM	POSITIVE SCORES (SELF ESTEEM)					VARIABILITY			D	T SCORE			
			TOTAL	ROW 1	ROW 2	ROW 3	COL. A	COL. B	COL. C	COL. D			COL. E	TOTAL	COL. TOTAL
50	99.99	50	450	150		150	90							90	90
60	99.9		440		150			90						80	
70	99		430		145	145				85				70	
			420		140									60	
			410	145	135	140				85				50	
	95		400		130	135	85	85						40	
	90	45	390	140	125	130				75				30	
60	80		380		120		80	80						25	60
			370	135	115	125				75				20	
	70	40	360		110	120	75							15	
	60		350	130	105	115				70				10	
50	50	35	340	125	100	110	70							5	50
	40	30	330	120	95	105	65	65						5	
	30	25	320	115	90	100	60	60						5	
40	20	20	310	110	85	95	55	55						5	40
	10	15	300	105	80	90	50	50						5	
	5	10	290	100	75	85	45	45						5	
30	1	5	280	95	70	80	40	40						5	30
		20	270	90	65	75	35	35						5	
		15	260	85	60	70	30	30						5	
		10	250	80	55	65	25	25						5	
		5	240	75	50	60	20	20						5	
20	0.1	5	230	70	45	55	15	15						5	
		5	220	65	40	50	10	10						5	
		5	210	60	35	45	5	5						5	
		5	200	55	30	40	5	5						5	
		5	190	50	25	35	5	5						5	
	0.01	5	180	45	20	30	5	5						5	
10		10	170	40	15	25	5	5						5	
		10	160	35	10	20	5	5						5	
		10	150	30	5	15	5	5						5	

Delinquent Recidivists (N = 67) 

Delinquent Non-Recids. (N = 72) 

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WILLIAM H. FITZ 1968

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 BOX 6184, ACKLEN STA.
 NASHVILLE, TENN. 37212

Hypothesis 4. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their concept of their behaviour.

As the Table 1, R3 scores show, non-recidivists obtained a mean score of 98.01 with a standard deviation of 12.34, compared to the recidivists who obtained a mean score of 95.12 and a standard deviation of 10.35. Analysis resulted in a t-score of 1.49 which was judged to not be significant at the .05 level. Thus, while the mean of the non-recidivists was higher than the recidivists, this difference was not sufficient to support the hypothesis.

Hypothesis 5. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their concept of their physical self.

As the Table 1, Col. A scores show, non-recidivists obtained a mean score of 66.44 with a standard deviation of 8.43, compared to the recidivists who obtained a mean score of 62.79 and a standard deviation of 9.99. Analysis resulted in a t-score of 2.33, which was judged as significant at the .05 level. Thus, hypothesis 5 was sustained.

Hypothesis 6. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their concept of their morals and ethics.

As the Table 1, Col. B scores show, non-recidivists obtained a mean score of 58.62 with a standard deviation of 7.52, compared to the recidivists who obtained a mean score of

56.70 and a standard deviation of 7.99. Analysis resulted in a t-score of 1.46 which was judged as not significant at the .05 level. Thus, while the mean of the non-recidivists was higher than the recidivists, this difference was not sufficient to support the hypothesis.

Hypothesis 7. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their sense of personal worth.

As the Table 1, Col. C scores show, non-recidivists obtained a mean score of 61.85 with a standard deviation of 9.06, compared to the recidivists who obtained a mean score of 59.88 and a standard deviation of 9.46. Analysis resulted in a t-score of 1.25, which was judged as not significant at the .05 level. Thus, while the mean of the non-recidivists was higher than the recidivists, this difference was not sufficient to support the hypothesis.

Hypothesis 8. - Non-recidivists will obtain significantly higher mean scores than recidivists when classified by their concept of their social self.

As the Table 1, Col. D scores show, non-recidivists obtained a mean score of 61.47 with a standard deviation of 10.83, compared to the recidivists who obtained a mean score of 56.97 and a standard deviation of 10.73. Analysis resulted in a t-score of 2.46, which was significant at the .05 level. Thus, hypothesis 8 was sustained.

Hypothesis 9. - Non-recidivists will obtain significantly higher

mean scores than recidivists when classified by their concept of their family self.

As the Table 1, Col. E scores show, non-recidivists obtained a mean score of 63.19 with a standard deviation of 8.23, compared to the recidivists who obtained a mean score of 59.91 and a standard deviation of 9.33. Analysis resulted in a t-score of 2.19, which was significant at the .05 level. Thus, hypothesis 9 was sustained.

It is pertinent to note that no significant differences were found between the two groups on the test dimensions of: truthfulness of response (SC); definiteness of self (D); or the variability scores (TV, RV, CV).

Figure 2 shows SC scores are actually within the range of the normal population and that subjects tended to be quite honest. Low scores would have indicated defensiveness and may have artificially elevated test scores, making comparisons between the groups difficult.

The similarity of the D scores for both groups shows that subjects distributed answers across choice items of the scale in approximately the same manner. While the low scores indicated that subjects were not too definite in the way that they viewed themselves, results obtained were not extreme enough to suggest that subjects were attempting to avoid committing themselves by employing "3" responses on the answer sheet.

Variability scores for both groups fell within the limits for the normal population and suggests that subjects

were consistent from one area of self-perception to another. High scores would have meant that the groups were quite variable in the latter respect.

These results suggest that the self-concept profile of the non-recidivist group is different from the recidivist group. However, as figure 2 illustrates, this difference exists in terms of profile level rather than the profile patterns of the two groups. Such a finding suggests that essentially the two groups have basically the same characteristics and is consistent with other similar findings by Fitts (1973).

On all test measures the results were in the hypothesized direction with the non-recidivists obtaining the higher mean score on all nine subscales. Significance was obtained of five of the subscales with the greatest difference between the groups being found on: self-satisfaction with basic identity (R1) and family self (Col. D). This indicates that non-recidivists felt more satisfied with their perceptions of their identity and felt more worth as a family member. Implications of these results will be elaborated in Chapter V.

As mentioned earlier in the chapter, in an attempt to further investigate self-concept differences between the non-recidivist and recidivist groups, four further analyses were conducted between the groups, corresponding to the four types of juveniles that were originally referred to the program: Human Resources referrals, Probation Officer Enquiry referrals, delinquent first offenders, and delinquents convicted of more

than one previous delinquency. Such an approach has a clear logical basis, since it allows for consideration of differential effects of previous contact with the juvenile justice system. In addition, continuing experience with the TSCS suggests that some differences exist between such groups. For example, Lefeber (1965) found significant differences between first offenders and recidivists; Fitts and Hamner (1969) report similar results for parole violators and first offenders; and Hamner et al. (1973) found significant differences between juveniles assigned to probation and institutions. In the same study, they also found a pattern similarity between juveniles designated as heading for school dropout and juvenile delinquent profiles. More recently, Bliss (1977) found significant differences between delinquents on probation and delinquents in detention.

Consideration of self-concept differences between the four types of offenders included in the study was beyond the scope of the current analysis, since the central focus is on TSCS differences between recidivists and non-recidivists. However, it is recognized that such an investigation using matched groups would be worthy of future investigations.

The TSCS data for Human Resources recidivists (N = 14) and non-recidivists (N = 20) is reported in Table 2 and is shown graphically in Figure 3.

As the data indicates, no significant differences were found between the groups on any of the test's dimensions

selected for study. The results were in the hypothesized direction on only five of the test's subscales: TP, R2, R3, Col. B, and Col. D. The results were in the opposite direction on the remaining four subscales: R1, Col. A, Col. C, and Col. E.

No significant differences were found between the two groups on the test's dimensions of: truthfulness of response (SC), definiteness of self (D), or the variability scores (TV, RV, CV).

These results suggest that there are no significant self-concept differences between HR recidivists and HR non-recidivists. While the two groups appear to display a similarity of profile patterns, as illustrated in figure 3, certainly more variance is evident than displayed for the larger sample as earlier illustrated in figure 2. Interestingly, the variable that came closest to achieving significance, self-satisfaction with basic identity (R2), was the most significant variable for the larger sample.

Whether these results are generalizable on the basis of such a small test sample is doubtful since individuals selected to attend the program could not be considered to be representative of aggregate Human Resource clients. Experience on the part of program staff indicates that these type of referrals tended to be high profile individuals, in the sense that considerable acting out behavior would have to occur for their social worker to notice them.

TABLE 2

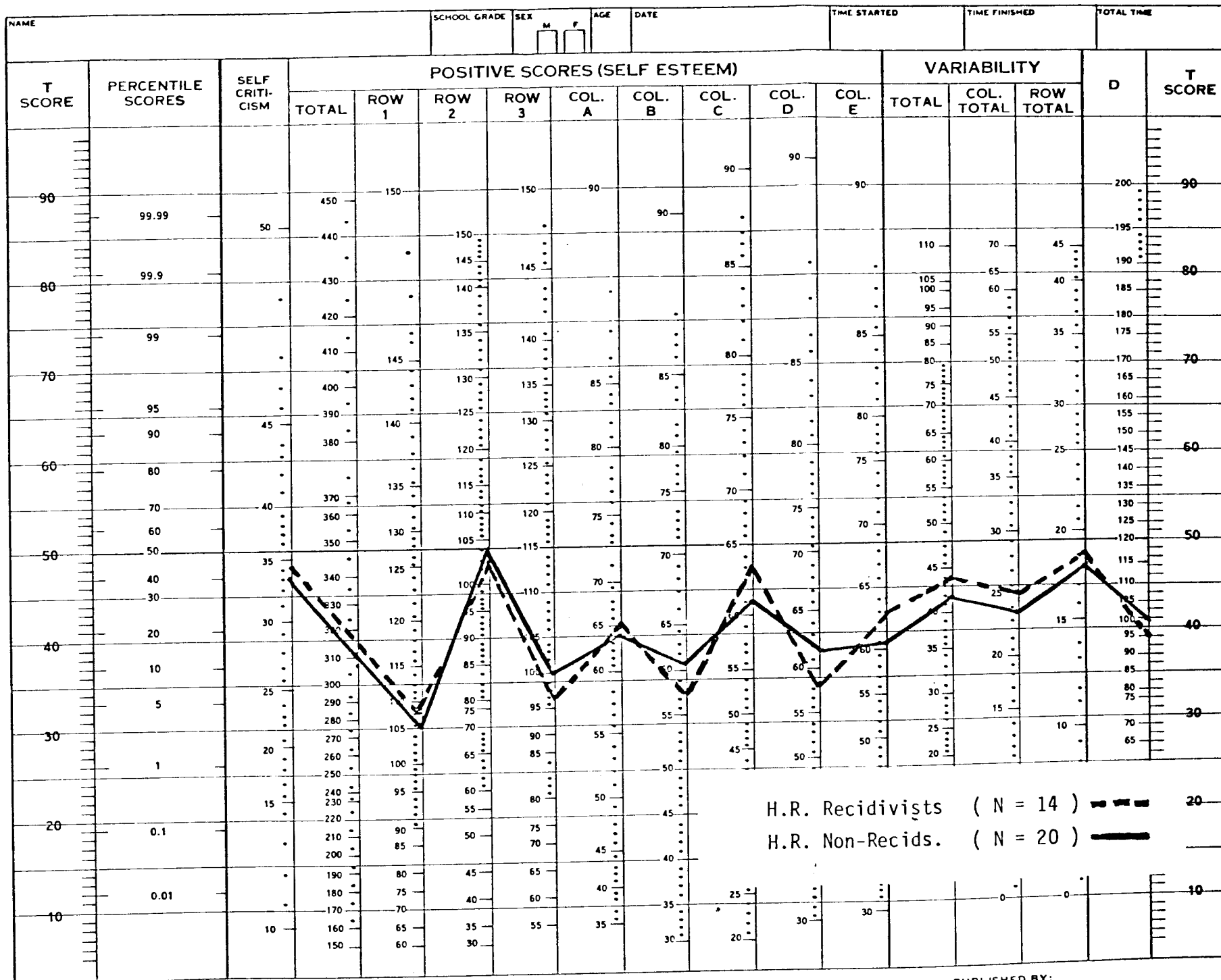
SUMMARY TSCS DATA FOR COMPARISON OF
HR RECIDIVISTS (N=14) VERSUS HR NON-RECIDIVISTS (N=20)

