NEUROTIC AND PSYCHOPATHIC CRIMINALS: SOME MEASURES OF EGO SYNTONICITY, IMPULSE SOCIALIZATION, AND PERCEPTUAL CONSISTENCY

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ABSTRACT

NEUROTIC AND PSYCHOPATHIC CRIMINALS: SOME MEASURES OF EGO SYNTONICITY, IMPULSE SOCIALIZATION, AND PERCEPTUAL CONSISTENCY

By Paul Saul David Berg

The present study was concerned with some of the psychological attributes of two selected groups of prisoners. Many previous attempts at constructing typologies of inmates have resulted in the isolation and definition of "psychopathic" and "neurotic" adjustment types. The "psychopathic" type is characterized by continuous antisocial behavior and by lack of personal discomfort associated with direct impulse expression. The "neurotic" type shows greater ability to inhibit direct impulse expression as well as a variety of signs suggestive of personal discomfort, e.g., anxiety, guilt, and neurotic symptoms in general.

On the basis of both clinical observations and psychoanalytic formulations of character development, the following characteristics were suggested as possible discriminating factors between the two groups: impulse socialization, ego syntonicity (integration), perceptual consistency, and extraversion.

In order to investigate these attributes, "psychopathic" and "neurotic" inmates were selected on the basis of institutional adjustment and MMPI profiles. From the

pool of subjects who met the appropriate standards for these criteria, two groups of 30 subjects each were matched for race, age, I.Q., and time served on present sentence. Four procedures were employed: (1) Eysenck's Extraversion scale; (2) eight cards of the Thematic Apperception Test (Pine's scoring system); (3) specially constructed pairs of high and low socialized slides presented stereoscopically; (4) tachistoscopic presentation of these slides.

The hypothesis that the drives of Psychopaths are less socialized than those of Neurotics was confirmed by the stereoscope results. When pairs of high and low socialized slides, each depicting a different degree of socialization of the same drive, were presented to the subjects, Neurotics selected significantly more high socialized slides. The six individual pairs of slides confirmed the hypothesis in each case; two of the slide pairs achieved significance individually. However, when impulse socialization was tested by the Drive Socialization Index (TAT) no significant differences were obtained. The lack of positive results on this TAT index as well as on the TAT Number of Drive Content was explained in terms of the structure of the TAT and the poor internal reliability of these two scoring systems.

The only TAT scale which yielded significant results was the Drive Integration Index. Thematic drive

integration used as an operational measure of ego syntonicity occurred in greater degree for Psychopaths than Neurotics, as predicted. The association between drive integration and low-socialized perception was statistically significant.

When perceptual consistency was defined as the commission of error in the perception of tachistoscopic slides, the groups did not differ. However, when the nature of the errors was examined, it was found that Psychopaths committed significantly more low-socialized errors and Neurotics more high-socialized errors. The generality of the stereoscope results thereby received additional support.

Psychopaths achieved greater perceptual consistency which was defined by greater internal consistency on stereoscope perception. Finally, Psychopaths obtained significantly higher Extraversion scores than Neurotics.

Previous stereoscope studies have indicated that assaultive, poorly adjusted inmates perceive more violent stimuli than less aggressive inmates. The present study extended previous work by utilizing slides depicting a variety of impulsive themes, e.g., orality, sex, aggression, Further support was provided for the contention that individuals who have had experience with impulsive behavior tend to be sensitized toward perceiving impulse content. Furthermore, the present study suggested that one of the

correlates of the capacity for blatant impulse expression and perception may be the degree to which impulses are integrated into the personality.

Suggestions for further research with the stereoscope and drive integration measure were also considered. A variety of investigations calculated to explore the predictive validity of these instruments for various indices of institutional and parole adjustment were suggested.

Approved:

Albert I. Rabin
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NEUROTIC AND PSYCHOPATHIC CRIMINALS: SOME MEASURES OF EGO SYNTONICITY, IMPULSE SOCIALIZATION, AND PERCEPTUAL CONSISTENCY

By

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DEDICATION

The labors of this thesis are dedicated to my wife Miriam and my newborn daughter, Donna Irene. Miriam was a constant source of strength throughout many of the difficult hours. Both of us in turn drew support from Donna Irene.

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CHAPTER I

BACKGROUND FOR THE STUDY

Introduction

While the field of mental health has progressed in gaining some public understanding and acceptance of the mental patient, correctional psychology has lagged behind in exorcising the demons from the criminal. The publics' conception of the criminal, (and of his home--the prison) is replete with weird images and fantasy material related to unbridled violence and horror. It is not questionable that such an attitude, which permeates all sectors of our society, has impeded progress in the understanding and treatment of "criminal disorders."

Certainly, the fantastic attitudes which the public at large holds towards criminals is related to the fact that criminals and prisons remain experiential unknowns to general society. Although criminologists and social scientists do possess degrees of experience with criminals in prison they, too, fall short in understanding criminals on both empathic and scientific grounds. However, as a result of years of prison experience, penologists have naturally advanced somewhat further than the general public in understanding criminal disorders. One clear distinction has been the development of

a position which no longer considers a single "criminal type", but instead recognizes the balance between similarities among criminals in conjunction with the inherent uniqueness and idiosyncrasy of each criminal. Penologists have not yet been able to organize relatively stable categories, or isolable personality types, but the direction of interest in this area is perhaps the clearest trend in criminology. Both Clinard (1959) and Mueller (1958) have stated the case for typological systems as the sine qua non of adequate treatment theories and research in criminology.

Type Theories

An Historical Approach

The recognition of personality, temperament, and character types in philosophy and psychology predates taxonomic approaches in criminology. The first well known system was developed by Hippocrates and was followed by such classical attempts as those of Kraepelin, Francis Galton, Freud, and Jung (Bonner, 1961, Ch. 3). The development of criminal typologies can be dated back at least as far as the work of Lombroso and his disciples (Gibbons and Garrity, 1959).

Perhaps the earliest attempt at classification of criminal types was in Pennsylvania's Walnut Street Jail of 1797 (Barnes and Teeters, 1959, p. 466). Adams (1961) points out that recognition of both the need for classification of criminals and for different treatments for different types of

criminals was already a clear trend in the United States by 1845.

Present Trends

A review of the literature suggests that the issue today is not whether the construction of typologies is a useful and heuristic endeavor, but rather what directions such efforts should take. The very few objections to construction of criminal typologies are largely of an older vintage and are not currently popular notions. McCann (1948) points out that society chooses to think of "a" criminal type, regardless of whether scientific support would be forthcoming for such a notion. It would be comforting to think of a category of persons, very much unlike us, who are designated as criminals and who bear little or no resemblance to ourselves. Michaels (1959) summarizes "logical and historical explanations" for aversions to the construction of typologies.

Various trends in the construction of criminal typologies have been noted. Gibbons and Garrity (1959) point to a movement away from general theories which attempt to account for general criminal behavior towards separate theories for specific patterns of crime. In a later publication, Gibbons and Garrity (1962) cite a second trend in the direction of sociological analysis of types, and away from gross multiple factor frameworks. According to Gibbons and Garrity (1962) another tendency in typologies has been to emphasize classification of young offenders rather than adult criminals.

There are presently available a large variety of classification systems. Impetus for these systems has come from every one of the social science fields, including psychology, psychiatry, sociology, social work, penology, and from various schools of thought within each of these disciplines. Not only do orientations vary, but the method of the construction of the typologies may vary, e.g. empirical-statistical, empirical-observational, theoretical.

There has been such a variety of classification attempts that efforts are now being directed towards classifying the classification systems themselves (Gibbons and Garrity, 1959; Gibbons and Garrity, 1962; Grant, 1961).

The best summary of the development of criminal classification types is presented by Grant (1961). She summarizes five broad types of classification attempts. The first category is the "prior probability approach" which emphasizes the prediction of criminality via base expectancy tables. The second is labeled the "psychiatric-oriented approach," as illustrated by the work of Aichorn (1935), and Jenkins and Hewitt (1944). The third category is the "reference group" typology represented by the work of Sykes (1958) and other social class typologists. The fourth category is that of "behavioral classification," which is well illustrated by the work of Gibbons and Garrity (1959; 1962) and covers a range of generality-specificty from offense types to conformity-nonconformity dichotomies. The final approach is that of

"social perception and interaction classification" as presented by Baker and Sarbin (1956), Gough (1948; 1960), Peterson, Quay and Cameron (1959), and Sullivan, Grant and Grant (1957).

Although the relationship is not perfect, these categories often tend to be associated with different orientations. The "prior probability approach" category is usually occupied by statistically-oriented scientists; the "reference group" and "behavioral classification" categories are usually reserved for sociologically-oriented investigators; the "psychiatric" and "social perception" categories are usually associated with clinical and experimentally-oriented investigators. The focus in this thesis will center about the last group.

Future Directions

A variety of suggestions concerning the future directions for criminal typology has been presented in the literature. There seem to be four basic positions: (1) Continue to locate and define the types (Mueller, 1958; Kinch, 1962); (2) The types have been located; they are now ready to be interrelated (Grant, 1961); (3) Create theoretical models (Eliasoph, 1962); (4) Explore the dimensions and psychological correlates of existing types (Grant, 1962; Kinch, 1962; Peterson, Quay, and Tiffany, 1961).

The location and definition of types has been receiving primary attention from modern typologists. However, demonstrating the existence of types does not necessarily indicate

a state of readiness for elaborate and sophisticated theories. Rather, the need seems to be for explaining what has already been found. Too often the "labeling" of types is passed off as "explaining" them. Gibbons has lamented, "Most of the typologies presented to date involve little more than the assertion that there are types, without any clear indication of the attributes which distinguish different delinquent patterns" (1962, p. 236). Kinch adds, "Simply because we have a scheme to classify the various types studied so far does not indicate that we have isolated either a cause or a defining factor" (1962, p. 326).

The trend appears to represent a movement away from constructing additional typologies based on cryptic, anecdotal sources (Eliasoph, 1962; Gibbons, 1962; Gibbons and Garrity, 1959; Kinch, 1962; Mueller, 1958), and away from purporting to explain criminal typologies or behavior by reference to the "they're sick" theory. A growing concern with investigating the functional differences among various criminal types seems to be slowly replacing the race for more and new types. For example, the relationship between types of offenders and types of treatment (Adams, 1961; Grant, 1961; Grant, 1962; and others), between institutional adjustment types and perception of violence (Shelley and Toch, 1962), between institutional adjustment and neurosis and psychopathy (Peterson, Quay, and Tiffany, 1961), have all begun to be explored. Peterson, Quay and Tiffany have stated the direction for future research:

> Further research on the validity of such constructs as socialization, psychopathy, and neuroticism, and study of their relationships to various antecedents and consequents, should lead to a considerable refinement in research, and may offer a substantial increase in knowledge about antisocial behavior (1961, p. 13).

The definition of the major types, however, still remains equivocal. Attempts to classify and synthesize recent research findings in criminal typology are cumbersome due to (a) the frequent use of arbitrary names or definitions of the criminal groups; (b) the relative absence of commonly defined types; (c) the lack of systematic attempts to interrelate various classification systems, or to relate them to common theoretical contexts.

Grant (1961) has declared that even if consistencies do exist among studies, they are obscured by the differences in definitions of groups, as well as by the lack of integrative attempts to relate one study to another.

It is true that there are formidable terminology and language barriers which prevent precise translation of types from one study to another. However, examination of the types can reveal an underlying consistency and uniformity of defining characteristics.

A Common Thread

When criminals are compared to noncriminals, it is common for the former to be characterized as extraverted or psychopathic and the latter as introverted or neurotic (Cassel and Harriman, 1959; Foulds, 1960; Glueck and Glueck, 1950; 1956; Gough, 1960; Miller, 1956; Moller, 1960). However, when

the criminal population itself is examined and classified, both psychopathic and neurotic types are consistently found. Whether the method of classification is psychophysiological examination, case history study, or factor analytic analysis of questionnaires, the psychopathic and neurotic types reappear. The terms used to describe these two types range from "unsocialized-overinhibited" to "nonsocial neurotic-asocial offender", but they all appear to be describing a similar continuum of behavior involving neurotic and psychopathic adjustment. The extraverted or psychopathic type[1] is characterized by impulsivity, acting out, and other external manifestations of pathology; the introverted or neurotic type by inhibitions, inability to express feelings, and by a relative internalization of pathology (symptoms). A review of the studies which have located these types offers an opportunity for more detailed descriptions of their characteristics.

Review of the Literature on Criminal Typology

Mueller (1958) has collated various criminal typologies and classified the findings into summary types (See Appendix M). The two main psychological types, I and III, represent essentially neurotic (introverted) and psychopathic

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[1]"Psychopathic type" does not refer here to the wide range of behaviors often ascribed to this "wastebasket" category. Rather, it will be restricted in this thesis to those persons whose behavior is aggressive and antisocial, and appears to be expressed without overt signs of moral apprehension, guilt, anxiety, or other indications of internal discomfort.

(extraverted) categories, respectively.

Kinch (1959) has presented a similar tabulation of criminal types found in the literature, although his emphasis is almost entirely on social orientation. Two of the main classifications which Kinch summarizes and labels non-social neurotic and a-social offender also appear to correspond to neurotic and psychopathic types, respectively. Other studies reviewed below suggest the existence of a similar typology of criminals.