Variable	Non-Recidivists		Recidivists		t-score	prob. 2-tail	sign.
	Mean	S.D.	Mean	S.D.			
TP	311.30	36.91	308.29	34.63	0.24	0.812	N.S.
R1	106.95	14.79	107.21	13.51	-0.05	0.958	N.S.
R2	104.40	13.85	103.29	13.29	0.23	0.816	N.S.
R3	100.35	14.06	97.79	11.86	0.56	0.581	N.S.
Col. A	64.75	9.85	65.57	10.33	-0.23	0.816	N.S.
Col. B	61.10	6.94	57.50	5.35	1.63	0.113	N.S.
Col. C	60.70	7.84	63.00	8.85	-0.80	0.430	N.S.
Col. D	61.65	9.64	58.67	8.26	0.97	0.339	N.S.
Col. E	61.10	8.41	63.64	8.24	-0.87	0.338	N.S.
SC	33.40	5.07	34.36	6.88	-0.47	0.643	N.S.
D	100.20	38.49	95.57	36.48	0.35	0.727	N.S.
TV	42.0	13.33	44.50	15.28	-0.51	0.616	N.S.
RV	18.35	5.53	19.43	7.22	-0.49	0.625	N.S.
CV	28.65	8.74	25.07	8.73	-0.47	0.644	N.S.

Tennessee Self Concept Scale

PROFILE SHEET

Counseling Form



The TSCS data for Probation Officer Enquiry recidivists (N = 12) and non-recidivists (N = 22) is reported in Table 3 and is shown graphically in Figure 4.

As the data indicates, highly significant differences were found between the two groups on seven of the nine subscales used in the study. The results were in the hypothesized direction on all test measures with non-recidivists obtaining the higher mean score in each case. Significance was achieved on the following subscales: TP - level of overall esteem, R1 - identity of self, R2 - level of self-satisfaction, R3 - perception of behavior, Col. A - physical self, Col. C - sense of personal worth, and Col. E - social self. Significant differences were not found on the dimensions of: Col. B - moral-ethical self, and Col. D - family self.

No significant differences were found between the two groups on the test's dimensions of: truthfulness of response (SC), definiteness of self (D), or the variability scores (TV, RV, CV).

These results suggest that POE non-recidivists have much healthier self-concepts than POE recidivists. They also have a much better sense of identity, were much more satisfied with their perceived identity, and perceived their general behavior in a much more positive light. Their sense of personal worth was much higher than the recidivist group and they possessed a greater number as well as sense of personal social skills.

TABLE 3

SUMMARY TSCS DATA FOR COMPARISON OF
POE RECIDIVISTS (N=12) VERSUS POE NON-RECIDIVISISTS (N=22)


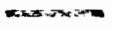
Variable	Non-Recidivists		Recidivists		t-score	prob. 2-tail	sign.
	Mean	S.D.	Mean	S.D.			
TP	320.45	35.75	280.33	28.72	3.30	0.002	.01
R1	111.41	11.53	100.17	17.61	2.25	0.031	.05
R2	109.32	16.48	90.33	8.11	3.73	0.001	.01
R3	99.73	11.57	90.17	11.38	2.32	0.027	.05
Col. A	68.18	6.78	59.50	6.13	3.69	0.001	.01
Col. B	58.41	8.09	55.17	6.48	1.19	0.242	N.S.
Col. C	64.86	9.95	53.33	6.54	3.60	0.001	.01
Col. D	62.82	11.89	56.25	9.25	1.66	0.108	N.S.
Col. E	66.59	8.69	58.08	7.68	2.84	0.008	.01
SC	35.36	5.75	37.50	6.13	-1.01	0.319	N.S.
D	99.68	31.83	94.00	22.30	0.55	0.588	N.S.
TV	49.68	10.47	48.58	11.80	0.28	0.782	N.S.
RV	22.45	5.95	19.25	6.02	1.49	0.145	N.S.
CV	*26.77	5.80	29.25	7.65	-1.06	0.296	N.S.

Tennessee Self Concept Scale

PROFILE SHEET

Counseling Form

NAME		SCHOOL GRADE	SEX	AGE	DATE	TIME STARTED	TIME FINISHED	TOTAL TIME											
T SCORE	PERCENTILE SCORES	SELF CRITICISM	POSITIVE SCORES (SELF ESTEEM)					VARIABILITY			D	T SCORE							
			TOTAL	ROW 1	ROW 2	ROW 3	COL. A	COL. B	COL. C	COL. D			COL. E	TOTAL	COL. TOTAL	ROW TOTAL			
90	99.99	50	450	150	150	150	90	90	90	90	90	90	90	90	90	90	90	90	
80	99.9		440		145	145				85			110	70	45			195	80
70	99		430		140	140							105	65	40			190	70
60	95	45	420		135	140							100	60	35			185	60
50	90	40	410	145	130	135	85	85					95	55	30			180	50
40	80	35	400		125	130							90	50	25			175	40
30	70	30	390	140	120	125	80	80					85	45	20			170	30
20	60	25	380		115	120							80	40	15			165	20
10	50	20	370	135	110	115	75	75					75	35	10			160	10
	40	15	360	130	105	110	70	70					70	30	5			155	
	30	10	350	125	100	105	65	65					65	25	0			150	
	20	5	340	120	95	100	60	60					60	20	0			145	
	10	0	330	115	90	95	55	55					55	15	0			140	
	5	0	320	110	85	90	50	50					50	10	0			135	
	0	0	310	105	80	85	45	45					45	5	0			130	
	0	0	300	100	75	80	40	40					40	0	0			125	
	0	0	290	95	70	75	35	35					35	0	0			120	
	0	0	280	90	65	70	30	30					30	0	0			115	
	0	0	270	85	60	65	25	25					25	0	0			110	
	0	0	260	80	55	60	20	20					20	0	0			105	
	0	0	250	75	50	55	15	15					15	0	0			100	
	0	0	240	70	45	50	10	10					10	0	0			95	
	0	0	230	65	40	45	5	5					5	0	0			90	
	0	0	220	60	35	40	0	0					0	0	0			85	
	0	0	210	55	30	35	0	0					0	0	0			80	
	0	0	200	50	25	30	0	0					0	0	0			75	
	0	0	190	45	20	25	0	0					0	0	0			70	
	0	0	180	40	15	20	0	0					0	0	0			65	
	0	0	170	35	10	15	0	0					0	0	0			60	
	0	0	160	30	5	10	0	0					0	0	0			55	
	0	0	150	25	0	5	0	0					0	0	0			50	

P.O.E. Recidivists (N = 12)  20
P.O.E. Non-Recids (N = 22)  20

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NASHVILLE, TENN. 37212

According to Joplin et al. (1973) it is rare to find as many significant differences as these results show. Five of the scores were at the $p < .01$ level, two were at the $p < .05$ level, and even though the remaining two scores were not significant, the magnitude of the difference was quite high and in the hypothesized direction.

While generalized conclusions from such a limited sample might be undesirable, one possible explanation for the considerable difference between the two groups may lie in a suggestion by theorists such as Abrahamsen (1944) and Warren (1971) that a number of delinquents are *momentary offenders* or *situational offenders* and will probably only commit one detected offence and then stop. Their theory suggests that the original offence was perhaps a product of an irresistible opportunity that may involve a person in an illegal activity. This view is probably borne out by the fact that court proceedings were not instituted after a probation officer's investigation. Further support is also illustrated in figure 4 which shows that while there is some pattern similarity between the groups, certainly more variance is evident than displayed for the larger sample earlier illustrated in figure 2. Such a finding is significant since it indicates that the two groups may have very different characteristics rather than just differing in profile level. However, any definite conclusion should await further investigation.

The TSCS data for delinquent first offender recidivists

(N = 10) and non-recidivists (N = 18) is reported in Table 4 and is shown graphically in Figure 5.

As the data indicates, a significant difference was found between the two groups on only one subscale, Col. C - personal self. The surprising aspect of this finding is the fact that this difference was in the opposite direction from the original hypothesis; recidivists obtained a higher mean score than non-recidivists. This tendency of findings to be in the opposite direction from the hypothesis is also found on six of the other subscales, although at a very insignificant level. The results were in the hypothesized direction only on two subscales: R3 - perceptions of behavior, and Col. D - family self, although once again at an insignificant level.

No significant differences were found between the two groups on the test's dimensions of: truthfulness of response (SC), definiteness of self (D), or the variability scores (TV, RV, CV).