Rodger (1948) studied 50 naval prisoners who were free from somatic disease and were clearly diagnosed as "psychopaths." The total group was divided into those who were discipline violators in prison and those who were without prison violation. The prisoners were compared on case history incidence of autoplastic and alloplastic[2] traits, as well as on a variety of tests of autonomic stability, e.g., Cold Pressor Test, incidence of excessive sweating and blushing, etc. Rodger concluded that both the experimental measures and the case history material revealed that prisoners tended to fall into either neurotic adjustment or acting out adjustment groups. For example, the most flagrant institutional offenders produced normal responses to the Cold Pressor Test, whereas the preponderance of neurotic

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[2]Autoplastic traits refer to "self-molding" devices in which conflict is dealt with by the organism via the production of alterations within the organism, e.g., repression, fantasy, psychoneurotic symptoms. Alloplastic traits, on the other hand, refer to mechanisms for dealing with conflict which are directed outside of the individual through the implication of the environment, i.e., through acting-out and "other-molding" devices.

indicators occurred in the non-discipline violators. The neurotic non-violator group evidenced more complaints in the following areas: gastro-intestinal, respiratory, muscular, cardiovascular, and genito-urinary systems. Both the autoplastic and alloplastic adjustment types were viewed as adaptive attempts to cope with anxiety and conflict, and served to distinguish the two groups in terms of behavioral adjustment. The results must be interpreted with caution since control groups were not utilized and such factors as age were not controlled within the groups.

Franks (1956) attempted to relate recidivism to Eysenck's dimensions of neuroticism and introversion-extraversion, in the context of a Pavlovian theory of cortical excitation and inhibition. The author summarized recent research as suggesting that:

> . . .introverts and introverted neurotics condition readily and extraverts and extraverted neurotics, including psychopaths, condition poorly. It is suggested that there are two kinds of recidivists; the introverted ones, who condition well and who readily learn the rules of their (undesirable) environment, and the extraverted --possibly psychopathic--ones, who condition poorly and who find great difficulty in learning the rules of their environment (desirable or otherwise) 1956, p. 199.

Bartholomew (1959) specifically investigated the relationship between extraversion-introversion and recidivism. The author tested 50 consecutive first-offender admissions to prison and 50 consecutive recidivists on Eysenck's Extraversion-Introversion and Neuroticism-Normality scales. The results showed that recidivists scored significantly higher on both

Extraversion and Neuroticism than did first-offenders. Bartholomew indicates that the results must be interpreted with caution due to the manner in which the subjects were selected (on specific court referral), failure to consider the distribution of psychopathy in each group, and finally, differential effects of confinement upon new prisoners as compared to experienced prisoners. An objection of more importance is the arbitrary labeling of the factor by Eysenck as "neuroticism." Argyle (1961) points out that many studies show neuroticism to be positively or negatively associated with criminals depending on how neuroticism is defined. When the Eysenck scale is used, or when neuroticism is defined in terms of such behavioral measures as "low frustration tolerance," or when neuroticism is used as a synonym for maladjustment, confusion of neuroticism and other kinds of maladjustment is bound to occur.

Miller (1956) avoided confusing different kinds of pathology by defining maladjusted groups according to type of pathology. Six hundred white males seen at child guidance clinics and classified as either introverted, extraverted, or ambiverted were followed up 28 years later. In the follow-up study which included a total of 551 subjects of which 165 has been labeled introverted, 224 extraverted and 162 ambiverted, the following percentages had incurred delinquency violations: 5 per cent of the introverted, 11 per cent of the ambiverted and 25 per cent of the extraverted. The differences between

the high rate of delinquency for the previously defined extraverted group and the other two groups were significant at the .01 level. The author concluded that extraverted and ambiverted children, in that order, are more likely than introverted children to incur disciplinary violations. While it is true that the child guidance clinic sample is not a representative sample of the entire population of delinquents, the results are valuable in the validation of a longitudinal relationship existing between introversion-extraversion and antisocial acting out.

Hewitt and Jenkins Series

One of the best known typologies of offenders has been evolved by Jenkins and Hewitt (Hewitt and Jenkins, 1946; Jenkins and Hewitt, 1944; Jenkins, 1957). Their division of criminals into different maladjustment types has served as a model for many subsequent criminal typologies (Adams and Grant, 1961; Mueller, 1958; and others). In the initial study concerned with fundamental patterns of maladjustment, Jenkins and Hewitt (1944) evaluated 500 cases referred to a child guidance clinic. On the basis of cross tabulation of 94 traits, three relatively independent behavior syndromes were identified and labeled: (1) Excessive Inhibitions, Internal Conflicts, Neurotic; (2) Inadequate Inhibitions, External Conflicts, Unsocialized; (3) Inhibition Toward In-Group Only, Group Conflict, Pseudo-Social. The first type is essentially an internalizing syndrome, the second an externalizing syndrome, and the third primarily a

sociological rather than psychological category.

Types (1) and (2) were subsequently labeled Over Inhibited Syndrome Pattern and Unsocialized Aggressive Behavior Syndrome Pattern, respectively (Hewitt and Jenkins, 1946). The internalizing nature of Type (1) is revealed in the following description: guilty, shy, sensitive, day-dreams, overly dependent, cries easily, worries, apathetic, conforms-submissive, feels inferior, compulsive, indecisive, easily depressed, anxious, disturbed in dreams and sleep. The externalizing nature of Type (2) is revealed in the following description: deliberately destroys and/or attacks, inadequate guilt feelings, refuses to accept blame, cannot get along with others, maliciously mischievous, boastful, selfish, defies authority, deceitful, etc.

In a later publication Jenkins (1957) redefined a basic dichotomy of offender reactions. The basic thesis in this article was that some criminal acts are goal-motivated whereas others are frustration responses. The assumption behind this division was that the former represented the "true delinquent" and "actor out" and the latter represented a more classical neurotic paradigm of crime.

Peterson-Quay Studies

Peterson, Quay and Cameron (1959) activated a series of factor analytic studies of delinquent behavior. The authors factor analyzed two questionnaire scales of demonstrated effectiveness in differentiating delinquents from nondelinquents.

Three personality dimensions and two background factors were located. The first factor was characterized by a number of psychopathic qualities and was named accordingly. The second factor which included impulsive, antisocial behavior was found to co-vary with expression of guilt, regret, depression, and other negative affect. The authors interpreted and labeled this as a neurotic dimension. The third factor implied a sense of inadequacy and was labeled accordingly. The main finding of this study was the location of a psychopathic-like and neurotic-like component to delinquent behavior.

A study designed to test the validity and meaningfulness of the three labeled factors was conducted by Quay, Peterson and Consalvi (1960). Representative samples of Training School boys, incarcerated for varying lengths of time, were administered delinquency scales and were scored for the three personality factors. In addition, the children's form of the Manifest Anxiety Scale was included. The results indicated low, but positive correlations between the PD factor (Psychopathic-Delinquency) and: incarceration for a crime against the person as opposed to a crime against property; institutional disciplinary problems; longer institutionalization and recidivism. The ND factor (Neurotic-Delinquency) related significantly only to the anxiety measure. The authors interpreted the results as lending support to the appropriateness of the labels.

A more recent investigation (Quay and Blumen) analyzed the court records of a sample of 191 male delinquents for the

presence or absence of 13 delinquent acts. A factor analysis of the correlations between the separate offenses yielded four major factors and a possible fifth one. The authors pointed out that two of the major factors, "impulsivity" and "interpersonal aggression," were probably manifested by delinquents heavily loaded on Hewitt and Jenkins' unsocialized aggressive type, discussed above. Another major factor, arbitrarily labeled as "escape and impersonal aggression" was felt by the authors to be related to the dimension of neurotic delinquency as identified by Peterson, Quay and Cameron (1959).

Peterson, Quay and Tiffany (1961) attempted to test the uniformity of their Psychopathy and Neuroticism factors. They selected four questionnaires which had previously been found by their authors to effectively differentiate offenders from nonoffenders. These questionnaires were then administered to a large sample of delinquents and nondelinquents and the results were factor analyzed. In both a first-order and second-order factorization of the tests, the Psychopathy and Neuroticism factors reappeared; other factors appearing at various stages of data analysis were not as consistently found.

Summary Regarding Typologies

This brief review of typologies has revealed an underlying consistency of "neurotic" and "psychopathic" offender types. These types have been labeled variously as: autoplast and alloplast (Rodger, 1948); introvert and extravert (Bartholomew, 1959; Franks, 1956; Miller, 1956); over-inhibited syndrome pattern and unsocialized aggressive behavior syndrome pattern

(Hewitt and Jenkins, 1946; Jenkins and Hewitt, 1944; Jenkins, 1957); neurotic delinquency and psychopathic delinquency (Peterson, Quay and Cameron, 1959; Peterson, Quay and Tiffany, 1961; Quay, Peterson and Consalvi, 1960). Similar dimensions are also found in Mueller's Type I and Type III (1958) and in Kinch's non-social neurotic and a-social offender (1959).

The criminal types described above were labeled on the basis of case history studies, questionnaire responses, and behavioral observations. In only rare cases are formal clinical diagnoses of neurosis or psychopathy[3] used as the basis for classification. However, it is reasonable to assume that parallels may exist between the "neurotic-like" and "psychopathic-like" types found in the criminology literature, and psychoanalytic formulations of neurosis and character disorder. It may be fruitful, therefore, to examine some of the psychoanalytic distinctions between neurosis and character disorder, and their possible application to "neurotic" and "psychopathic" criminals.

Psychoanalytic Character Theories

Although orthodox psychoanalytic theory of psychopathology was developed initially with a focus on the classical

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[3]The term "sociopath" has replaced "psychopath" in the standard psychiatric nomenclature (American Psychiatric Association, 1952). The change was intended to emphasize the nature of the illness as social deviation. The term "psychopath" will be retained here, however, due to its persistently common usage.

symptom neuroses, recognition was also given to the development of character, and in fact, the present trends relegate an even more important role to this concept (Hartmann, 1958; Michaels, 1959).

Glover defines character as, ". . .a set of organized behavioral reactions founded on and tending to preserve a stable equilibrium between id tendencies and submission to realities" (1926, p. 26).

The stabilizing role of character is further highlighted in the following definition:

> In behavioral terms, character may be described as a person's usual manner of thinking, feeling, and acting: it is a response-organization which is stable and relatively resistant to change (Brody, 1960, p. 79).

The distinction between the pervasiveness of character traits and ordinary symptoms has been described by Reich. According to Reich, while the symptom is essentially a single experience or striving, the character trait represents, ". . . the specific way of being of an individual, an expression of his total past" (1949, p. 44). Reich's concept of character is that of an armor formed through chronic hardening of the ego which limits the psychic mobility of the total personality. The rigidity of character is thereby accentuated by Reich in such a way as to make character and resistance practically identical (Sterba, 1954).

Increasing recognition of the role of character in pathological development led to distinctions between the classical psychoneuroses and character neuroses (character disorders).

Character and Its Deviations

Perhaps the earliest specific formulation of character deviation was that of Alexander's "neurotic character" (1930). Alexander's conceptualization of the neurotic character was intended to convey the idea that, ". . .the neurotic element manifested its presence in these individuals not so much in the form of circumscribed symptoms as in the character, that is to say, it permeates the patient's personality and thus influences his total behavior" (1930, p. 295).

A similar formulation to that of the neurotic character was Reich's "triebhafter character," an instinct-ridden person who was free from obvious neurotic symptoms but who, nevertheless, behaved pathologically (Glover, 1960; Sterba, 1954).

The major distinction between the symptom neuroses and the character neuroses is that the former involve autoplastic symptoms and the latter alloplastic responses (Fenichel, 1945).

Autoplastic and Alloplastic Character

Autoplasticity and alloplasticity were originally Lamarckian concepts describing organismic adaptation to the environment, and were then reapplied by Freud and Ferenczi to the adaptational processes of psychic life (Fenichel, 1945; Ferenczi, 1926; 1955; Hartmann, 1958; Reich, 1949).

Glover (1926; 1960) has outlined the paradigm of conflict resolution in relation to direction of plasticity. When situations of instinct tension occur they give rise to conflict

which requires some modification calculated to bring about relief. Although the origins of tension emanate from within, solutions of the resulting conflicts can conceivably take place either within the organism or in manipulation of the outer world. The former course of action involves the individual modifying himself (autoplastic) via the production of repression, fantasy, psychoneurotic symptoms. The latter (alloplastic)requires modification of the environment. The autoplastic mechanisms are "self-molding" devices whereas alloplastic mechanisms are "other-molding" devices.

Exaggerations of either one of these modes of plasticity represents psychopathological adjustment, even though both modes of plasticity are present in some degree in all human organisms (Eissler, 1949). In neuroses autoplastic mechanisms predominate; in most character disorders relatively unmodified alloplastic mechanisms are the case; in "normal" adjustment alloplastic devices, although modified, are predominant (Eissler, 1949; Kozol, 1961; Miller, 1960; and Rodger, 1948).

Although both "normals" and character disorders utilize a predominance of alloplastic devices, there are some important differences in the quality of the devices. Whereas the drives of autoplasts are ego alien and the drives of alloplasts are ego syntonic, the drives of "normals" are both ego syntonic and <u>reality-syntonic</u>. (The dimension of ego syntonicity of drives will be developed in a later section.) The distinction between the drives of "normals" and alloplasts resides not in the

direction of plasticity, nor in the congruency of drives with the ego, but in the congruency of drives with the world, i.e., with reality (Hartmann, 1958).

The drives of "normals," therefore, are neither expressed primarily through fantasy or internalization (autoplastic-neurotic), nor through direct, unsocialized, external channels (alloplastic-character disorder), but through appropriately sublimated behavior in tune with both the ego and the world.

While neurotics and character disorders differ in the direction of their symptomatology, i.e., autoplastic and alloplastic, they also differ on other dimensions, e.g., ego flexibility, ego syntonicity of impulses, and impulse socialization.

Ego Flexibility

Reich's view of character and resistance as practically identical (Sterba, 1954) is the clearest portrayal of the rigidity of character disorders. Kozol (1961) has described the rigidity of character disorders as an "intrapsychic stereotypy." Others (Fenichel, 1945; Ferenczi, 1955) have also stressed the rigidity of ego functioning in character disorders or alloplasts in contrast to psychoneurotics or autoplasts.

Nunberg (1956) has pointed out that in character disorder, "The character seems to be identical with the ego, which is never true of symptom and ego" (Nunberg, 1956, p. 44). Consequently, in character disorders the pervasiveness and rigidity

of character block flexibility in ego functions, e.g., in perception, mastery of motility, countercathexes, etc.

Fenichel (1945) and Reich (1949) have described the ego functions of character disorders as rigid, definitive, once-and-for-all formations which chronically limit ego flexibility and operate as an armor against external or internal stimuli. The character disorder, according to Fenichel, is unable to perceive or respond to external stimuli by any means other than certain set reactions. The result is that the ego functions of character disorders are inflexible and are reflected in rigid, undifferentiated perception, poor judgment and inadequate reality testing.

On a clinical level, the greater automatization and inflexibility of character disorders as opposed to neurotics has been noted in their differential potential for and response to psychotherapy. Character disorders show more character defenses, resistance to change, alloplastic devices to avoid insight or self evaluation (East, 1945; Eissler, 1949; Fenichel, 1938; 1945; Glover, 1926; Michaels, 1959; Nunberg, 1956; Reich, 1949; Schulman, 1955).

Apparently the distinguishing factor behind the formation of character traits and character disorders on the one hand, and neurotic disorders and neurotic symptoms on the other hand, is the role of repression. Whereas the neurotic symptom is a partial failure of repression, thus leading to compromise solutions (symptoms), the character trait represents previously

effective repression which no longer requires active maintenance (Nunberg, 1956).

Reich clarifies the role of repression in character formation:

> The relationship between character and repression is the following: The necessity of repressing instinctual demands gives rise to character formation. On the other hand, the character, once formed, makes a great deal of repression unnecessary; this is possible because instinctual energies which are free-floating in the case of simple repression, are absorbed in the character formations themselves. The establishment of character trait, therefore, indicates the solution of a repression problem; it either makes the process of repression unnecessary or it changes a repression, once it is established, into a relatively rigid, ego-accepted formation. . . . These facts explain why it is so much more difficult to eliminate repressions which have led to the formation of well-established character traits than repressions which led to a symptom (1949, p. 161).

Once formed, the rigid character traits are maintained and resistant to change. This intractable quality of character traits is related not only to the rigidity of character formation, but to the integration of character traits into the ego. This dimension of integration is known as "ego syntonicity".

Ego Syntonicity of Drives

The classical neurotic symptom is a compromise between drive and defense, and occasionally, an exaggeration of defense only. The character disorder's behavior is more directly an expression of the particular drive with the defensive element either absent at the time, or negligible (Fenichel, 1945; Glover, 1926; Reich, 1949; Rodger, 1948). In fact, the very characteristic "low-controls" quality of the character disorder is his best known behavioral pathology. The behavior of

neurotics, however, involves drive-plus-defense and occurs with anxiety--which is relatively absent for character disorders.

The relative absence of current defensive elements in the character disorder renders the nature of his drives acceptable and admissible to his ego, in contrast to the neurotic's drives which involve defense and censure. Consequently, the neurotic's drives are ego alien (objectionable) while the character disorder's drives are ego syntonic (acceptable).

Nunberg compares the ego syntonicity of neurotic symptoms and character traits:

> As a rule, the neurotic symptom causes subjective suffering and is felt by the ego more or less as a foreign body, for the symptom is assimilated by the ego only to a limited extent, even where there is a symbiotic relationship between symptom and ego. Character traits or habits are much better assimilated than symptoms, and form an integral part of the ego. . .which is never true of symptom and ego (1956, p. 44).

On a motivational level, the neurotic's behavior is viewed as an "avoidance of pain" (although this may have pleasurable aspects), and the character disorder's behavior is seen as a "seeking of pleasure" (Eissler, 1949; Silverberg, 1952). Since the character disorder's impulses are relatively without defense, and thereby pleasurable, the ego in this vicious circle further assimilates the drive within itself. The ego is avoided the task of evaluating the impulses, since the impulses have become part of it and not some foreign entities peripheral to it (Eissler, 1949; Glover, 1926; Nunberg, 1956). The neurotic's impulses, on the other hand, ". . .are completely

out of touch with the ego, irrational, and dissociated" (Glover, 1926, p. 21).

The greater syntonicity of the character disorder's impulses leads to heightened difficulties in socialization of those impulses.

Socialization of Drives

The neurotic possesses a system of checks and balances on impulse expression which is absent for the character disorder. The result is that the character disorder usually constitutes a more intense social problem than does the neurotic. In the first place, the character disorder's rigidity and inflexibility leave him without the diverse alternatives of impulse expression which are open to the neurotic, e.g., internalization, partial expression, substitution, etc. Secondly, since the character disorder's impulses are ego syntonic, there are no controls through evaluation or censure of the impulses. Finally, their character rigidity delimits not only other modes of conflict resolution, but also such possibilities for change as psychotherapy and treatment in general. The unsocialized behavior of character disorders, therefore, is a consequence of the multiple lack of restraints against acting out.

Id and Superego

So far, the focus has been on the ego's role in pathological development. However, the ego's functions may also be related to the other components of the psychic structure, i.e., the id and superego. The strength of id or

instinctual strivings is a popular variable in the explanation of behavior disorders. The notion of "excessive" impulse strivings in criminals implies the existence of constitutional differences. This concept of constitutional bases of criminal behavior has occupied strategic positions in such theories of criminality as: Lombroso's "born criminal" (Cleckley, 1959), Karpman's "idiopathic psychopath" (Karpman, 1941-1942), and Bender's "defective delinquent" (Bender, 1947). However, constitutional explanations of criminal behavior are decreasingly popular hypotheses (Rabin, 1961), and the diagnosis of "constitutional psychopathic state" has been eliminated from the Diagnostic and Statistical Manual (American Psychiatric Association, 1952).

The incomplete or defective superego has also been popularized in explaining criminal behavior (Brill and Baird, 1950; Dallmau, 1961; Karpman, 1961; Rabin, 1961). The differential etiology of superego malfunction in character disorders (alloplasts) as compared to neurotic disorders (autoplasts) may be related to the earliness of deprivation and trauma in the former.

> The ego-device first observed as a reaction to oral trauma is that of finding a substitutive gratification, but one cannot be certain that this is in actuality the ego's earliest attempt at adaptation. The device of finding a substitute would seem to require no autoplastic operation and it may, in general, be supposed that the earliest ego-devices would be alloplastic in character. I assume here that, granting an awareness of distinctions between self and other, where there is a sense of disturbance the primary tendency will be to look for the source of disturbance in the other rather than in the

> self: other requires to be changed, not self. I find it difficult to imagine the infant either as able to isolate his own impulses in the manner necessary to treating them as responsible for his difficulties, or as inclined to take an attitude of mea culpa in his attempts to cope with them. For him, as it seems to me, it would always primarily be a matter of tua or sua culpa, and consequently the outer world (other) would require manipulation in some form (Silverberg, 1952, p. 64).

The argument at this point seems to run as follows: if the child is forced to experience trauma before he has developed a sense of self, then his ego-defensive maneuvers must be alloplastic, since the infant has not yet developed the capacity for internalization, personal responsibility, or autoplasticity in general. If trauma occurs at a later period of development, for example during the oedipal stage, then the defensive maneuvers are more likely to lead to autoplastic or internalizing neurotic adaptations.

The most common example of infantile trauma is extreme and early deprivation. Rabin (1961) and Naess (1959) have summarized a number of psychoanalytic studies dealing with maternal deprivation and its relationship to both delinquency and faulty character development. The primary role of deprivation in character disorders has also been emphasized by Baker and Sarbin (1956), Friedlander (1949), Glueck and Glueck (1950), Kaufmann (1955-1956), and Silverberg (1952). Other authors (Bender, 1947; Lindner, 1944-1945; Wittels, 1937) have pointed to the pre-oedipal nature of character disorders, and specifically to the oral character of such deviations (Altman, 1957; Fenichel, 1945).

Diagnosis and Crime

Although "character disorder" is a common designation of criminals, many types of character disorder do not ordinarily display antisocial pathology, e.g., schizoid personality, compulsive personality, etc. The need for separating the broad category of character disorders into those who are actual behavior disorders and social offenders, versus those whose illness does not involve extensive acting out has been suggested by Brill and Baird (1950) and Cleckley (1959). The three diagnostic subgroups who are characterized not only by disorders of character but specifically by extensive acting out are: Emotionally Unstable Personality, Antisocial Reaction, Sexual Deviation (American Psychiatric Association, 1952).

Criminal behavior, however, is not restricted to character disorders; neurotics and psychotics may also act out their problems via criminal channels (Bartholomew, 1959; Bender, 1947; Wattenberg, 1961).

> Many a crime is being committed, often repeatedly, by persons who have a strong revenge motive, who "act-out" repressed hostility, and so on. These may be largely neurotic reasons rather than stemming from the basic personality defect we call "psychopathic personality" (Rabin, 1961, p. 282).

Neurotic and Psychopathic Criminal Types

Both neurosis and psychopathy and admixtures of the two may contribute to criminal behavior. The prevalence of these pathological types has been demonstrated in the review of criminal typologies. These typology studies frequently described

the "psychopathic" criminal as: less socialized, more comfortable with expressing his impulses, and more resistant to change than his "neurotic" counterpart. Similarly, psychoanalytic theory characterized character disorders as: less capable of impulse socialization, more ego syntonic in impulse expression, and displaying more ego inflexibility than psychoneurotics.

The following chapters present a method for testing the distribution of these traits in "neurotic" and "psychopathic" criminals.

CHAPTER II

STATEMENT OF THE PROBLEM

Introduction

Chapter I presented the background for this study. A brief history of criminal typologies and a review of current trends in classification were outlined. Some of the future directions in criminal typology were also considered.

The need for defining the characteristics of "known" criminal types was stressed. An attempt was made to show that despite differences in the terminology of types from study to study, certain consistencies and uniformities in findings existed. Specifically it was shown that two major criminal types emerge from almost all classification systems. On the one hand there is the criminal who is introverted, inhibited, and neurotic; on the other hand, the criminal who is extraverted, impulsive and psychopathic. In order to define some of the psychological factors which may distinguish neurotic and psychopathic criminals, psychoanalytic theories of neurosis and character disorder were presented. It was expected that differences between neurotics and character disorders might also apply to some of the clinically observed differences between neurotic and psychopathic criminals.

The prison provides a laboratory for testing different types of criminals. Incarcerated persons may be divided into two specialized groups, those who react to the conflicts of confinement and the increased external suppressive forces with neurotic mechanisms, and those who maintain their characteristic psychopathy in spite of the exaggerated environmental restrictions upon this type of behavior. Once these two groups are operationally defined and located, it is proposed to investigate the relationship between neurotic and psychopathic criminal types and the following psychological attributes.

Interrelationships Among Variables

The degree of the convict's neurosis and/or psychopathy may be operationally defined here in terms of his current behavioral adjustment, i.e., whether he displays neurotic or psychopathic behavior patterns while in prison. It is proposed that neurotics and psychopaths differ in the following dimensions:

(1) Ego syntonicity

(2) Socialization of impulses

(3) Perceptual consistency

Psychopaths evidence little concern with the objectionable correlates of impulses, i.e., moral apprehension, anxiety, guilt. Consequently, they experience their drives as integrated into the personality rather than at the

periphery of it. Neurotics experience their drives as ego alien and suffer the objectionable aspects of impulses. The drives of neurotics, therefore, rather than being integrated into the personality, are peripheral to it and not experienced as part of themselves.

A second attribute of psychopaths is their relative inability to express impulses in any other way than by acting them out. Consequently they evidence lower degrees of socialization of impulses than do neurotics. The impulses of neurotics, on the other hand, are either acted out or expressed in the classical symptom compromise between drive and defense. Because neurotics tend to direct some of their drives inward, less of their impulses are apt to be expressed through unsocialized channels.

Another attribute of psychopaths stems from their rigid ego formations. As a result of ego-inflexibility, their perceptual processes are rigid and intractable. Neurotics, however, display less rigidity of ego processes and consequently more fluctuation and inconsistency in their perception.

The general hypothesis is that psychopathic criminals experience their drives as ego syntonic; express them in an unsocialized manner; and are perceptually rigid and inflexible. Conversely, neurotic criminals experience their drives as ego alien; show more concern with socialization; and display more perceptual inconsistency and fluctuation.