While certainly no one explanation for these results can be given, several different alternatives should be considered. First, the difference in standard deviation scores may indicate that the non-recidivist group was not representative of non-recidivists in general, as a greater variance in scores were reported than for the recidivist group. Consequently, a larger and more representative sample might yield different results. Second, the Col. C result may be erroneous and really no significant differences exist between the two

TABLE 4

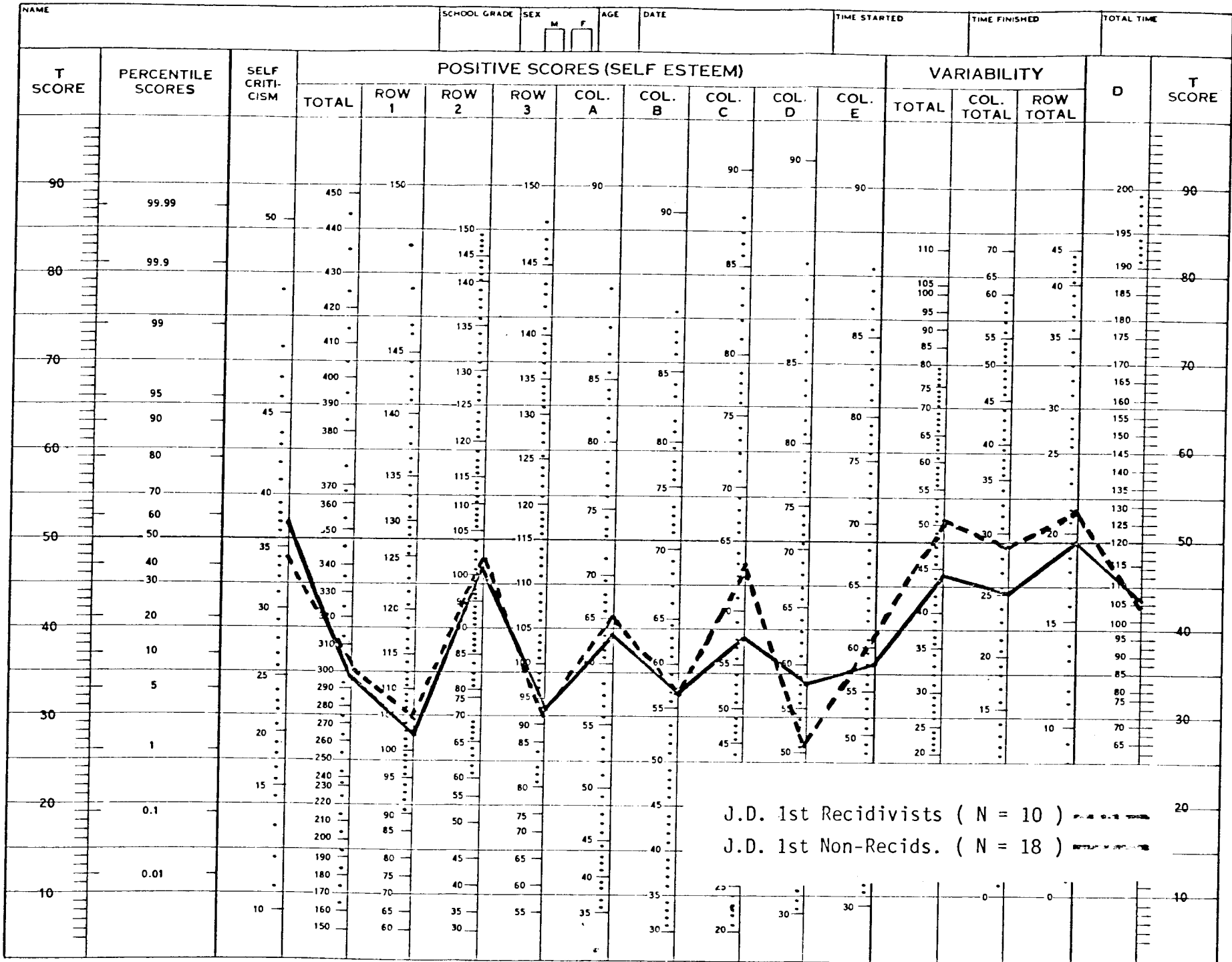
SUMMARY TSCS DATA FOR COMPARISON OF
 JD 1st RECIDIVISTS (N=10) VERSUS JD 1st NON-RECIDIVISTS (N=18)

Variable	Non-Recidivists		Recidivists		t-score	prob. 2-tail	sign.
	Mean	S.D.	Mean	S.D.			
TP	297.44	32.58	298.20	21.97	-0.07	0.948	N.S.
R1	103.44	12.97	104.70	8.91	-0.27	0.788	N.S.
R2	101.06	14.69	102.20	14.79	-0.20	0.845	N.S.
R3	92.94	11.16	90.80	6.61	0.55	0.585	N.S.
Col. A	64.56	7.67	65.10	8.02	-0.18	0.861	N.S.
Col. B	56.67	8.57	56.90	5.76	-0.08	0.939	N.S.
Col. C	58.11	6.58	63.20	5.81	-2.04	0.052	barely .05
Col. D	58.66	10.37	51.10	8.64	1.96	0.061	N.S.
Col. E	58.83	5.94	60.90	5.04	-1.01	0.324	N.S.
SC	37.44	4.78	34.40	4.99	1.59	0.124	N.S.
D	105.39	32.61	104.30	19.55	0.10	0.924	N.S.
TV	44.67	10.39	51.60	5.29	-1.96	0.061	N.S.
RV	19.50	3.94	22.30	4.99	-1.64	0.114	N.S.
CV	25.17	8.93	29.30	2.71	-1.42	0.168	N.S.

Tennessee Self Concept Scale

PROFILE SHEET

Counseling Form



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groups. Third, first offenders who become recidivists versus those who do not scored higher on Col. C - sense of personal worth. This may indicate that such youth consider their previous delinquent involvement to be accidental, and as a result are not open to personal counselling. All three of the foregoing possibilities warrant further investigation.

The TSCS data for delinquent recidivists convicted of committing more than one previous delinquency (N = 31) and non-recidivists convicted of committing more than one previous delinquency (N = 12) is reported in Table 5 and is shown graphically in Figure 6.

As the data indicates, a significant difference was found between the two groups on only one subscale, Col. E - social self. The results were in the hypothesized direction on all of the test's subscales, with the non-recidivists obtaining the higher mean score in each case.

No significant differences were found between the two groups on the test's dimensions of: truthfulness of response (SC) or the variability scores (TV, RV, CV). However, a significant difference was found between the two groups on the dimension of definiteness of self (D) subscale. This finding, when taken in conjunction with the Col. E difference, suggests that delinquents who were non-recidivists had better developed social skills and a more definite view of themselves. Non-recidivists may be seen as better equipped to resist negative peer pressure and to develop other positive relationships.

TABLE 5

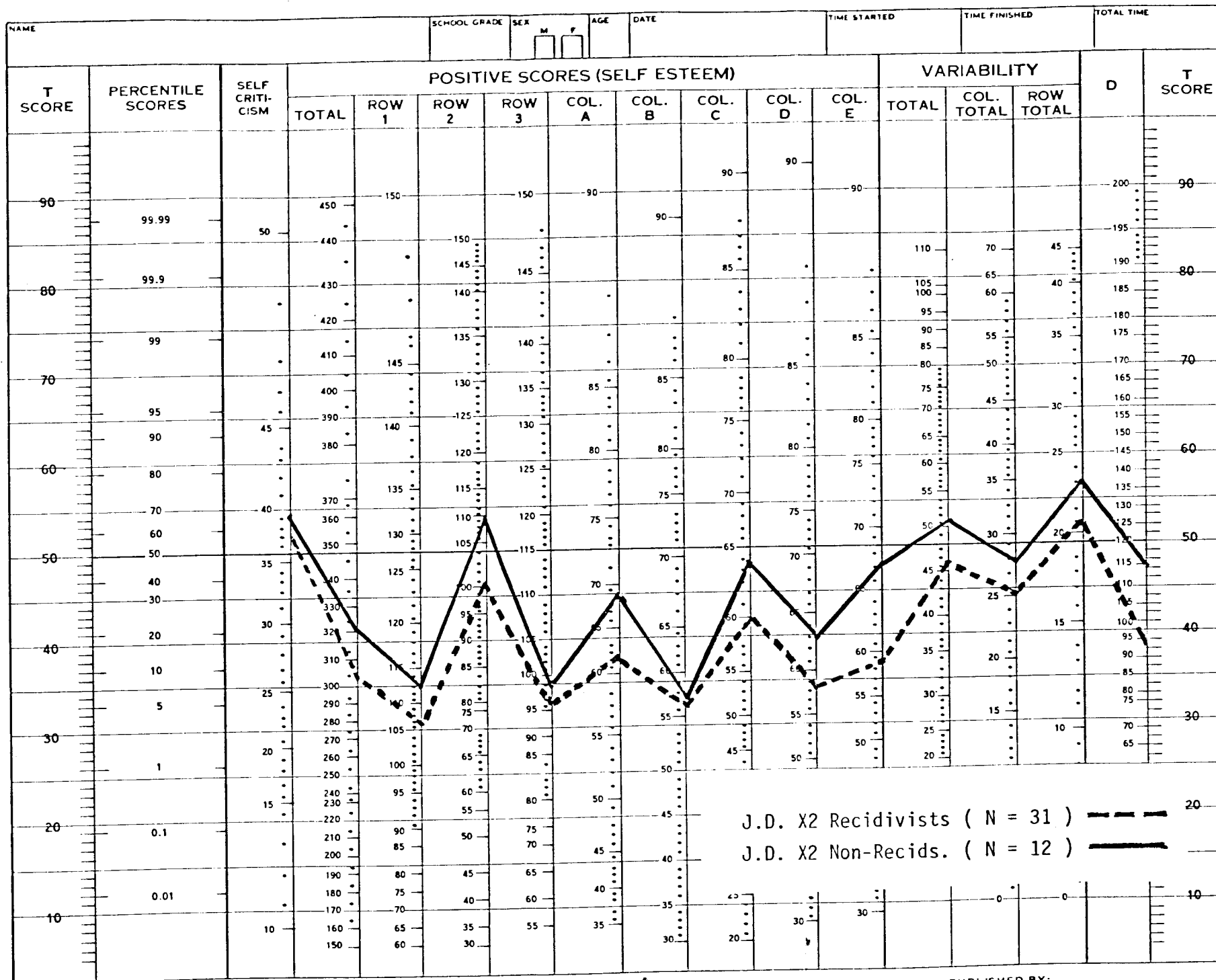
SUMMARY TSCS DATA FOR COMPARISON OF
 JD X2 RECIDIVISTS (N=31) VERSUS JD X2 NON-RECIDIVISTS (N=12)

Variable	Non-Recidivists		Recidivists		t-score	prob. 2-tail	sign.
	Mean	S.D.	Mean	S.D.			
TP	321.33	36.22	304.55	31.61	1.50	0.141	N.S.
R1	113.00	10.93	106.90	13.41	1.40	0.169	N.S.
R2	108.92	17.94	100.42	14.56	1.61	0.115	N.S.
R3	98.58	11.65	97.23	9.48	0.39	0.695	N.S.
Col. A	68.92	9.43	62.07	11.41	1.85	0.072	N.S.
Col. B	57.83	5.02	56.87	10.08	0.31	0.755	N.S.
Col. C	63.83	10.94	59.94	10.57	1.07	0.289	N.S.
Col. D	62.92	11.87	58.42	12.45	1.08	0.288	N.S.
Col. E	67.00	6.99	58.61	11.09	2.43	0.020	N.S.
SC	39.33	5.55	36.84	4.53	1.52	0.136	N.S.
D	115.00	30.39	94.81	28.31	2.06	0.046	N.S.
TV	51.00	11.76	46.13	9.97	1.37	0.179	N.S.
RV	23.08	6.74	20.77	5.65	1.14	0.261	N.S.
CV	27.92	7.20	25.36	6.70	1.10	0.277	N.S.