CHAPTER III

SUBJECTS AND PROCEDURES

Subjects

Sixty men incarcerated for felonious crimes at the State Prison of Southern Michigan (SPSM) served as subjects for this research. The sample was composed of two matched groups of 30 each. The criteria for inclusion in the Neurotic and Psychopathic groups were as follows:

(1) Minnesota Multiphasic Personality Inventory (MMPI)

Every incarcerated felon in the State of Michigan is processed and evaluated at the Reception-Diagnostic Center (RDC) located at SPSM. Although all inmates do not receive the same battery of psychometric and projective tests, all are administered the M.M.P.I. (Hathaway and McKinley, 1951).

In order to set up formal criteria for MMPI diagnoses of neurosis and psychopathy, the Chief Psychologist,[4] RDC, and the writer agreed on the following indices for inclusion into the respective groups:

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[4]The writer is indebted to Alex Cade for his advice.

Neurotic

Either (1) Each of the three neurotic triad scales (Hysteria, Depression, and Hypochondriasis)[5] achieve a score of 70 or above, i.e., two standard deviations above the mean, or (2) Two of the three scales of the neurotic triad equal 70 or above, and the Psychopathic Deviate (Pd) scale equal 60 or below, i.e., one standard deviation above the mean or less.

Psychopathic

Psychopathic Deviate scale equal 70 or more, and all three of the neurotic triad scales equal 60 or less.

The scores of Neurotics and Psychopaths on the four MMPI scales are listed in Appendix A. The range and means of these scores are presented in Appendix B. The differences between the means of both groups on the three scales of the neurotic triad are significant well beyond the .01 level. The mean scale scores for Neurotics were 78.77, 76.80, and 77.10, on Hs, D, and Hy, respectively. All three means were between two and three standard deviations above the normative means of 50.00. In contrast, the Psychopaths' means on these scales were: Hs, 49.20; D, 55.83; and Hy, 52.63. (The ranges and means for all subjects on the remaining nine MMPI scales are presented in Appendix C.)

The difference between Neurotics and Psychopaths on the Pd scale was less than on the neurotic triad, although

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[5]Hs, D, and Hy, respectively.

the greater mean score for the Psychopaths is significant at the .05 level. The psychopaths' mean Pd score was 79.03 as compared to the Neurotics' mean of 75.33. Less difference would be expected on the Pd scale since both groups are drawn from a population of criminals. The important distinction between the groups is that in the psychopathic groups the proclivity for acting-out occurs without significant neurotic concomitants, whereas in the neurotic group acting out tendencies occur in conjunction with neurotic and discomforting indications.

(2) Behavior Check List

In addition to MMPI criteria, subjects were required to have displayed behavior relevant to their diagnostic classification. In other words, it was not enough to appear neurotic or psychopathic on the MMPI, but it was also expected that a subject would adjust to the institution in a like manner. The institutional adjustment of a subject was determined by reviewing his case folder. Information from the case folder was then utilized to complete the Behavior Check List for that subject (See Appendix D).

The Behavior Check List constructed by the writer contains four items dealing with institutional behavior. The first category considers the subject's disciplinary record for the past year. The remaining three categories deal with neurotic versus psychopathic indices of adjustment and are

comprised of symptoms usually associated with these two types. The disciplinary criterion was an absolute one in that the subject had to meet this criterion before he would be considered on the remaining three categories.

Disciplinary Category

Infractions of institutional rules are recorded by the officer issuing a ticket describing the violation. The violator is then "tried" in disciplinary court and sentenced to isolation in a "restricted" cell for periods of 1 to 15 days at a time. Frequent violations, or single serious violations, e.g., violence, escape, etc., are punished by prolonged though modified segregation known as "Triple 0."

In order to qualify for the neurotic group a subject had to have no disciplinary or "Triple 0" violations for the past year. The psychopathic subjects were required to have incurred either at least two separate "tickets" during the past year or have been sentenced to "Triple 0." The distribution of number of "tickets" and/or "Triple 0" violations are contained in Appendix A. All 30 neurotics were free of any disciplinary violations for the previous year. Eight of the psychopathic subjects incurred between 2 and 4 tickets during the previous year, with a mean of 2.8, whereas the remaining 22 psychopaths qualified on the basis of their "Triple 0" dispositions. The amount of acting out of the Psychopaths is underemphasized in this tabulation since many of them incurred at least one ticket in addition

to their "Triple O" experience, and furthermore, lengthy stays on "Triple O" deprived the Psychopaths of opportunities to accumulate additional violations. Nevertheless the two groups represent extremes along the dimension of institutional disciplinary adjustment. (Information regarding number and types of previous felonious offenses committed by both groups are presented in Appendix E.)

Symptom Categories

In addition to the first Behavior Check List item dealing with disciplinary record, the remaining three items describe a polarity of neurotic-psychopathic symptomatology. The three categories for neurotic classification are: (1) characteristically anxious; (2) other neurotic symptomatology (physical complaints with no organic findings, phobias, tics, dissociative episodes); and (3) usually shy, introverted, withdrawn. The psychopathic categories describe opposite attributes or at least the absence of neurotic attributes: (1) not anxious; (2) no neurotic symptoms; (3) bold-extraverted, manipulative.

For final selection, a subject who qualified on the MMPI and disciplinary criteria needed only one of the three symptom categories appropriate to his previous classification, as well as the absence of any symptoms in the opposing categories.

The information for classifying subjects on these three categories was obtained by reviewing notations in

their institutional folders recorded by treatment staff, counselors, work supervisors, and other civilian personnel. The type of comments relevant to the symptom categories ranged from sophisticated diagnostic statements to layman descriptions of behavior. One psychopathic subject was described as: "arrogant, hostile, talks back, insolent, agitator"; another as: "assaultive, aggressive, unpredictable psychopath"; yet another as: "manipulative, impulsive, demands immediate gratification, antisocial, impulsive psychopath"; still another as: "hot-tempered, highly explosive, typical sociopathic disorder, inappropriately aggressive". Neurotic subjects were described as: "withdrawn and frightened"; "exceptionally anxious individual whose antisocial behavior is related to his neurotic defenses"; "most of his anxiety is internalized at this time as opposed to acted out in a direct antisocial manner". In addition to these behavioral descriptions many of the neurotics displayed specific symptoms and disorders such as essential hypertension, peptic ulcers, dissociative episodes, psychophysiological skin disorders, depressions, compulsions, phobias, as well as a variety of pan neurotic disturbances.

A pool of potential subjects who met the MMPI, disciplinary, and symptomatology criteria was thus accumulated. This pool was considerably and progressively narrowed by the three major avenues of exit from prison, i.e., discharge, parole, and death. From the remaining numbers 30 subjects

were selected for each group and matched for race, age, I.Q., and amount of time served on present sentence (See Appendix F for the distribution of these variables).

Matching Variables

Race

The possible effect of racial differences was controlled by matching subjects on race. The final sample contained 16 Negro pairs and 14 White pairs. The one subject in the final sample classified as "Mexican" was considered as "White" for the purposes of matching.

Age

The limits for matching on age were a maximum of a five year difference between each subject of a pair. The average difference between pairs, however, was less than 3 years per pair (See Appendix G). Negro Psychopaths averaged less than one year older than Negro Neurotics; this difference was reversed for White pairs where the average Neurotic was slightly over two years older than his Psychopathic counterpart. The difference between White Neurotics and White Psychopaths was significant at the .01 level despite the small difference since the Neurotics' two year age increment was almost constant throughout the White sample. When White and Negroes were combined, Neurotics averaged 30.97 years and Psychopaths 30.50 years, the difference of which was not significant (See Appendix H).

I.Q.

Each inmate receives an I.Q. classification on the Army General Classification Test administered during his processing in the Reception-Diagnostic Center. For the present study the limits for I.Q. matching were set at 15 points. The average difference between members of a pair, however, was slightly more than 6 points for Negroes and less than 6 for White subjects. When Negroes and Whites are combined the average difference was 6.3 points (See Appendix G).

The average I.Q.'s were as follows: Negro Neurotics = 92.44, Negro Psychopaths = 94.44, White Neurotics = 102.93, and White Psychopaths = 104.00. For both Negroes and Whites there is less than a two point I.Q. increment for the Psychopathic groups. However, these differences were not statistically significant, nor were they for All Neurotics or All Psychopaths combined where the averages were 97.33 and 99.17, respectively (See Appendix H).

Time Served on Present Sentence

In order to control for possible effects of institutionalization each Neurotic-Psychopathic pair was also matched for the amount of time that they had served on their present sentence. The limits for matching were set at a maximum of 18 months. The average differences, however, were 9.4 months for Negroes, 7.7 months for Whites, and 8.6 for all pairs combined (See Appendix G).

The average number of months served was as follows: Negro Neurotics = 25.88, Negro Psychopaths = 30.25, White Neurotics = 25.14, and White Psychopaths = 25.00 months. When All Neurotics and All Psychopaths were combined, the former attained an average of 25.33 and the latter 27.60. None of these differences was significant (See Appendix H).

The final selection of subjects thus provides a Neurotic and a Psychopathic group, roughly equivalent on race, age, I.Q., time served, and differing sharply on MMPI and institutional indices of psychopathic and neurotic adjustment. These experimental subjects were then administered the following experimental tasks:

Instruments and Special Equipment

Thematic Apperception Test (TAT)

The TAT was utilized because Pine's (1960) scoring system of this test (below) appears highly appropriate to the impulse socialization constructs of this research.

The following eight TAT cards were administered to the subjects of both groups: 3BM, 4, 8BM, 12M, 13MF, 15, 17BM, and 18BM. These eight cards were selected by the writer and a colleague[6] as capable of eliciting stories characterized by frequent use of obvious impulse themes.

The protocols were scored subsequently according to the system outlined by Pine (1960). This scoring system

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[6]Fred J. Pesetsky, Ph.D., Chief Psychologist, Psychiatric Clinic, SPSM.

provided three separate scores for each card: (a) presence of drive content (amount), (b) directness of expression of drive content (socialization), (c) integration of drive content.

(a) The presence of drive content allows for recording the number of specific, explicitly mentioned drives, e.g., sexual, aggressive, generally libidinal drives.

(b) The directness of expression of drive content provides for scoring at three different levels of drive socialization or modulation. Level 1 reflects direct-unsocialized libidinal drives, e.g., murder, robbery, rape, etc.; Level 2, reflects direct-socialized drives, e.g., kissing, eating, intercourse between marital partners, etc; Level 3 represents indirect-disguised, weak drives. This last category includes scoring for drives where the underlying impulse is neither explicitly thought nor acted upon, e.g., mention of police, soldiers, accidents, etc. Level 3 is also relevant to rating drives which are weak and highly derived, e.g., social expressions of aggression, strikes, references to surgeons, etc.

(c) The integration of drive content is the final scoring category and provides for recording three types of integration. The highest level of integration is thematic and here the drive is part of the central theme or character portrayal; it may even receive only brief mention, but it must retain a main link to the story. A lower level of

drive integration is scored as incidental; this drive may have a tenuous link to the story, but it is generally expendable and enriches the story only tangentially. Finally, a drive may be scored as non-appropriate, in which case the drive is actually not in accord with the TAT task. For example, exclamations and side comments before, during, and after the story; mentioned drives not at all included in the story; misperceptions or doubts about the identity of persons or objects; verbal slips about drive content items, etc.

The reliability and validity of this scoring system are reported by Pine (1960). The reliability was determined by two independent scorers' ratings of eight TAT stories of 28 undergraduates. Full agreement between raters on drive content occurred 69% of the time on a sample of 637 scoring units; agreement by chance alone would have occurred only close to 0% of the time. Reliability was also computed for drive level and drive integration on those units where there was agreement on drive presence in the first place. For drive level, complete agreement between the two raters on socialization Levels 1, 2, and 3, occurred 82%, 80%, and 85% of the time, respectively. The raters concurred on thematic, incidental, and non-appropriate levels of integration 95%, 65%, and 89% of the time, respectively. The overall agreement on all integration scores was 93%; agreement by chance alone for the above six categories would have been 33%.

Construct validity was assessed by correlating the TAT scores with rankings derived from Q-sorts. The Q-sorts were obtained by the judges evaluating each subject's Rorschach, Wechsler-Bellevue, autobiography, and extensive interview material, and then rating each of these materials on six separate Q-sorts: Affects and Inner States, Thought Processes, Motives, Defenses, Interpersonal Behavior, and Identity and Self-Attitudes. Finally, these Q-sorts were compared by rank correlations to the TAT scores.

Tables were then constructed indicating both extremes of the Q-sort rankings in relation to the extreme on the relevant TAT score. Thereby, the various personality attributes were related via Rho to the subjects with: high versus low drive presence, well-integrated versus poorly integrated use of drive, and modulated versus unmodulated drive levels. On this basis 36 personality characteristics were evolved. An overview of the results suggests the following tendencies:

(a) High-drive subjects show more emotional lability and expressiveness, are relatively uninhibited, and minimally anxious.

(b) Subjects with high degrees of drive integration show little anxiety or disruption, lack somatization tendencies, relate to people narcissistically behind a facade of warmth, and have a relatively stabilized character structure.

(c) Subjects with unmodulated drive expression not only show impulsive discharge, but also display little ability to discharge impulses in internalized ways such as fantasy. Furthermore, they have rigid self-concepts and little capacity to experience conflict within the self.