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The profile pattern similarity illustrated in Figure 6 suggests that basically the two groups have the same characteristics, although differences in profile level are also evident. Thus, while the magnitude of the differences between the groups was not conclusive, it may be clearly seen that all the results are in the hypothesized direction. It may be reasonably suggested that with a larger sample the results would have been significant. Once again further investigations appear to be warranted.

PART TWO

Part Two presents the results of the computations using the discriminant function statistic comparing the recidivist and non-recidivist groups and the four delineated referral types, as discussed earlier in the chapter.

In reaching the final discriminant function equation a TSCS variable was considered for selection only if its partial multivariate F ratio was larger than 1.

In order to check the adequacy of the derived discriminant functions and in doing so indicate the effectiveness of the TSCS in being able to discriminate between recidivist and non-recidivist program clients, the study sample is classified to see how many clients are correctly classified by the variables selected. The procedure used was part of a subprogram of the SPSS computer program and involved the separate linear combination of discriminating variables for each group. The manual

states that these produce a probability of membership in the respective group, and the client is assigned to the group with the highest probability.

In using the discriminant scores as a classification tool, the goal is to attain results that would represent an improvement over predictions made without the test. Thus, it is meaningful to discuss the degree of improved accuracy brought about by using the derived test functions. In making such a comparison, knowledge of the proportion of participants who remained non-recidivists was used for base rate comparisons. For example, we know that 51.80% were not recidivists; thus, the net gain in using the test would be the percentage of improvement over 51.80%.

In applying the discriminant function statistic to the total data reported for the Recidivists ($N = 67$) and Non-recidivists ($N = 72$), four TSCS subscales (hereafter cited as variables) met the established criteria for inclusion in the equation. The selected variables, as well as their F values for inclusion and discriminant coefficients, are reported in Table 6.

Discriminant scores were calculated for both groups and are presented as two separate frequency distributions in Figure 7. The calculated group centroid for the non-recidivists was -0.27791 and for the recidivist group, 0.29865 . The non-recidivist scores ranged from -2.953 to 1.480 , and the recidivists from -1.655 to 2.801 , indicating considerable overlap between the groups. When the point biserial Pearson correlation

was calculated, an r value of 0.289 was obtained, demonstrating only a small separation between the two groups, which was found to be significant at the .001 level.

For classification purposes a cutoff score was computed to be 0.041666. Results from the classification analysis are presented in Table 7. Examination indicates that the derived coefficients were able to correctly predict non-recidivist membership with 56.09% accuracy and recidivist membership with 62.07% accuracy. The computed overall accuracy through use of the derived classification function coefficients was 59.71%.

In comparing the net advantage of using test score classification using discriminant function analysis versus random assignment on the basis of population size, a simple comparison between the proportion of individuals who became recidivists or remained non-recidivists and the aforementioned computed overall accuracy score may be made. While such an approach may be weak, since it assumes that accuracy by chance will be equal to sample size rather than the two possible outcomes (50/50 chance), this weakness may be compensated by the fact that in this study the discriminant classification has been weakened, as the functions were derived from a 'best-fit' of existing data rather than by comparison with a new sample.

We know from the data that 48.20% of the clients became recidivists and 51.80% did not. Thus, the net advantage of using test score classification is calculated to be a relatively small 7.91%.

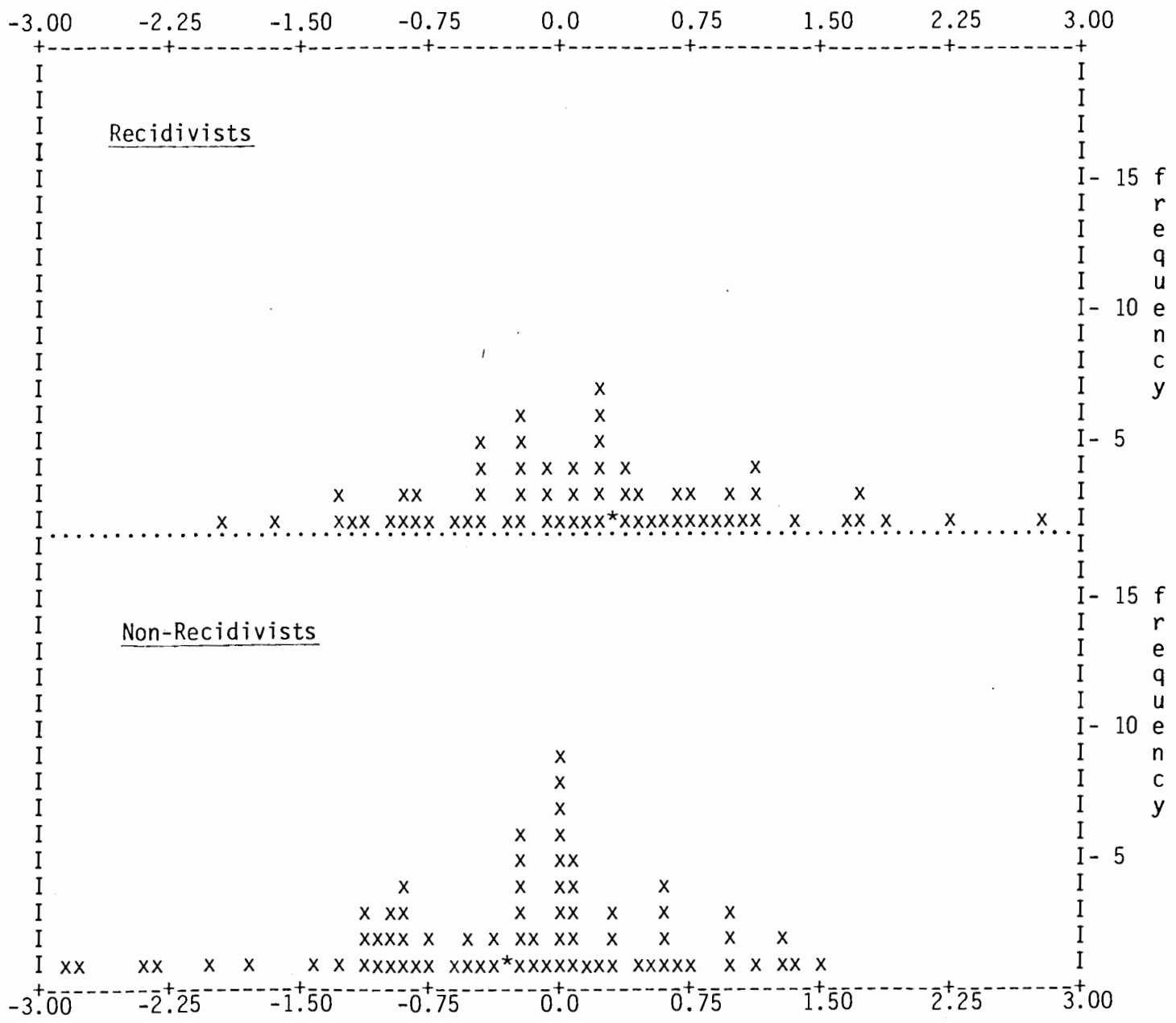
TABLE 6
 SUMMARY DISCRIMINANT RESULTS
 FOR RECIDIVIST (N=67) AND NON-RECIDIVIST (N=72) DATA

Variable	F Value	Standardized Discriminant Function Coefficients
R 2	3.11505	-0.71159
Col.D	1.66587	0.92206
Col.C	1.17760	-0.52287
Col.E	2.85479	-0.70092

TABLE 7
 PREDICTION RESULTS FOR
 RECIDIVIST AND NON-RECIDIVIST GROUPS

Actual Group	N	Predicted Group Group 1	Group Membership Group 2	% Grouped Correctly
Group 1 - Non-Recidivists	72	41	31	56.9%
Group 2 - Recidivists	67	25	42	62.7%
% of "Grouped" Cases Correctly Classified :				<u>59.71%</u>

FIGURE 7
 FREQUENCY DISTRIBUTION OF RECIDIVIST AND NON-
 RECIDIVIST GROUPS DISCRIMINANT FUNCTION SCORES



* denotes a group centroid

In applying the discriminant function statistic to the TSCS data reported for HR recidivists (N = 14) and HR non-recidivists (N = 20), two of the test variables met the established criteria for inclusion in the equation. The selected variables as well as their F values are reported in Table 8.

Discriminant scores were calculated for both groups and are presented as two separate frequency distributions in Figure 8. The calculated mean for the non-recidivist group was -0.38503 and for the recidivist group was 0.55005. The non-recidivists' scores ranged from -2.030 to 0.824 and the recidivists' from -0.816 to 2.949. When the point biserial Pearson correlation was calculated, an r value of 0.467 was obtained, demonstrating moderate separation between the groups, which was significant at the .01 level.

For classification purposes, a cutoff score of .0833 was established. Classification results from the analysis are presented in Table 9. Examination indicates that the derived coefficients were able to correctly predict non-recidivist membership with 75% accuracy and recidivists with 64.3% accuracy, for an overall accuracy of 70.59%.

Our data indicates that 41.18% of the HR clients became recidivists and 58.82% did not. Thus, the percentage degree of improved accuracy brought about by using the test versus assignment by sample size is 70.59% compared to 58.82%, or a difference of 11.77%. This latter figure represents an improvement of 3.86% over the results for the larger sample.