It might be noted at this time that the description of Psychopaths in the present thesis corresponds very closely to Pine's description of individuals who are characterized by: high drive content; high degrees of drive integration; and unmodulated drive expression.

Stereoscope

The TAT was employed in this design in an attempt to tap fantasy pertinent to impulse socialization and integration. These variables may also be studied at the perceptual level by use of the prism stereoscope, as modified by Engel (1956).

The modified stereoscope allows the subject to put his eyes to a viewer leading into a completely enclosed box. Inside the box are two slots into which the two stimuli (pictures) may be inserted. The subject then has one picture facing his left eye and another in front of his right eye. Both the distance of the stimuli from the viewer (focus) and the illumination of the slides are variable individually and in combination. In addition, a timing device is utilized which permits setting the exposure time in intervals of 1/1000 of a second, 1/100 of a second, 1/10 of a second, 1 second, and 10 seconds.

If two pictures are constructed so as to be mutually exclusive, perceptually, i.e., so that they will not "fuse" into a composite picture, then binocular rivalry occurs in stereoscopic presentation. This means that first one picture is perceived, then the other, then the first again, etc. In this type of presentation, with a relatively short exposure interval, the subject "sees" only one figure. The stimulus in the other monocular field never "reaches" him. Furthermore, if eye dominance is controlled (through variable presentation of the experimental figures alternately to one eye and then the other) the perception of the particular figure is assumed to be determined by the subject; it is the way he perceives. The specific contention is that if structural differences in stimuli are accounted for, the kind of stimulus for which the subject has some predisposition will perceptually predominate in the stereoscope.

In other words, support is found in the literature for the contention that what the subject sees in a stereoscopic "choice" situation may be determined by his needs (Beloff and Beloff, 1959; Shelley and Toch, 1962) and by his past experiences (Bagby, 1957; Davis, 1959; Hastorf and Myro, 1959; Toch and Schulte, 1961). This contention may be applied to the constructs of the present thesis. For example, if the clinical formulations of Neurotics and Psychopaths are correctly stated, the stereoscopic situation can be modified to test these constructs directly. A test of these

constructs can be conducted on the differences in impulsivity between Neurotics and Psychopaths. These dissimilarities should differentially predispose the subjects in their perception of impulse-related stimuli in a "choice" situation.

In order to test these formulations, pairs of slides were constructed which depict a higher and a lower level of socialization of the same impulse within each slide pair. These pairs of slides were presented to the group which almost always expresses impulses directly (Psychopaths) and to the group which frequently internalizes impulse expression (Neurotics). There should be some correspondence between the ways that these two groups express their impulses, behaviorally, and the ways in which their impulses are integrated and expressed perceptually. It would be expected that Psychopaths should perceive more "unsocialized" impulse portraits than Neurotics who would tend to perceive "socialized" impulse figures in the choice situations. The results from such a study could prove interesting by validating the assumption that Neurotics and Psychopaths differ not only in the way in which they express impulses, but also in the way in which they integrate and perceive impulse-related content. By utilizing a variety of impulse themes, the generality-specificity of impulse integration and socialization may also be examined.

The stimuli for the stereoscope were designed by the

writer and a convict artist. They consist of a set of pictures (pictograms) presented in pairs of two each (stereograms). Both pictures in a pair were constructed so as to be roughly comparable in size, outline, and position in the visual field. (A reproduction of one of the stereograms, "Boxer-Brawler", is presented in Appendix I.) Each pair of pictures represents an illustration or characterization of an impulse-related theme, e.g., aggression, sex, orality, etc. The two pictures in a pair represent different levels of socialization in the expression of the particular impulse. Thus, one pictogram portrays two men brawling, while its mate depicts two men boxing in an arena. The former is a more direct expression of an aggressive instinct, while the latter is expressive of the same instinct, but in a more socially modified or sublimated form. Another pair depicts marital love making versus non-marital love making. In this case, the former is a more highly socialized form of the sexual activity which the latter also represents in a less socialized form. Six such stimulus pairs constitute Series I of the stereoscopic material and include:

(1) "Bride-Lover": Both slides picture a man embracing a woman. In the "high-socialized" slide, the woman is wearing a bridal gown, the man is in formal attire, and the backdrop is an altar. The "low-socialized" version contains none of these signs of marriage and the backdrop is a bed.

(2) "Singer-Stripteaser": Both slides portray two men watching a female performer on a stage. In the "high-socialized" version the performer is dressed, while in the other she is nude except for a "g-string."

(3) "Coffee-Beer": In each slide a man is seen leaning against a counter, drinking from a vessel. In the former, he is holding a coffee cup; in the latter a beer mug.

(4) "Diner-Glutton": Both slides portray a man seated at a table eating. In the former he is using utensils and eating normally. In the latter he is gluttonously devouring a hunk of meat without benefit of silverware or restraint.

(5) "Dancer-Rapist": This slide pair depicts a man and woman in close "embrace." In the "high socialized" version the embrace occurs in the context of dancing, with musical notes as part of the backdrop. In the "low-socialized" slide the embrace is one-sided, with the man attacking the woman and ripping off her clothes.

(6) "Boxer-Brawler": Both slides depict two men in combat. In the former they are wearing boxing gloves and the action takes place in a boxing ring. In the latter, one man is wielding a club over the head of his adversary and the setting

is a beach.

A second Series (II) utilized exactly the same materials, but presented them in the opposite order from that of Series I. Thus, in Series I, brawling was left-eye, and boxing, right eye; in Series II, boxing was left-eye, and brawling, right-eye (See Appendix J).

Finally, a third series (III) was employed, utilizing the exact same stimulus materials from Series I and II. However, in this last series, each pair consisted of the same picture presented to both eyes. For example, the first presentation presented the boxer to both the left and right eyes, and the second pair in that series presented two slides of the brawlers, one to the right eye and one to the left eye, etc. (See Appendix K).

Maudsley Personality Inventory

The final instrument administered to the groups was the Maudsley Personality Inventory (See Appendix L). Twenty-four of the questionnaire's items provide a measure of "Neuroticism" while the other twenty-four assess "Extraversion." The inventory has been administered to a variety of normal and pathological groups (Eysenck, 1959), and specifically to prisoner populations (Bartholomew, 1959). Reliability coefficients of between .75 and .90 have been reported for both of the scales and its validity has been assessed mainly by predicting differences between a variety of standardization groups (Eysenck, 1959). Thus, as predicted,

normals score lower on Neuroticism than do prisoners or hospitalized neurotics, while psychopaths obtain higher Extraversion scores than neurotics or normals (Eysenck, 1959). The meaningfulness of the labels (Neuroticism and Extraversion), derived through factor analysis, has been questioned by some investigators (Argyle, 1961). However, the Psychopathic and Neurotic prisoner groups utilized in the present study provide interesting samples upon which to apply Eysenck's Extraversion scale, since extraversion and introversion were used as selection criteria for the two groups, respectively.

Procedure

Prior to testing each subject was arbitrarily assigned a code number from 1 to 60 by an inmate clerk. The name and prison number of the subject were not available to the examiner during the testing and scoring of data in order to control against possible unconscious biases in the direction of eliciting and/or scoring responses in accord with the hypotheses. The masking of the subjects' identities was not successful for the first five men tested since it was learned that they were on the verge of leaving the institution and were thus given priority in the testing order. It is also possible that the examiner was able to categorize the subjects during testing on the basis of inevitable "clinician second-guessing"; however, this was an

uncontrollable source of potential bias. For example, two unsystematic observations of concurrent validity were made during the testing sessions. One subject, who appeared to become uncomfortable during testing, finally expressed his feelings by regurgitating all over the room. Another, was spotted stealing the examiner's cigarettes while the stereoscope was being focused. It turns out, fortunately, that they were classified as neurotic and psychopathic, respectively.

The following procedures were administered to both groups:

TAT

The eight card set of the TAT was individually administered first to one half of each group, followed by the stereoscope examination. The other half of each group received the stereoscopic examination first, and the TAT last. The following instructions preceded administration of the TAT:

> I am going to show you a series of cards with pictures of different types of situations on them. I want you to look at each card and make up a story about it. I will write down what you tell me and the story can take any form that you care to use, but try to include in each story: what is happening in the present, what might have happened in the past to bring this about, and your guess as to what might happen in the future.[7]

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[7]Pine (1960) recommends oral rather than written stories. The former are more likely to elicit the extreme reactions, e.g., intense drive, integration difficulties, while the latter are more subject to control and censorship.

All the TAT protocols were scored by the writer according to Pine's (1960) directions outlined above. In order to provide some estimate of the reliability of scoring, measures of inter-judge and intra-judge agreement were needed. The writer had previous practice with Pine's scoring system and undertook to train the second scorer, a social psychology graduate student.[8] Two training sessions of four hours duration each were spent scoring sample stories, discussing discrepancies in scoring, and resolving differences where possible. The formal reliability check involved independent scoring of a random selection of 12 subjects' protocols; a total of 96 stories or 20% sample. Product moment coefficients or correlation were computed between both judges' scores for the three scoring categories (See Appendix N). The correlations were .582 for Number of Drive Content, .722 for Drive Socialization and .615 for Drive Integration Index. The correlation for Drive Socialization Index is significant at the .01 level while the remaining two are significant at the .05 level. The inter-judge reliability seems adequate considering the relatively short training sessions and the use of a non-clinical student inexperienced with projective techniques.

The intra-judge reliability or internal consistency of the scoring method was computed by dividing each

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[8]Donald Holtrop, Counselor, SPSM.

subject's eight story protocol into odd-even half tests and correlating the halves. The product moment coefficients of correlation obtained for the three scoring categories were .164 for Number of Drive Content, .242 for Drive Socialization Index, and .518 for Drive Integration Index (See Appendix N). The Drive Integration correlation is significant at the .01 level while the others do not approach any reasonable significance. The generally low correlations obtained for the scoring categories are disappointing and suggest that this scoring method possesses little internal consistency. It is possible that the eight cards do not equally elicit drive content or similar socialization qualities, yet this does not explain the low correlations. It would be expected that subjects who are high on drive content should score close to the possible maximum for that category on any stimuli, and subjects low on this attribute score close to the minimum for that category. Thus there is evidence for the internal consistency of Drive Integration scores, but not for Number of Drive Content or Socialization scores in Pine's system.

Stereoscope

Series I

The following instructions preceded the administration of Series I.

> Please look into the viewer. I will be showing you pictures of different scenes from life. They will be on the screen for a short period of time and so I want you to watch carefully, and when the picture goes off the screen, tell me what you saw.

A constant illumination[9] of 14 c/ft^2 was maintained, and the exposure interval was 0.5 seconds for each presentation. Focus was individually adjusted for each subject by having the subject report when the dot in one pictogram was in the center of the circle in the other pictogram. If a subject normally wore glasses he was requested to do so during the examination. If any exposure did not permit confident identification, the subject was permitted to view the slide again.

The six pairs of slides were presented in the same order to each subject since we were interested in subject choices rather than in differential picture potency. As a control for eye dominance, a "high-socialization" slide (Bride) was presented to the left eye, and the corresponding "low-socialization" slide (Lover) was presented to the right eye, and so on alternately until the complete series had been presented.

Series II

The same instructions, illumination, exposure interval, and other conditions of administration described for Series I were applied to Series II. The same stimuli were

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[9]The writer is indebted to Professor S.H. Bartley for the illuminosity readings.

administered here, except that the order of alternation was reversed as an additional control against eye dominance. For example, Series II began with the "high-socialization" slide (Bride) presented to the right eye, and the corresponding "low-socialization" slide (Lover) presented to the left eye, etc. Thus, each eye of each subject was exposed to all 12 figures.

Series III

The final presentation (Series III) consisted of duplications of each slide simultaneously viewed by both eyes. In this series, therefore, there were twelve presentations as compared with the six presentations of Series I and II. Illumination in this series was also maintained at 14 c/ft^2, however, the exposure interval was 1/10 second, a condition approximating a tachistoscopic presentation. The subject was informed that the slides would be on the screen for a shorter period of time than were the slides of the previous series.

Maudsley Personality Inventory

The full forty-eight item inventory was administered to both groups immediately after they completed their stereoscope and TAT tests. The inventory was scored according to Eysenck's instructions (Eysenck, 1959) and Extraversion scores were obtained.

Operational Hypotheses

Psychopaths differ from Neurotics in the following ways:

The drives of Psychopaths are less socialized:

Hypothesis 1: Psychopaths will earn lower scores on the TAT Drive Socialization Index.

Hypothesis 2: Psychopaths will select less frequently high-socialization slides in Series I and II of the stereoscope.

The drives of Psychopaths are more ego syntonic:

Hypothesis 3: Psychopaths will earn higher Number of Drive scores on the TAT.

Hypothesis 4: Psychopaths will earn higher scores on the TAT Drive Integration Index.

The more rigid character structure and inflexible ego functions of Psychopaths lead to more rigid and uniform perception:

Hypothesis 5: Psychopaths will commit more errors on tachistoscopic presentation of previously viewed stereoscopic slides.

Hypothesis 6: Psychopaths will obtain higher internal consistency scores on all stereoscopic choices.

Psychopaths are characterized by greater extraversion of behavior.

Hypothesis 7: Psychopaths will obtain higher scores on the Extraversion scale of the Maudsley Personality Inventory.