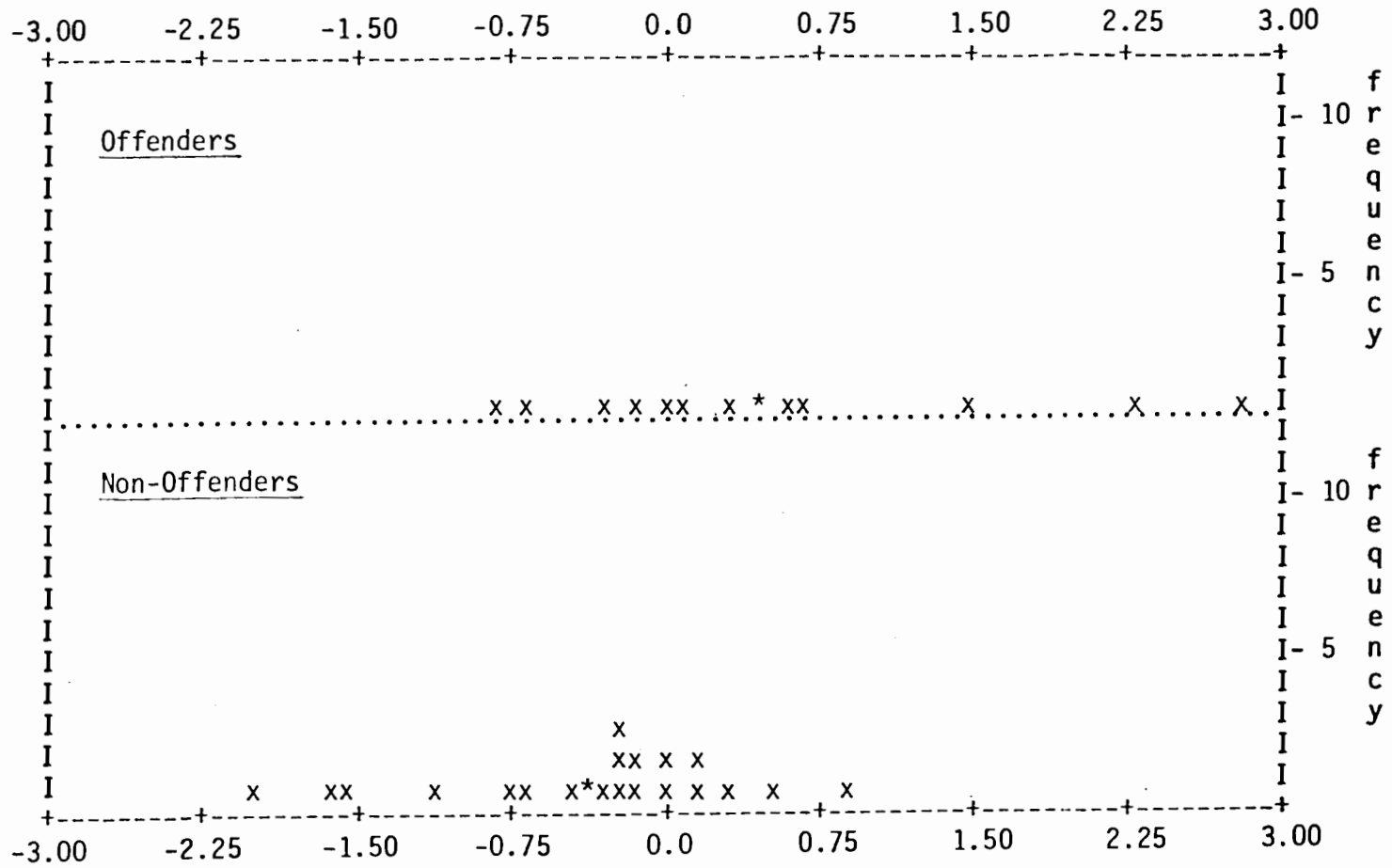
TABLE 8
 SUMMARY DISCRIMINANT RESULTS
 FOR HR RECIDIVIST (N=14) AND HR NON-RECIDIVIST (N=20) DATA

Variable	F Value	Standardized Discriminant Function Coefficients
Col. B	2.65772	-1.18300
Col. C	5.61268	0.99848

TABLE 9
 PREDICTION RESULTS FOR
 HR RECIDIVIST AND NON-RECIDIVIST GROUPS

Actual Group	N	Predicted Group Group 1	Membership Group 2	% Grouped Correctly
Group 1 - Non-Offenders	20	15	5	75.0%
Group 2 - Offenders	14	5	9	64.3%
% of "Grouped" Cases Correctly Classified : <u>70.59%</u>				

FIGURE 8
 FREQUENCY DISTRIBUTION OF HR RECIDIVIST AND
 NON-RECIDIVIST GROUPS DISCRIMINANT FUNCTION SCORES



* denotes a group centroid

In applying the discriminant function statistic to the TSCS data reported for POE recidivists ($N = 12$) and POE non-recidivists ($N = 22$), five of the test variables met the criteria for inclusion in the equation. The selected variables as well as their F values are reported in Table 10.

Discriminant scores were calculated for both groups and are presented as two separate frequency distributions in Figure 9. The calculated mean for the non-recidivist group was -0.5351 and for the recidivist group was 0.98928 . The non-recidivist scores ranged from -1.368 to 0.628 and the recidivists' from -0.804 to 2.247 , indicating some overlap between the groups. When the point biserial Pearson correlation was calculated an r value of 0.742 was obtained, demonstrating substantial separation between the two groups, which was significant at the $.01$ level.

For classification purposes a cutoff score of 0.1666 was established. Classification results from the analysis are presented in Table 11. Examination shows the derived coefficients were able to correctly predict non-recidivist membership with 86.9% accuracy and recidivists with 91.7% accuracy, for a substantial overall accuracy of 88.24% .

Our data indicates that 35.29% of the POE clients became recidivists and 64.71% did not. Thus, the percentage of improved accuracy brought about by using the test versus assignment by sample size is 88.24% compared to 64.71% , or a difference of 23.53% . This latter figure represents an

TABLE 10
SUMMARY DISCRIMINANT RESULTS
FOR POE RECIDIVIST (N=12) AND POE NON-RECIDIVIST (N=22) DATA

Variable	F Value	Standardized Discriminant Function Coefficients
R 2	10.61856	-1.06109
D	6.18775	0.78253
Col.A	3.92749	-0.41274
Col.D	2.80557	0.41745
Col.E	1.13237	-0.27790

TABLE 11
PREDICTION RESULTS FOR
POE RECIDIVIST AND NON-RECIDIVIST GROUPS

Actual Group	N	Predicted Group Group 1	Group Membership Group 2	% Grouped Correctly
Group 1 - Non-Offenders	22	19	3	86.4%
Group 2 - Offenders	12	1	11	91.7%
% of "Grouped" Cases Correctly Classified : <u>88.24%</u>				

improvement of 15.65% over the results for the larger sample.

In applying the discriminant function statistic to the TSCS data reported for JD 1st recidivists (N = 10) and JD 1st non-recidivists (N = 18), six of the test variables met the criteria for inclusion in the equation. The selected variables as well as their F values are reported in Table 12.

Discriminant scores were calculated for both groups and are presented as two separate frequency distributions in Figure 10. The calculated mean for the recidivist group was -1.00554 and for the non-recidivists' was 0.55863. The recidivist scores ranged from -2.052 to 0.216 and the non-recidivists -0.963 to 1.311, indicating some overlap between the groups. When the point biserial Pearson correlation was calculated, an r value of 0.763 was obtained, showing substantial separation between the two groups, significant at the .01 level.

For classification purposes a cutoff score of -0.2084 was established. Classification results from the analysis are presented in Table 13. Examination shows the derived coefficients were able to correctly predict non-recidivist membership with 88.9% accuracy and recidivists with 80.0% accuracy, for a substantial overall accuracy of 85.71%.

Our data indicates that 35.72% of the JD 1st clients became recidivists and 64.28% did not. Thus, the percentage of improved accuracy brought about by using the test versus assignment by sample size is 85.71% compared to 64.28% or a difference of 21.43%. This latter figure represents an

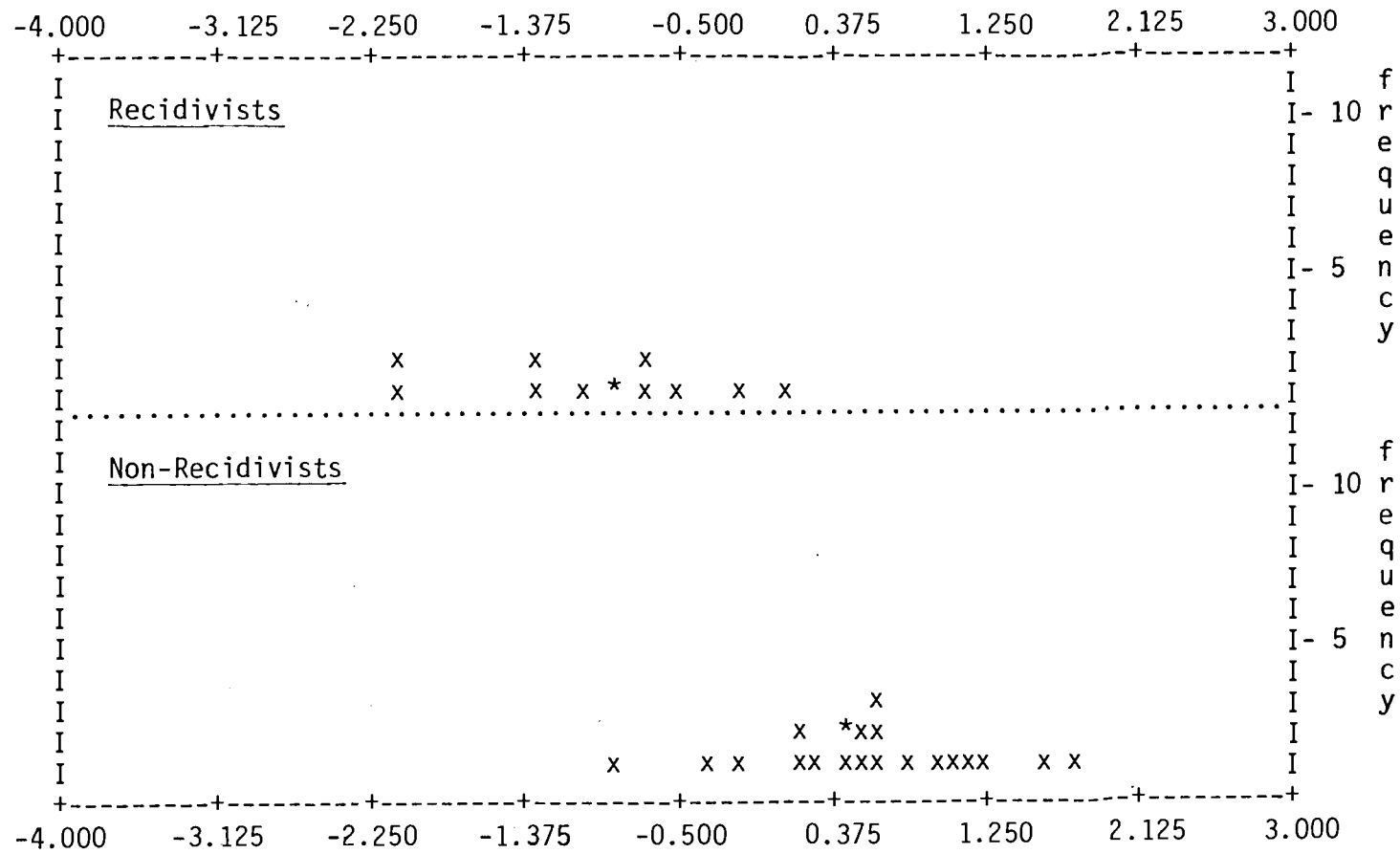
TABLE 12
 SUMMARY DISCRIMINANT RESULTS
 FOR JD 1ST RECIDIVIST (N=10) AND NON-RECIDIVIST (N=18) DATA

Variable	F Value	Standardized Discriminant Function Coefficients
Col.C	4.16478	-1.82380
SC	1.42108	0.84279
R 3	1.91352	1.53523
R 2	2.72011	1.76348
Col.A	1.91457	-0.76186
Col.D	2.86629	-0.80763

TABLE 13
 PREDICTION RESULTS FOR
 JD 1ST RECIDIVIST AND NON-RECIDIVIST GROUPS

Actual Group	N	Predicted Group Group 1	Membership Group 2	% Grouped Correctly
Group 1 - Non-Recidivists	18	16	2	88.9%
Group 2 Recidivists	10	2	8	80.0%
% of "Grouped" Cases Correctly Classified :				<u>85.71%</u>

FIGURE 10
 FREQUENCY DISTRIBUTION OF JD 1ST RECIDIVIST AND
 NON-RECIDIVIST GROUPS DISCRIMINANT FUNCTION SCORES



* denotes a group centroid

improvement of 13.52% over the results for the larger sample.

In applying the discriminant function statistic to the TSCS data reported for JD X2 recidivists (N = 31) and JD X 2 non-recidivists (N = 12), two of the test variables met the criteria for inclusion in the equation. The selected variables as well as their F values are reported in Table 14.

Discriminant scores were calculated for both groups and are presented as two separate frequency distributions in Figure 11. The calculated mean for the recidivist group was -0.26921 and for the non-recidivists' was 0.69547. The recidivists scores ranged from -2.019 to 1.310 and the non-recidivists from -0.680 to 2.131, indicating substantial overlap between the two groups. When the point biserial Pearson correlation was calculated, an r value of 0.438 was obtained, showing moderate separation of the two groups, significant at the .01 level.

For classification purposes a cutoff score of 0.20726 was established. Classification results from the analysis are presented in Table 15. Examination shows the derived coefficients were able to correctly predict non-recidivist membership with 83.3% accuracy and recidivists with 67.7% accuracy, for an overall accuracy of 72.09%.

Our data indicates that 72.09% of the JD X2 clients became recidivists and 27.91% did not. Thus, no improved accuracy would be brought about by using the derived function versus random assignment, since both were equal.

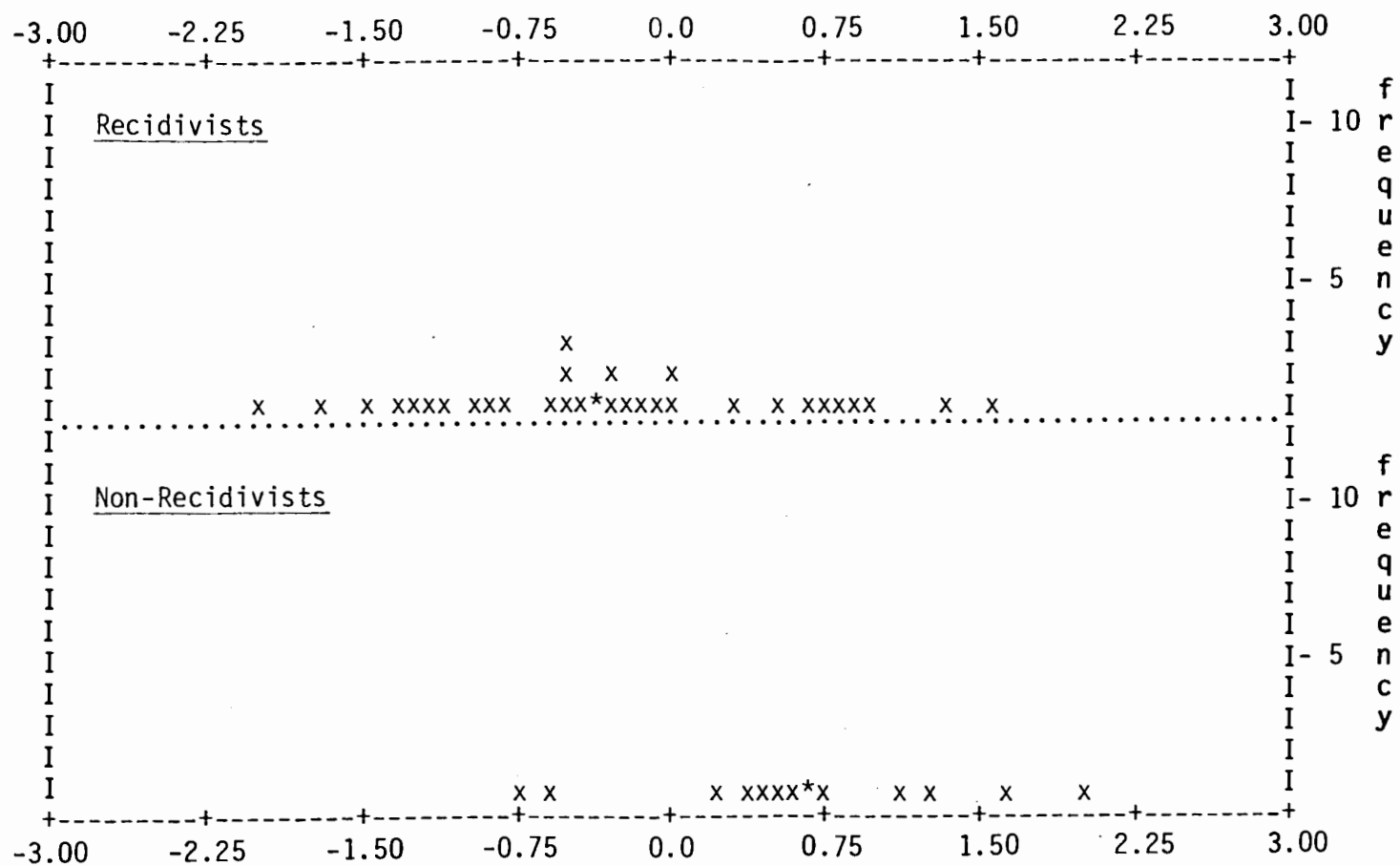
TABLE 14
 SUMMARY DISCRIMINANT RESULTS
 FOR JD X2 RECIDIVIST (N=31) AND NON-RECIDIVIST (N=12) DATA

Variable	F Value	Standardized Discriminant Function Coefficients
Col.B	5.89947	-0.79323
Col.E	3.26310	1.34416

TABLE 15
 PREDICTION RESULTS FOR
 JD X2 RECIDIVIST AND NON-RECIDIVIST GROUPS

Actual Group	N	Predicted Group Membership		% Grouped Correctly
		Group 1	Group 2	
Group 1 - Non-Recidivists	12	10	2	83.3%
Group 2 - Recidivists	31	10	21	67.7%
% of "Grouped" Cases Correctly Classified : <u>72.09%</u>				

FIGURE 11
 FREQUENCY DISTRIBUTION OF JD X2 RECIDIVIST AND
 NON-RECIDIVIST GROUPS DISCRIMINANT FUNCTION SCORES



* denotes a group centroid

SUMMARY

In this chapter, the results and an analysis of the research data has been presented.

Part One of the chapter dealt with major findings involved in testing the hypotheses stated in Chapter I. In addition to comparing TSCS data for the overall population of recidivists and non-recidivists, the hypotheses were further examined according to the four types of juveniles that were referred to the program. In each case the statistical techniques employed in the analysis were identical.

Part Two reported the results from an application of discriminant function analysis on the TSCS test data reported for the recidivist and non-recidivist groups. As in part one, independent analyses were also conducted according to the four types of offenders that were referred to the program. Discriminant scores and classification information was reported for each of the groups and the results of a comparison with random classification assignment were also shown.

The conclusions, recommendations, and implications for further research are presented in Chapter V.

CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter presents a general overview of the study and discusses some of its implications. Initially, a summary of the research and relevant findings is provided. This is followed by a discussion of some of the conclusions that may be made from the work. Finally, the chapter concludes with recommendations that others may wish to consider in conducting further research in the area.

SUMMARY

The study was designed to investigate whether significant differences in self-concept exist between juveniles who are referred to a community social agency who later become recidivists versus those who do not. A recidivist was defined as a juvenile who committed an adjudicated offence or had a Probation Officer's Enquiry conducted on them within a period of eighteen months from their initial referral.

The review of the literature indicated that a number of studies had found significant differences in self-concept between subgroups of delinquents as well as between delinquents and non-delinquents. However, it was noted that most of the studies made comparisons on the basis of intergroup differences at one point in time rather than employing a before-after

research design testing a homogeneous group and making comparisons at a later date. Consequently, it was noted that causal inference has been difficult and the question of whether negative self-concept precedes or follows initial and subsequent labelling of delinquents, is still largely open. It was concluded that research employing a before-after design might be beneficial in providing further data to answer the question as well as indicate the characteristics of juveniles who are likely to benefit from such a programme. In addition, the research was designed to explore the Tennessee Self Concept Scale's possible utility as a classification instrument for community social agency programmes.