CHAPTER IV

RESULTS

Socialization of Impulses

Hypotheses 1 and 2 predicted that Psychopaths would score lower than Neurotics on impulse socialization as measured by the TAT and stereoscope, respectively.

Table 1 presents the mean TAT Drive Socialization Index scores for Neurotics and Psychopaths. The Psychopath mean score of 2.13 was lower than the Neurotic mean of 2.19, as was predicted, but a t test of the difference between means of matched groups was not significant. When the Neurotics and Psychopaths are broken down into Negro Neurotics and Psychopaths and White Neurotics and Psychopaths, the relationship remains the same. Psychopaths obtained slightly lower Socialization Index scores than Neurotics, but not significantly so. The TAT Drive Socialization Index mean differences are not great enough to reject the null hypothesis of no difference.

The second opportunity for testing for differences in impulse socialization occurred on the stereoscope test. In this task each subject was required to choose 12 times between a high and a low socialized slide. Each subject's score was computed by calculating the number of high

Table 1

Mean TAT Drive Socialization Index Scores

Race	Neurotic	Psychopath	Diff.	t
Negro	2.21	2.17	.04	.441
White	2.17	2.09	.08	1.283
Both Races	2.19	2.13	.06	1.084

socialized choices over total number of choices made, usually 12. This percentage index was used rather than absolute number of high or low socialized choices because five subjects failed to make all 12 discriminations; three subjects made 11 choices and two subjects made 10 choices.

The mean percentages of high socialized stereoscope choices are presented in Table 2. Negro Psychopaths selected 40% high socialized slides as compared to 62% for Negro Neurotics. White Psychopaths selected 39% in comparison to 54% for White Neurotics. All Psychopaths earned a mean score of 39% as compared to 58% for All Neurotics. The greater Neurotic percentage of high socialized choices was therefore 22% for Negroes, 15% for Whites, and 19% for both races combined. The differences for Negroes and for all subjects were significant at well beyond the .01 level on a one tail t-test for matched groups. Differences between White Psychopaths and White Neurotics were also significant, but only at the .05 level. The greatest difference between Neurotics and Psychopaths occurred in the Negro groups. The null hypothesis of no difference between Neurotics and Psychopaths on impulse socialization may be rejected for the stereoscope data.

Now that the total stereoscope test was shown to discriminate Neurotics from Psychopaths, the efficacy of the individual stereograms remained to be analyzed. The sign test (Siegel, 1956) was applied to the high and low

Table 2

Mean Percentage of High-Socialized Stereoscope Choices

Race	Neurotic	Psychopath	Diff.	t
Negro	.6185	.3958	.2227	3.71**
White	.5355	.3900	.1455	2.41*
Both Races	.5798	.3931	.1867	4.39**

*Significant at .05 level.

**Significant at .01 level.

socialized choices of each Neurotic-Psychopathic pair on each of the slide pairs. A positive sign was applied each time that a Psychopath's choices on both presentations of the same stereogram were more in the direction of low socialization than were his Neurotic counterpart's choices. Table 3 presents the probabilities associated with the greater number of positive signs for Psychopaths as compared to Neurotics. Only the "Glutton" slide was chosen significantly more times by Negro Psychopaths than by Negro Neurotics ($p > .01$), while none of the low socialized slides achieved a probability as low as .05 for White Subjects. When N is increased by combining all Psychopaths and all Neurotics, two of the low socialized slides achieved significance. The "Lover" and "Glutton" slides were chosen significantly more times by Psychopaths with probabilities of .02 and .05, respectively. Although only two of the six pairs achieved significance individually, the total six item test successfully discriminated Psychopaths from Neurotics as has been shown above in Table 2.

For socialization of impulses, the stereoscope successfully discriminated Psychopaths from Neurotics, while the TAT Socialization Index failed to do so significantly. However, since the TAT Socialization Index results were in the predicted direction, albeit not significant, it would be expected that a low but positive correlation would exist between these scores and the stereoscope percentages of high socialized

Table 3

Sign Test Probabilities Associated with the Increment of Psychopaths' Over Neurotics' Low Socialized Stereoscope Choices

Race	Bride-Lover	Singer-Stripper	Coffee-Beer	Diner-Glutton	Dancer-Raper	Boxer-Brawler
Negro	.227	.402	.105	.011	.402	.598
White	.090	.212	.395	.788	.395	.395
Both Races	.022	.181	.102	.051	.291	.456

choices. The product moment coefficient of correlation between these two measures was .11, which is in accord with expectations (See Table 11).

Ego Syntonicity of Impulses

Hypotheses 3 and 4 predicted that the impulses of Psychopaths were more ego syntonic than the impulses of Neurotics. Both hypotheses were tested by TAT measures, Number of Drive Content and Drive Integration Index, respectively.

If the drives of Psychopaths are more ego syntonic, then it would be expected that they would admit more drives into awareness, and consequently should earn higher Number of Drive scores on the TAT. Table 4 presents the mean number of drive content scores for all groups.

Negro Psychopaths scored 1.12 more drives than Negro Neurotics, while White Psychopaths scored .86 less drives than their White Neurotic Counterparts. All Psychopaths scored .20 more drives than All Neurotics. The results were in the predicted direction for Negroes and for all subjects, but were in the opposite direction for Whites. None of these differences proved significant when analyzed by one tail t tests for matched groups.

The second measure of ego syntonicity of impulses was the Drive Integration Index on the TAT. Hypothesis 4 predicted that Psychopaths, whose drives are presumed to be more ego syntonic and less objectionable than those of Neurotics, would thereby show greater integration of their

Table 4

Mean TAT Number of Drive Content Scores

Race	Neurotic	Psychopath	Diff.	t
Negro	14.19	15.31	1.12	.690
White	15.29	14.43	.86	1.194
Both Races	14.70	14.90	.20	.214

drives on thematic material. Table 5 presents the mean Drive Integration Index scores for all groups. For Negroes, Whites, and Both Races, the Psychopaths obtained higher mean integration indices than Neurotics, of .15, .02, and .09, respectively. Although all three were in the predicted direction, only Negroes and Both Races were significant at the .05 level. The greatest difference between Psychopaths and Neurotics occurred in the Negro groups, which is consistent with the findings on the stereoscope (See Table 2).

Thus, while the TAT Number of Drive scores favored the Psychopaths as predicted, the difference was not great enough to reject the null hypothesis of no difference between Psychopaths and Neurotics. However when the TAT Drive Integration Index was considered, Psychopaths' drives appeared significantly more ego syntonic than Neurotics' drives, using thematic integration as a measure of syntonicity.

Perceptual Consistency

Hypotheses 5 and 6 predicted that the perception of Psychopaths would differ from that of Neurotics as a function of the former's greater rigidity and inflexibility of ego functioning.

Perceptual inflexibility was operationally defined in Hypothesis 5 as committing errors on tachistoscopic presentations of previously viewed members of stereoscope slide pairs. Pairs of high and low socialized slides presented on the stereoscope in Series I and II were presented individ-

Table 5

Mean TAT Drive Integration Index Scores

Race	Neurotic	Psychopath	Diff.	t
Negro	2.48	2.63	.15	2.034*
White	2.48	2.50	.02	.312
Both Races	2.48	2.57	.09	1.715*

*Significant at the .05 level.

ually on the tachistoscope in Series III. Thus while the "Bride" and "Lover" pair were simultaneously presented on the stereoscope, each of these slides was presented individually on the tachistoscope (See Appendix K). A tachistoscope error was defined as any misperception of the tachistoscope slide. Most often these errors constituted perceiving one of the previously seen stereoscope slides while being presented with its slide mate on the tachistoscope. If a subject had chosen "Bride" on "Bride-Lover" presentation, he was liable to report "Bride" again even when viewing "Lover-Lover" on the tachistoscope. Thus there were two types of errors: (1) high socialized errors of reporting a high socialized slide while viewing a low socialized slide, and (2) low socialized errors of reporting a low socialized slide while viewing a high socialized slide. Furthermore, these errors could occur when the subject had previously perceived the high socialized slide on both stereoscope presentations of the slide pair, or the low socialized slide on both stereoscope presentations, or finally, the high socialized member once, and the low socialized member in the other presentation.

Table 6 summarizes tachistoscope errors and their relationship to previous stereoscope choices. The total errors committed by Neurotics, 130, did not differ significantly from the Psychopaths' total of 133 errors. It is clear that when both stereoscope presentations of a slide

Table 6

Relationship Between Tachistoscopic Errors

And Previous Stereoscopic Choices

Neurotics

Tachistoscopic Error	Stereoscope Choices			
	Both High Socialized	Both Low Socialized	One High One Low	Totals
High Socialized Error	62	2	18	82
Low Socialized Error	1	34	13	48
Total Errors	63	36	31	130

Psychopaths

Tachistoscopic Error	Stereoscope Choices			
	Both High Socialized	Both Low Socialized	One High One Low	Totals
High Socialized Error	39	1	4	44
Low Socialized Error	0	68	21	89
Total Errors	39	69	25	133

pair led to high socialized perceptions, the subsequent tachistoscopic errors were high socialized errors, i.e., low socialized slides were perceived as high socialized. Conversely, when the subject's choices on the stereoscope were low socialized, his errors based on this experience were low socialized ones. Therefore since Neurotics scored significantly more high socialized percepts on the stereoscope, it is not surprising that they made 64 high socialized errors as opposed to 35 low socialized errors. Psychopaths, who scored significantly more low socialized stereoscope choices than Neurotics, consequently committed 68 low socialized errors as opposed to only 40 high socialized errors. This difference between the groups is of limited interest since it is a reflection of their differential experience on the stereoscope.

In order to check for the possible role of set in the stereoscopic results an additional analysis was conducted. Table 7 presents the stereoscope results for both groups on Series I and Series II separately. In Series I, Neurotics reported 66% high socialized percepts, while in Series II only 51% were reported. For Psychopaths the frequency of high socialized choices dropped from 44% in Series I to 34% in Series II. The decrease for Neurotics was significant at the .02 level while the Psychopaths' decrease was significant at the .05 level. Although the same relationship between the two groups was maintained, i.e.,

Table 7

Mean Percentage of High Socialized Stereoscope Choices in Series I and Series II

Group	Series I	Series II	Diff.	p[a]
Neurotic	66%	51%	15%	.02
Psychopath	44%	34%	10%	.05

[a]Significance levels determined by Sign Test.

Neurotics perceived more high socialized slides, the difference between the two groups was lessened in Series II as compared to Series I.

The effects of previous experience on the stereoscope can be controlled by considering those tachistoscope errors which occurred when one high socialized and one low socialized slide were perceived on the stereoscope. Here the subject had "equal" opportunity to err in either direction since he had equivalent experience with the high and low socialized slides. Under these conditions Neurotics committed 13 low socialized errors as opposed to 18 high socialized errors. Psychopaths committed 21 low socialized errors and only 4 high socialized errors. A chi square of low socialized and high socialized tachistoscope errors when one high and one low socialized slide were chosen on the stereoscope was significant at beyond the .01 level (See Table 8).

The prediction that Psychopaths would commit more tachistoscope errors than Neurotics was not supported. However, the tachistoscope provided additional support for the hypothesis that Psychopaths perceive more low socialized stimuli than Neurotics.

Perceptual consistency was operationally defined in Hypothesis 6 as greater internal consistency of perception. Kuder-Richardson formula 20 was calculated for the stereoscope performances of Psychopaths and Neurotics.

Table 8

Tachistoscope Errors When One High and One Low Socialized Slide Chosen on Stereoscope

Tachistoscope Error	Neurotics	Psychopaths
High Socialized Error	18	4
Low Socialized Error	13	21

Note.--$X^2 = 10.27$, $p < .01$

Table 9 reveals that the internal consistency of Psychopaths' stereoscope choices was .444 as compared to .262 for Neurotics. Although this data does not lend itself to statistical tests of significance, support was provided for Hypothesis 6.

When perceptual consistency was defined in terms of total tachistoscope errors, no significant differences occurred. However, when the direction of errors was considered, and when previous experience on the stereoscope was controlled, Psychopaths committed significantly more low socialized errors than Neurotics, and Neurotics significantly more high socialized errors than Psychopaths. When perceptual consistency was defined in terms of greater internal consistency of perception, Psychopaths achieved greater perceptual consistency.

Extraversion

Hypothesis 7 predicted that Psychopaths would score higher on Extraversion than would Neurotics. The Extraversion measure was obtained from the Maudsley Personality Inventory and the mean scores for all groups are presented in Table 10.

For Negroes, Whites, and Both Races, Psychopaths obtained higher mean Extraversion scores than Neurotics. The White Psychopath increment was 2.00, the Negro Psychopath 4.91, and All Psychopaths 3.46. Only the difference between All Psychopaths and All Neurotics proved significant on a

Table 9

Internal Consistency Scores of Stereoscope Choices

(Kuder-Richardson$_{20}$)

Group	Variance	Σpq	Rtt
Neurotics	3.379	2.567	.262
Psychopaths	3.799	2.250	.444

Table 10

Mean Scores on Maudsley Personality Inventory

Extraversion

	Psychopaths	Neurotics	Diff.	t
White	26.17	24.17	2.00	.778
Negro	29.33	24.42	4.91	1.687
Both Races	27.75	24.29	3.46	1.796*

*Significant at the .05 level.

one tail t test for matched groups ($p < .05$). The null hypothesis that the groups do not differ on Extraversion may be rejected.