The sample used in the study consisted of 139 boys who were referred to a juvenile social agency, located in Burnaby, British Columbia, known as PURPOSE, during the period from February 1974 to October 1976. The sample contained 34 juveniles with no previous court history but who had been referred by social workers because of behavioural problems; 34 who had admitted committing a delinquency but as a result of a Probation Officer's Enquiry had never had court proceedings instituted against them; 28 delinquent first offenders, and 43 delinquents who had been convicted of more than one previous delinquency.

The main instrument of the study was the Tennessee Self Concept Scale which was administered to all of the subjects as part of the normal intake process in the programme. An

eighteen month follow-up on each of the subjects was conducted. Delinquent offence data was obtained from court records maintained in the four juvenile probation offices in the area.

The specific hypothesis was that clients who commit an adjudicated offence or had a POE conducted on them during the follow-up period differ in initial self-concept from those who did not. It was predicted that program recidivists would have a more negative self-concept than non-recidivists. In other words, the position was taken that negative self-concept precedes initial and subsequent labelling of delinquents.

The differences between recidivist and non-recidivist test scores were compared using a t-score and discriminant function analysis. In order to further test the hypotheses and in recognition of Fitt's (1973) observation that large groups may obscure sub-group differences, outcome comparisons were conducted on four subgroups of referrals differentiated on the basis of the degree of their formal court records.

The study produced two major groups of findings: (1) a comparison of self-concept differences between program recidivists and non-recidivists on the TSCS; and (2) discriminant function comparisons between the two groups and subsequent classification predictions from the data.

In the first analysis, the study showed that significant differences in self-concept exist between juveniles who committed an adjudicated offence or had a POE conducted on them during an eighteen month follow-up versus those who didn't.

The differences in mean scores between the two groups were all in the hypothesized direction with non-recidivists obtaining higher scores on all of the selected test variables. Comparative t-tests earlier reported in Table 1, indicate that these differences are significant at the .05 level, or better, on five of the nine test subscales. Non-recidivists:

1. Had a higher overall self-concept as indicated by the significant difference attained on the "Total Positive" subscale;
2. Were more satisfied with their perceived identity as indicated by the significant difference attained on the "Self-Satisfaction" subscale;
3. Had a more positive view of their personal appearance and health as indicated by the significant difference attained on the "Physical Self" subscale;
4. Felt more worth as a family member as indicated by the significant difference attained on the "Family Self" subscale;
5. Felt they possessed more developed social skills as indicated by the significant difference attained on the "Social Self" subscale.

The second analysis, using discriminant function analysis, revealed that the TSCS may be used to differentiate, at least on a limited basis, between clients who are likely to become recidivists and those who won't. An r value of 0.289 was obtained from the data analysis which demonstrates only a small separation between the two client groups. This is further confirmed by frequency distributions earlier illustrated in Figure 7 and the classification analysis earlier reported in Table 7. Figures indicate that the derived coefficients were only able to correctly predict group membership with an overall accuracy of 59.71%. This figure only

represents a 7.91% improvement over classification by sample size, which was discussed earlier in Chapter IV.

In applying the two analyses to the data reported for the two groups according to which of the four original client groups a subject came from, markedly different results are obtained:

(i) T-score analysis of the data reported for clients referred from Human Resources, shows that not only was there no significant difference between clients who committed an adjudicated offence or who had a POE conducted on them during the follow-up period and those who did not, in the case of four of the nine subscales the results are in the opposite direction to what was hypothesized. However, the five that are in the hypothesized direction are the same as those that were significant for the larger sample.

Discriminant function analysis demonstrates that only a moderate separation between the two groups was attained. This is shown by the r value of 0.467 which is significant at the .01 level. Figures show that the derived coefficients were able to correctly predict group membership with 70.59% accuracy.

(ii) T-score analysis of the data reported for POE referrals shows a substantial difference between the two groups. The differences were all in the hypothesized direction and significance was attained on seven of the nine subscales. All significant variables were the same

as those reported for the larger sample except for one, "Family Self" where no significant difference was shown, and three others indicated earlier in Table 3 where the POE subgroup demonstrated significance.

Discriminant function analysis shows that a substantial separation between the two groups was attained, since the r value was 0.742, which was significant at the .01 level. Figures earlier shown in Table 11, reveal the derived coefficients were able to correctly predict group membership with 88.24% accuracy.

(iii) T-score analysis of the data reported for delinquent first offender clients, shows that there was little difference between the two groups. Significance was only attained on the "Personal Self" variable which was in the opposite direction to what we hypothesized. In fact the results were only in the same direction as was originally hypothesized on the "Behaviour" and "Family Self" subscales.

Discriminant function analysis shows that a substantial separation between the two groups was attained, as indicated by an r value of 0.763 which was earlier reported in Chapter IV, and was significant at the .01 level. Figures earlier shown in Table 13, reveal the derived coefficients were able to correctly predict group membership with 85.71% accuracy.

(iv) T-score analysis of the data reported for

delinquents who had committed more than one offence prior to program involvement or the JD X2 group, shows that there was little difference between the two groups. While significance was only attained on one subscale, "Social Self", all differences were in the same direction as was originally hypothesized.

Discriminant function analysis shows that only a moderate separation between the two groups was attained, as indicated by an r value of 0.438 which was significant at the .01 level. Figures earlier shown in Table 15 reveal the derived coefficients were able to correctly predict group membership with 72.09% accuracy.

CONCLUSIONS

The study points to a number of conclusions concerning differences in self-concept within the subject population and the possible utility of the TSCS as a predictive classification instrument. For the sake of clarity this section is divided into three subsections: (1) the major conclusions concerning the initial hypotheses made for the complete study population; (2) conclusions derived from the separate analyses conducted according to the four original subgroups that made up the larger sample; and (3) incidental conclusions from the study.

Major Findings

The main conclusion that may be made from the study is that significant differences in self-concept exist between

juveniles who were referred to a community social agency who commit an adjudicated offence or who were subjects of a POE during an eighteen month follow-up period, versus those who have committed no recorded offences during the same period. The empirical findings confirmed most of the postulated hypotheses which stated that those who committed no further offences would obtain significantly higher scores than those who did, on a selected measure of self-concept.

The most significant differences between the two groups were found on the "Self-Satisfaction" and "Family Self" subscales. This indicates that juveniles who committed no further offences were more satisfied with perceptions of their identity and felt more valued and less likely to be in conflict with their family than the other group.

Other subscales where significant differences were found, include: "Physical Self", "Social Self", and "Overall Level of Self-Esteem". According to the test manual this indicates that juveniles who committed an offence or who were subjects of a POE tend to have fewer social skills and are more likely to conceive of themselves as unattractive. In addition, they also report a lower overall level of self-concept than juveniles who committed no further offences.

The results from the application of discriminant analysis to the data suggest that the TSCS would be a poor instrument for predictive classification with similar populations and might be better restricted to individual counselling

and diagnosis. The small r value that was reported showed that only a small separation was achieved between the two groups and also indicates considerable heterogeneity in scores within both populations. Results from the classification analysis which showed that the derived coefficients were only able to correctly predict group membership with 59.71% accuracy, are even less impressive when you consider that the procedure was retrospective based on existing data rather than the result of predictive usage with a new sample.

Subgroup Findings

Any consideration of the results obtained from the analyses conducted according to the four original study subgroups should take into account three pertinent factors: 1) First, the analyses were the result of retrospective consideration and no attempt was made to match the groups, either according to sample size or socio-demographic criteria; 2) Second, the groups may not be considered to be representative since referral to the program was made according to behavioural versus offence criteria; and 3) Third, results may have been influenced by the comparatively small sample size of each of the respective groups. Thus, subgroup findings should be considered to be suggestive and provocative more than conclusive, and generalized conclusions should not be made from the results. With the foregoing acknowledgement, a separate presentation is made for each subgroup.

(i) In the analysis of the Human Resource referrals, no

significant differences were found between the two groups. When discriminant analysis was applied it was found that moderate separation of the two groups was possible and the derived coefficients were able to correctly classify 70.59% of the group members. This result would tend to suggest that the TSCS is of little use in determining differences between juveniles who would later commit an offence and those who would not. While the discriminant analysis shows some promise, recognition that the overall improvement over assignment by population size was only approximately 11.77%, leads to a similar conclusion. Further research with a more representative group may lead to more significant results.

(ii) In the analysis of the POE referrals, significant differences were found between the two groups on seven of the nine test variables. When the discriminant analysis was applied it was found that substantial separation of the two groups was possible and the derived coefficients were able to correctly classify 88.24% of the population. This result indicates that self-concept may be an important variable in determining whether another delinquency is committed and the TSCS could be a powerful tool for predictive usage with this type of population. Certainly, the results would support the view that further investigations should be encouraged.

(iii) In the analysis of the delinquent first offender

group, the only significant difference between the groups was on the dimension of "Personal Self" which was in the opposite direction to what was hypothesized. While the sample wasn't large enough to draw any definite conclusions, results may indicate that first offenders who later become recidivists may not consider themselves as in need of the type of assistance that such a community program can provide, while non-recidivists may be open to such help. Some support for this view is provided by Lewis et al. (1977) who, in an analysis of recidivism in a Detroit program, conclude that the agency wasn't effective in reducing reconvictions for first offenders as they may be less receptive to rehabilitation efforts because they are less likely to see themselves as really having a problem. This view is also sustained by the fact that a juvenile's attitude is considered by a probation officer during a pre-court enquiry, and a number of first offenders included in the sample may have had the "wrong attitude" since court action was deemed necessary.

Results from the application of discriminant analysis to this population indicated that a substantial separation of the two groups could be achieved and a correct classification of 85.71% of the sample could be made. A significant number of individual variables were included in the derived function indicating the utility of discrimination on a number of different dimensions of self-concept.

Certainly, the result tends to support usage of a weighing system such as discriminant analysis in contrast to separate analysis of each variable. Further research using the test is warranted in view of the substantial results obtained from such a limited sample.

(iv) In the analysis of the data reported for the JD X2 group, the only difference that was found between recidivists and non-recidivists was on the "Social Self" subscale. This implies that those who committed further offences may have more difficulty in making new friends and as a result are less likely to obtain peer support for personal changes, than those who committed no further offences.

When the discriminant analysis was applied, only a small separation of the two groups was achieved and the derived coefficients were only able to correctly classify 72.09% of the population. This result demonstrates little appreciable improvement over classification by sample size and indicates that the TSCS would be a poor instrument for predictive classification with similar populations.

Incidental Findings

Several other findings also appear to be warranted from the study's data:

First, it would appear that the JD X2 subgroup may not have been accurate in their self-report or they may not have not been representative of other such delinquents in general.

This view is substantiated by the fact that the JD X2 subgroup's mean score on the "Total Positive" or "Overall Level of Self-Esteem" subscale was *higher* than those reported for the other subgroups. The results indicate the Human Resource subgroup mean on the subscale was 310.06, the POE subgroup mean was 306.47, the first offender subgroup mean was 297.71, while the JD X2 mean was 309.23, much higher than other reported research would lead us to expect. For instance, results documented by Bliss (1977) predict that group means should be in a descending order with the Human Resource group obtaining the highest score.

Finally, results indicate that considerable improvement in classification using discriminant analysis may be attained by separate consideration of juveniles according to their degree of formal involvement with the juvenile justice system. In all instances the four separate analyses of the subgroups yielded a much more significant degree of correct classification than for the larger group. However, further research exploring differences between the type of offender populations included in the study are necessary before any definite conclusions should be drawn.

IMPLICATIONS

These findings and conclusions have a number of important implications for practitioners and researchers in the juvenile delinquency field.

Earlier, the question of whether negative self-concept precedes initial and subsequent labelling of delinquents was raised. It was suggested that if negative self-concept could be shown to precede delinquent behavior then some causal relationship may be proposed. The data from this research supports the view, that to some extent negative self-concept does precede delinquent behavior. The degree of significance achieved in this research is consistent with the theory earlier discussed in Chapter II that suggested that there is a continual interaction between self-concept and behavior. One's self-concept was seen to be affected by behavior and in turn behavior was seen to be an expression of, or partly determined by self-concept. It may be theorized that should this interactional dynamic not have been taking place, then either there would have been no significant difference found between the groups, indicating that behavior exclusively determines self-concept, or significance would have been achieved at an even greater level, indicating that self-concept exclusively determines behavior.

As Bliss (1977) has noted, the foregoing interaction concept has important implications for agencies working with delinquents. The interaction concept suggests that change in delinquent behavior might best be accomplished by working on both variables simultaneously, behavior and self-concept. Therefore, such agencies should create an atmosphere where not only is firm and effective supervision received, but

individuals also are encouraged to believe that they are of personal worth and value. Also, the agency must help the delinquent find a new behavior that is more rewarding and provide the opportunities for those rewards.

The study may also have definite implications for the particular agency involved. The results suggest the possibly family counselling, a component not offered by the program at the moment, may be worthwhile and should be included. Also, programming should stress opportunities for social skill development, identity formation, and exercises and training in decision-making. Finally, the differences in scores on the "Physical Self" subscale may indicate that the program should: a) include an active recreational component stressing bodybuilding; b) utilize medical examinations to allay client concerns with their body; and/or c) provide opportunities to purchase clothing that is in keeping with peer standards of dress and appearance.

In view of some of the other differences found within particular subgroups, the agency may also wish to consider: a) either not accepting first offenders or attempting to get them to acknowledge the need for the program; b) developing a social skill program for recidivists referred to the agency; and c) applying the derived prediction coefficients to future POE referrals and working more closely with low scorers.

For researchers who wish to conduct other self-concept studies, this study has two main implications. The first is

that a large heterogeneous sample may obscure important differences between individual subgroups that make it up. This fact was amply illustrated in the considerable variance in results attained by separate consideration of the four types of delinquents referred to the program. A second implication is that discriminant function analysis may yield important results not readily apparent in a simple t-score comparison of TSCS subscales. This was demonstrated by the substantial separation attained for the delinquent first offender subgroup even though little significant difference was found in t-score comparisons.

The research indicates that the question of what differences exist between POE probation clients and delinquent first offenders would be a fruitful area of future study, since such significant differences were found between POE recidivists and non-recidivists.

Others considering research in this area should consider the following points:

a) The type of design used in this study was a before-after design, which did not provide for the retesting of subjects and was limited to an eighteen month follow-up. Ideally, research that was longer term and provided for retesting would be more fruitful. An example of such a study is provided by Ageton and Elliot (1973) who interviewed 2,617 youths in eight different schools, once annually, from the ninth to twelfth grades. Such a four year comparison would provide valuable data as various

classifications of delinquents could be compared as further delinquencies were recorded.

b) Dependency on a paper and pencil test was limiting and future studies should consider including data from other sources such as parent interviews and teacher ratings.

c) This study was conducted using only male subjects. Data collected from female subjects would be interesting for comparison and might permit the establishment of separate predictive criteria.

APPENDIX I
NATURE AND MEANING
OF
TSCS SUBSCALE SCORES

According to W. Fitts (1965:2) in the *Manual for the Tennessee self Concept Scale*, the nature and meaning of the subscale scores included on the Counselling Form is as follows:

A. The Self Criticism Score (SC). This scale is composed of 10 items. These are all mildly derogatory statements that most people admit to being true for them. Individuals who deny most of these statements are being defensive and making a deliberate effort to present a favorable picture of themselves. High scores generally indicate normal healthy openness, and capacity for self-criticism. Extremely high scores (above the 99th percentile) indicate that the individual may be lacking in defenses and may in fact be pathologically undefended. Low scores indicate defensiveness, and suggest that the Positive Scores are probably artificially elevated by this defensiveness.

B. The Overall Level of Self-Esteem or Total Positive Score (P). This is the most important single score on the Counselling Form. It reflects the overall level of self-esteem. Persons with high scores tend to like themselves, feel that they are persons of worth and value, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves.

If the Self Criticism (SC) Score is low, high P scores become suspect and are probably the result of distortion. Extremely high scores (generally above the 99th percentile) are deviant and are usually found only in such people as paranoid schizophrenics who as a group show many extreme scores, both high and low.

On the Counselling Form the Positive Scores are simply designated as P Scores.

C. Row 1 P Score - Identity. These are the *what I am* items. Here the individual is describing his basic identity - what he is as he sees himself.

D. Row 2 P Score - Self Satisfaction. This score comes from those items where the individual describes how he feels about the self that he perceives. In general this score reflects the level of self satisfaction or self acceptance. An individual may have very high scores on Row 1 and Row 3 yet still score low on Row 2 because of very high standards and expectations for himself. Or vice versa, he may have a low opinion of himself as indicated by the Row 1 and Row 3 scores yet still have a high Self Satisfaction Score on Row 2. The sub-scores are therefore

best interpreted in comparison with each other and with the Total P Score.

E. Row 3 P Score - Behaviour. This score comes from those items that say *this is what I do* or *this is the way I act*. Thus, this score measures the individual's perception of his own behavior or how he functions.

F. Column A - Physical Self. Here the individual is presenting his view of his body, his state of health, his physical appearance, skills and sexuality.

G. Column B - Moral-Ethical Self. This score describes the self from a moral-ethical frame of reference-- moral worth, relationship to God, feelings of being a *good* or *bad* person, and satisfaction with one's religion or lack of it.

H. Column C - Personal Self. This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality apart from his body or his relationship with others.

I. Column D - Family Self. This score reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.

J. Column E - Social Self. This is another *self as perceived in relation to others* category but pertains to *others* in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.

K. The Variability Scores (V). The V Scores provide a simple measure of the amount of variability or inconsistency from one area of self perception to another. High scores mean that the subject is quite variable in this respect while low scores indicate low variability which may even approach rigidity if extremely low (below the first percentile).

1. Total V (IV). This represents the total amount of variability for the entire record. High scores mean that the person's self concept is so variable from one area to another as to reflect little unity or integration. High scoring persons tend to compartmentalize certain areas of self and view these areas quite apart from the remainder of self. Well integrated people generally score below the mean on these scores but above the first percentile.

2. Column Total V (CV). This score measures and summarizes the variations within the columns.

3. Row Total V (RV). This score is the sum of variations across the rows.

L. The Distribution Score (D). This score is a summary score of the way one distributes his answers across the five available choices in responding to the items of the Scale. It is also interpreted as a measure of still another aspect of self-perception: certainty about the way one sees himself. High scores indicate that the subject is very definite and certain in what he says about himself while low scores mean just the opposite. Low scores are also found at times with people who are being defensive and guarded. They hedge and avoid really committing themselves by employing "3" responses on the Answer Sheet.

Extreme scores on this variable are undesirable in either direction and are most often obtained from disturbed people. For example, schizophrenic patients often use "5" and "1" answers almost exclusively, thus creating very high D scores. Other disturbed patients are extremely uncertain and noncommittal in their self descriptions with a predominance of "2", "3", and "4" responses and very low D scores.

APPENDIX II

TSCS - SAMPLE TEST QUESTIONS

1. I have a healthy body.....
3. I am an attractive person.....
5. I consider myself a sloppy person.....
19. I am a decent sort of person.....
21. I am an honest person.....
23. I am a bad person.....
37. I am a cheerful person.....
39. I am a calm and easy going person.....
41. I am a nobody.....
55. I have a family that would always help me in any kind of trouble.....
57. I am a member of a happy family.....
59. My friends have no confidence in me.....
73. I am a friendly person.....
75. I am popular with men.....
77. I am not interested in what other people do.....
91. I do not always tell the truth.....
93. I get angry sometimes.....

APPENDIX III

TSCS NORMATIVE DATA

W. Fitts (1965:13) in the *Manual for the Tennessee self concept Scale* reports the following normative data for the test:

Means, Standard Deviations, and Reliability Coefficients
Tennessee Self Concept Scale

SCORE	MEAN	STANDARD DEVIATION	RELIABILITY*
Self-Criticism (SC)	35.54	6.70	.75
Total Positive (TP)	345.57	30.70	.92
Row 1 (R1)	127.10	9.96	.91
Row 2 (R2)	103.67	13.79	.88
Row 3 (R3)	115.01	11.22	.88
Column A (Col.A)	71.78	7.67	.87
Column B (Col.B)	70.33	8.70	.80
Column C (Col.C)	64.55	7.41	.85
Column D (Col.D)	70.83	8.43	.89
Column E (Col.E)	68.14	7.86	.90
Total Variability (TV)	48.53	12.42	.67
Column Variability (CV)	29.03	9.12	.73
Row Variability (RV)	19.40	5.76	.60
Distribution Score (D)	120.44	24.19	.89

* Reliability data based on test-retest with 60 college students over a two-week period.

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