Interrelationships Among Variables

Table 11 presents product moment correlations among selected scoring variables. The two measures of impulse socialization, the TAT Drive Socialization Index and the percentage of high socialized stereoscope choices, correlated .110, which was not significant. A negative correlation was expected between the percentage of high socialized stereoscope choices and Extraversion since high scores on the former occurred more frequently for Neurotics, and high scores on the latter occurred more frequently for Psychopaths. The correlation of -.146 was thus in accord with expectations, although it was not significant.

Finally the TAT Drive Integration Index, the only TAT variable which significantly discriminated Psychopaths from Neurotics, was correlated with the other two variables which were also significant discriminators. The correlation between Drive Integration and Extraversion was .099, which was not significant. Drive Integration and high socialized stereoscope choices correlated -.236 which was significant at the .05 level.

A correlation was also calculated between the high socialized stereoscope scores of each matched pair of subjects. Since the members of each pair were matched on race,

Table 11

Product Moment Correlations of Selected Scoring Variables

Item	Percentage of High Socialized Stereoscope	Extraversion
Socialization (TAT Index)	+.110	
Integration (TAT Index)	-.236*	+.099
Extraversion	-.146	

*Significant at the .05 level.

age, I.Q., and time served, a relatively high correlation would be expected between their scores if these variables were significantly related to stereoscope performance. The product moment correlation was -.133 which suggests that the matching variables were not correlated with stereoscope performance.

CHAPTER V

DISCUSSION

Impulse Socialization

The results of the impulse socialization hypotheses were mixed. When impulse socialization was defined as higher scores on the TAT Drive Socialization Index, no significant differences were obtained between Neurotics and Psychopaths. However, when high socialized choices on the stereoscope were used as the measure of impulse socialization, Psychopaths scored significantly lower.

The failure of the TAT to produce significant results (while the stereoscope was sensitive to differences) may be attributed to a number of causes. The TAT and stereoscope are not equivalent instruments in the sense that the TAT is primarily a measure of fantasy and the stereoscope a measure of perception. As Bartley has pointed out, ". . .perception is the immediate response of the organism to the energy impinging on sense organs" (1958, p. 23). The stereoscope qualifies as a perceptual instrument since the observer has no opportunity for interpretation or conscious selection of the stimuli. Responding to TAT cards, however, provides greater opportunity for evaluation,

judgment, censorship, control, and other cortical activities which are nonperceptual. It is possible, therefore, that some subjects may have guarded or defended their TAT responses and "reported only what they wanted to." Because there is no way of assessing the overall extent of defensiveness or the degree to which this may have occurred in the two groups, the results cannot be explained on this basis alone.

A second factor which may have influenced the results also resides in the fantasy nature of the TAT test. Feshbach (1958) has reviewed studies which showed that fantasy can act to reduce the strength of a motive or need by means of symbolic satisfaction. Specifically the contention is that the fantasy expression of a drive represents a substitute or compensatory function. It is possible that Neurotics do not act out their impulses, in part, because they are able to substitute direct satisfaction of their drives via fantasy. However, if this explanation were potent, significantly <u>lower</u> Socialization Index Scores for Neurotics would have been expected rather than the negligible differences which were found between the two groups. An explanation is still needed to account for the fact that the Neurotics and Psychopaths differed on both behavioral criteria and perceptual indices of socialization, but not on the TAT measures used here.

It is possible that it is not the TAT which is

unable to adequately measure socialization, but rather the particular scoring scheme which was employed. It is difficult to evaluate the TAT's efficacy in measuring impulse socialization since there is almost a complete lack of previous research in this area. Shelley (1959) reviewed the literature and was able to find only three TAT studies dealing with criminal populations as of 1959. None of these were adequate experimental studies, and none have been reported since, with the exception of the Shelley study (1959). The only evidence that the TAT is sensitive to degrees of impulse socialization is provided by Shelley's study. Using a system of scoring for number of antisocial themes, Shelley found that antisocial responses decreased as a function of young offenders' experiences in a minimum security setting. A greater decrease in antisocial responses occurred for those offenders who had organized counseling as opposed to those who had not had such experience. Furthermore, decrease in antisocial responses was found to be positively associated with future parole success. Although the population Shelley studied, i.e., "good-risk," young, first offenders, is not comparable to the population in the present study, he was able to show at least that the TAT was sensitive to changes in impulse socialization. Therefore, it seems quite likely that the Pine system used in the present study possesses more culpability than the TAT, itself. Previous to this study, the Pine (1960) method of measuring impulse

socialization was never subjected to the kind of construct validity test provided by predicting scores of groups with known degrees of impulse socialization. Pine's results are applicable only to "normal" college undergraduates upon whom the method was validated. The present study raises serious questions regarding the applicability of the method to pathologic groups as well as doubts concerning the internal consistency of the scoring method. Of the three scoring categories used in the present study, only Drive Integration provided reasonable internal reliability.

The stereoscopic measurement of impulse socialization provided more positive results. Not only did the stereoscope test as a whole discriminate Psychopaths from Neurotics, but to a degree several of the individual stereograms were effective discriminators.

Previous research has shown that "violent-neutral" slide pairs resulted in significantly more violent perceptions by inmates who subsequently developed into disciplinary problems (Shelley and Toch, 1962), and by inmates with extensive assaultive histories (Putoff, 1962). The "aggressive," "poorly adjusted" subjects in these studies were likely more heavily weighted on our "psychopathy" criteria than on our "neurotic" selection criteria. The "unsocialized" slides in these studies were "violent" ones, but in the present study the two slides which attain the highest significance are the "Lover" and "Glutton" slides. Violence does

not appear to be the underlying motive behind the content of these slides. Thus, a variety of aggressive and libidinal drives, e.g., sex, orality, and violence, may occupy a higher priority in the perception of extraverted, psychopathic criminals than in inhibited, neurotic criminals. The data therefore suggests that the perception of impulse content is general to a variety of impulse themes, and not restricted to aggression or violence.

Another interesting facet of the stereoscope results is the relatively high number of unsocialized slides perceived by both groups. Psychopaths selected 61% low-socialized slides and Neurotics 42%. On similarly constructed stereograms (violent-nonviolent) a "normal" control group of college students selected 22% low-socialized slides (Toch and Schulte, 1961). Since both the Neurotics and Psychopaths perceived appreciably more impulsive-content slides than "normals," it would suggest that Neurotics and Psychopaths are not the polar extremes of a socialized-unsocialized continuum. Rather, the data would suggest that Neurotics and Psychopaths are the midpoint and one endpoint, respectively, of a continuum ranging from socialized and well-controlled, through unsocialized and moderately controlled, to unsocialized and uncontrolled. In order to verify such a relationship systematically, an investigation using "normals," Neurotics, and Psychopaths, all tested on the same stereograms, would have to be conducted. Gough (1960) has suggested that

any meaningful scale of socialization must be continuous rather than dichotomous. A scale or theory of socialization which applies only to the extremes is incomplete until various points along the dimension can be located.

However, insofar as the present study is concerned, Psychopaths were shown to perceive more impulsive content than Neurotics. The relationship between behavior and perception is thus explicit, since one of the major selection criteria was "amount of acting out in the institution." The Psychopathic inmates participated in more fights, sex acts, drinking, food-stealing, etc.; they also perceived more slides dealing with the drives assumed to be connected with such behavior (aggression, sex, orality, etc.). It seems possible therefore that one of the prerequisites for unsocialized behavior is the perception of the environment as a "supermarket" of unsocialized opportunities.

There are at least two ways to interpret this relationship between behavior and perception. First, since the subjects were highly select in terms of presence or absence of a <u>variety</u> of impulse areas, it is possible that their stereoscope performances reflected a summation of separate drives. A second interpretation would hold that some general, rather than specific, process was operant and cut across content areas. The data on ego syntonicity which follows present one possible interpretation of the results in terms of a generalized process.

Ego Syntonicity

One of the basic clinical assumptions about persons who easily and readily express impulses directly is that impulse expression is ego syntonic for these persons (Eliasoph, 1962; Van Evra and Rosenberg, 1963). In other words, it would be expected that blatantly unsocialized persons should show higher degrees of drive integration. Such was the finding when ego syntonicity was defined in terms of the TAT Integration Index, but not when the TAT Number of Drive Content was used. On the Integration Index, Psychopaths scored significantly higher than Neurotics, but only negligible differences between the two groups were found on Number of Drive Content.

The explanations above for the results of the TAT Drive Socialization Index may very well apply to the Number of Drive Content results. How "much" drive a person is willing to reveal when responding to TAT cards is probably related to how many "unsocialized" drives he is willing to describe. Similarly if amount of direct drive expression can be dissipated by fantasy, then it is also likely that the degree of drive socialization may also be spent through fantasy. Finally, the questionable validity of Pine's socialization scoring system is also applicable to his drive content scoring system. Not only did the Drive Content scoring system fail to distinguish the two groups, but the internal reliability of this category was also unsatisfactory.

One final possibility is that the degree of syntonicity or personal acceptability of drives is not reflected in the number of drives which are reported in response to TAT cards.

Pine's only scoring category which did provide significant results was the Drive Integration Index, which is independent of Drive Number and Socialization scores. Opportunities for defensiveness in this scoring category did not exist, since it is unlikely that subjects knew they were being evaluated for their ability to integrate thematic materials, as they might have been aware of the examiner's interest in antisocial responses. Furthermore, there is less reason to believe that fantasy behavior has any specific effect upon the degree of integration of drives, as it does on the number or socialization of drives.

In order for a person to continuously and openly express his drives, he must be either grossly out of contact with reality or possess minimal internal control. The Psychopaths clearly fit the second category. These subjects not only express their impulses when external controls are absent, but persist in expressing them while under severe and restricted confinement. This would suggest that not only are their controls extremely meager, but that "they can see nothing wrong with doing what they feel like." On another level this also means that the impulses and motives behind this behavior are acceptable to the individual. They

are, in other words, ego syntonic, part of himself, and not subject to personal evaluation or censure. Similarly when the Psychopaths project stories in response to TAT cards, they incorporate and integrate the impulse content into the stories much as they do in their own lives. This high degree of integration leaves little room for change, since change has to occur not for some isolated, compartmentalized bits of behavior, but for a whole person.

Ego Flexibility

The ability to change is a function of the degree of ego flexibility which the individual possesses. For example, if a person's perception is so rigid and intractable that it does not change even when stimuli change, it would be expected that his ability to alter his behavior would also be severely restricted. Psychopaths retain their behavior patterns in spite of extreme measures calculated by society to cause them to change. It would be expected that Psychopaths would demonstrate greater ego inflexibility than Neurotics who do show some ability to change, e.g., better response to psychotherapy, changes in symptom formations, etc.

On the tachistoscope test Psychopaths committed significantly more low-socialized errors and Neurotics significantly more high-socialized errors. This difference appears to be a direct consequence of the subjects' previous experience on the stereoscope. Thus, since Neurotics perceived

significantly more high-socialized slides on the stereoscope, their tendency to continue to report high socialized slides on the tachistoscope (even when the tachistoscopic stimuli were low-socialized) appears to reflect their stereoscopic experience. Conversely, Psychopaths continued to report low-socialized percepts on the tachistoscope responsive to the high-socialized slides, reflecting their greater stereoscope experience with low-socialized slides.

The effects of experience on perception were also discerned when the first and second series of the stereoscope results were separately analyzed. Both Neurotics and Psychopaths perceived significantly more low-socialized slides with the second series of presentations than they had with the first. It seems plausible that experience with uncommon low-socialized percepts in Series I was reflected in heightened perception of these stimuli in Series II. Both the tachistoscope results discussed above and the analysis of stereoscope results by series lend support to the contention that experience increases the tendency to perceive impulsive-content stimuli.

An opportunity for equating the effects of previous experience was presented in the case of subjects who had perceived one low and one high socialized slide in the stereoscope. Under these conditions Psychopaths still persisted in perceiving significantly more low-socialized slides than did the Neurotics. Apparently this characteristic is

strong enough or general enough that it operates both when a perceptual choice is available (stereoscope) or when a perceptual distortion situation is available (tachistoscope). In other words, not only is the perception of Psychopaths more sensitized towards impulse content, but such perception is exaggerated in situations similar to those having impulse content. Some mechanism appears to be operating whereby Psychopaths can attribute their own involvement with impulses onto the environment. Conversely, it is also possible that Neurotics utilize some denial mechanism when dealing with stimuli of an impulsive nature.

Although the insignificant results between groups in total number of errors may be attributed to no differences in ego flexibility, it is more likely that the operational definition of ego flexibility was inappropriate. Support for this explanation of the results is provided by the internal consistency data. In other words, when ego inflexibility was defined as higher internal consistency scores on the stereoscope, Psychopaths did demonstrate greater perceptual consistency than Neurotics. It would of course be interesting to ascertain how a control group of normals would compare on total errors with Psychopaths and Neurotics. If the argument advanced on behalf of the stereoscope data is correct, i.e., if Neurotics and Psychopaths are the midpoint and one endpoint of a socialization continuum, then it might also be expected that they both commit more errors than

normals who represent the other endpoint.

One area where it was possible to compare the results of the present study with that achieved by normals was the standardized administration of Eysenck's Extraversion scale. Normative data from a variety of clinical and "normal" groups have been reported in the literature.

Extraversion

Two assumptions concerning the relationship between criminality and extraversion have received support in the literature. One position maintains that criminals tend towards being extraverted, and noncriminals tend towards being introverted and neurotic (Cassel and Harriman, 1959; Glueck and Glueck, 1950; 1956). Another position holds that criminals are not drawn from a homogeneous population in relation to extraversion and neuroticism, but are bimodally distributed on these variables (Miller, 1956; Peterson, Quay, and Tiffany, 1961, Rodger, 1948). This first assumption cannot be tested adequately in this study because the present population is not a "criminal" one, but a "prisoner" one, and even among the prisoners the sample was not randomly selected. The relationship, however, between selected types of incarcerated criminals and nonincarcerated populations can be examined. The data can also be inspected to show whether two highly select and specialized groups of inmates with respect to extraversion and introversion can be selected from a total prison population.

Two Types of Prisoners

Bartholomew (1959) has contended that psychopaths and recidivists should score higher on extraversion than inmates without such demonstrated incidence of acting out. The present data bears this assumption out for psychopaths. Negro, White, and All Psychopaths obtained higher mean Extraversion scores than their Neurotic counterparts. Although the difference was greatest between Negro Psychopaths and Neurotics, only the difference between All Psychopaths and All Neurotics achieved statistical significance. On the basis of Extraversion scores it is possible therefore to discriminate extraverted and introverted prisoners when these specialized groups are preselected.

The Glueck and Glueck (1950; 1956) contention that criminals are more extraverted and less introverted and neurotic than noncriminals cannot be borne out by the present data. In fact, the mean Extraversion score of American "normals" is higher than the means for the criminal groups of Neurotics, Psychopaths, or All Subjects. Although the data do not provide a crucial test for the Gluecks' assumptions regarding introversion and extraversion, doubt may be cast upon their generality.

Some striking differences occurred between Negroes and Whites on the Extraversion scale. The possible relationship between ethnic background and all experimental variables merits examination.

Racial Differences

Although the possible effect of racial differences was controlled by matching subjects on race, differences did occur on some tests between Negroes and Whites. On every experimental measure which produced significant differences between Psychopaths and Neurotics, the differences were greater for the Negro pairs than for the White pairs. This accentuated difference between Negro Neurotics and Negro Psychopaths occurred on the stereoscope measure of high socialized choice, the TAT Drive Integration Index, and the Eysenck measure of Extraversion.

It seems that Negroes' results conformed more closely to the hypotheses than the results for White subjects. One possible explanation is that the Negro groups were more widely separated on the operational definitions of neurosis and psychopathy. For example, if neurotic symptomatology among Negro inmates is more rare than among White inmates, then applying identical criteria to the selection of subjects of both races would lead to the selection of more extreme cases of Negro Neurotics. A survey was conducted on racial prevalence of neurotic disorders at SPSM. When all cases diagnosed as "neurotic" at both the Reception Center and Psychiatric Clinic were tabulated, it was found that 70% of these inmates were White and 30% Negro according to Reception Center diagnoses; 68% were White and 32% Negro according to Psychiatric Clinic diagnoses. The relative

percentages of Negroes and Whites at SPSM, however, were 46.6% and 51.6% respectively. Conclusions that can be drawn from this survey are very limited since uncontrolled diagnostician biases may exist as has been shown by Hollingshead and Redlich (1958). Furthermore, these results have no direct applicability to racial prevalence of types of mental illness in society, due to the specialized nature of the sample being dealt with here. Nevertheless, the results of the Negro Neurotics and Psychopaths in the present study show greater differences than do the results of White Neurotics and Psychopaths.

Intercorrelations Among Variables

Intercorrelations were computed among each of the scoring variables which produced significant results. The only significant correlation was between the TAT Integration Index and the percentage of high socialized stereoscope choices. The low but significant correlation was negative since high scores on the former occurred more frequently for Psychopaths while high scores on the latter occurred more frequently for Neurotics. Based on this correlation, a strong argument cannot be made for low socialized perception being a function of integration, due to the low magnitude of the correlation (-.236). However, to some extent at least, some of the same processes which dispose towards low-socialized perception may be operative in the integration of drives. One possible interpretation might contend that if an

individual's impulses are ego syntonic or integrated, then unsocialized percepts may operate by virtue of the lack of personal controls against such perception. This assumption has been advocated by Eliasoph (1962) and Van Evra and Rosenberg (1963). The present data offers some additional support for this contention.

None of the other scoring variables were significantly correlated with each other. In the case of the relationship between stereoscope choices and Extraversion, it is likely that relatively independent psychological processes were being measured. In the case of the TAT indices of Drive Number and Drive Socialization, it is impossible to say exactly what the negligible correlations mean. Since neither of these measures were shown to have any reasonable internal consistency, there is no evidence that they effectively measure anything, and thus correlations with other scoring measures would not necessarily be expected.

Suggestions for Further Research

Although this study was primarily concerned with the investigation of some personality attributes of two specialized groups of prisoners, it still leaves certain obvious questions about these attributes unanswered.

According to roughly comparable data[10] on "normals,"

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[10]Since the stereograms in the study of "normals" (Toch and Schulte, 1961) were violent-nonviolent pairs, and in the present study were low socialized-high socialized pairs, it is difficult to estimate how comparable the two studies are.

both the Psychopaths and Neurotics appeared to have perceived an inordinately large number of low-socialized slides. An argument was presented that prison Neurotics and Psychopaths may not represent the extremes on this dimension of perception, but rather the midpoint and endpoint, with normals occupying the other endpoint, i.e., the most socialized perception group. A similar position was taken in regard to the data on ego inflexibility as measured by tachistoscopic errors. In order for meaningful assessment of these two types of prisoners, a study of the performance of "normals" on an identical set of stereograms should be conducted. It would be of further interest to conceptualize a socialization continuum based not only upon psychopathic and neurotic criminals and normals, but also on "well-adjusted" criminals, and criminals who are not incarcerated.

Since the stereoscope test has been shown to effectively discriminate future disciplinary problems (Shelley and Toch, 1962), inmates with extensive assaultive histories (Putoff, 1962), and now inmates with psychopathic characteristics, further studies specifically designed to investigate the predictive validity of the instrument are in order. Such studies might relate stereoscope performance to a variety of institutional adjustment indices as well as to parole success.

From the clinical psychologist's point of view, the possible relationship between both stereoscope performance

and integration scores and success in psychotherapy provides another interesting area of study. The California Department of Corrections has undertaken a large scale project calculated to investigate the psychological characteristics of various offender types and amenability to different treatment programs within and outside the prison (Grant, 1962). Since much data has already been accumulated in the California studies, it would be interesting to see how different types of California wards vary on the dimensions in this study. Such questions as the relationship between the California classification of "maturity" types to the types used in this study may provoke interesting hypotheses concerning the psychological and social dynamics of offender types.

Finally, there seems little reason to apply any further the Number of Drive or Drive Socialization scoring systems to criminal groups. However, any investigators interested in these scoring systems should critically evaluate the internal reliability and construct validity of these scales. One possible investigation might apply these scales to other groups of known degrees of socialization, e.g., over-achievers, "model" citizens, delinquent groups, etc.

Appendix A

MMPI T Scores and Number of Disciplinary Violations or Triple 0 Segregation Status

Psychopaths

Subject #	Hs	D	Hy	Pd	Violations
20	49	60	52	88	1 & Triple 0
28	45	60	40	79	Triple 0
21	59	60	60	83	Triple 0
15	57	60	58	86	2 & Triple 0
34	58	58	58	70	2 & Triple 0
51	44	57	51	71	Triple 0
22	58	60	60	79	2 & Triple 0
38	48	51	49	74	1 & Triple 0
29	52	56	55	90	Triple 0
44	49	60	55	71	2
35	52	45	60	71	3
1	52	60	48	76	4
18	45	58	55	75	2 & Triple 0
33	48	58	45	75	2
60	31	48	55	78	Triple 0
43	41	51	43	76	2 & Triple
31	48	51	48	75	3
36	58	60	49	102	Triple
57	48	58	55	83	3 & Triple
45	39	56	45	81	Triple 0

Appendix A (Continued)

Psychopaths

Subject #	Hs	D	Hy	Pd	Violations
5	57	60	58	79	Triple 0
39	52	53	49	76	Triple 0
48	42	60	55	75	2
47	57	58	60	86	Triple 0
58	57	60	56	79	Triple 0
50	49	44	64	90	2 & Triple 0
54	39	48	42	76	Triple 0
26	47	60	53	71	3
59	41	45	45	82	Triple 0
14	54	60	56	74	3

Neurotics

3	70	77	74	83	0
8	82	80	73	69	0
23	110	90	95	71	0
7	75	70	71	83	0
16	85	80	93	86	0
37	100	70	82	65	0
4	70	70	78	82	0
46	90	77	82	79	0
17	82	83	80	81	0
30	67	70	71	60	0

Appendix A (Continued)

Neurotics

Subject #	Hs	D	Hy	Pd	Violations
9	82	70	71	68	0
32	77	72	70	86	0
25	74	72	82	88	0
42	70	77	70	74	0
11	70	78	76	75	0
10	70	72	77	79	0
40	78	65	78	60	0
56	85	87	78	82	0
13	85	87	82	72	0
41	72	70	71	64	0
19	77	87	75	81	0
55	70	77	71	73	0
27	95	85	85	75	0
2	75	77	71	64	0
6	90	80	80	83	0
49	72	77	73	69	0
24	78	80	78	90	0
12	80	82	73	88	0
52	62	72	73	60	0
53	70	70	80	70	0

Appendix B

Ranges and Means of Neurotic Triad (Hs, D, Hy) and Psychopathic Deviate (Pd) Scores

Scale	Neurotic	Psychopathic	Diff.	t
Hs Range	62-110	31-59		
Hs Mean	78.77	49.20	29.57	12.37**
D Range	70-90	44-60		
D Mean	76.80	55.83	20.97	12.52**
Hy Range	70-95	40-64		
Hy Mean	77.10	52.63	24.47	14.40**
Pd Range	60-90	70-102		
Pd Mean	75.33	79.03	3.70	1.83*

*Significant at .05 level.

**Significant at .01 level.

Appendix C

Ranges and Means of MMPI Scales[a]

Scale	Neurotic		Psychopathic	
	Range	Mean	Range	Mean
L	36-66	51.60	36-60	48.36
F	44-72	58.76	46-70	56.57
K	42-82	57.20	40-72	57.00
Mf	43-74	58.64	41-76	55.54
Pa	44-91	61.76	38-67	55.21
Pt	46-85	65.72	48-66	56.36
Sc	50-80	64.40	42-74	57.75
Ma	40-78	58.16	40-91	64.93
Si	38-77	54.80	40-72	46.50

[a]Ranges and means for Hs, D, Hy, and Pd are presented in Appendix B.

Appendix D

Behavior Check List

Directions: Circle the (X) next to each item which applies to the inmate. Information is based on the inmate's main folder and disciplinary behavior during the present sentence.

N Group		P Group	
X	No tickets during the previous year	X	2 or more tickets during previous year #_____ _____
X	Characteristically anxious	X	Not anxious
X	Other neurotic symptoms (Physical complaints with no organic findings, phobias, tics, dissociative episodes)	X	No neurotic symptoms
X	Usually shy, introverted, withdrawn	X	Bold, extraverted, manipulative
	_____		_____
	Score ( )		Score ( )

Appendix E

Types of Felonious Offenses[a] For Both Groups[b]

Type	Neurotics	Psychopaths
Assault Less than Murder	1	2
Assault to Rob While Armed	5	1
Assault with Intent to Rape	0	2
Attempted Breaking & Entering an Auto	0	3
Attempted Breaking & Entering in the Daytime	1	0
Attempted Breaking & Entering in the Nighttime	0	2
Attempted Larceny in a store	3	0
Attempted Uttering & Publishing	0	1
Breaking & Entering an Auto	3	4
Breaking & Entering in the Daytime	3	7
Breaking & Entering in the Nighttime	8	13
Carrying concealed weapons	0	1
Escaping Prison	1	3
False Pretenses	1	0
Felonious Assault	0	2
Felonious Assault with Intent to Commit Murder	0	1
Forgery	2	1
Grand Larceny	1	0

Appendix E (Continued)

Type	Neurotics	Psychopaths
Indecent Liberties	0	4
Kidnapping	1	0
Larceny from a Building	3	0
Larceny from a Motor Vehicle	0	1
Larceny from a Person	0	2
Larceny from a Store	0	1
Larceny in a Dwelling	0	4
Manslaughter	1	0
Murder, Second Degree	2	0
Possession of Burglary Tools	1	0
Rape	2	2
Receiving Stolen Property	1	1
Robbery Armed	6	5
Robbery Unarmed	2	1
Statutory Rape	0	3
Unlawfully Driving Away an Auto	1	2
Uttering & Publishing	2	2
Violation of the State Check Law	2	1
Violation of the State Drug Law	6	7

[a]Includes present offense and previous felony convictions.

[b]According to FBI arrest records, the neurotic subjects had 24 previous felony convictions and the psychopathic subjects 49.

Appendix F

Distribution of Race, Age, I.Q., and Time Served on Present Sentence[a] for Matched Pairs of Neurotics and Psychopaths[b]

Subject #	Race	Age	I.Q.	Time
5	W	27	97	2-2
49	Mex	28	95	1-1
35	W	28	125	0-11
19	W	30	117	1-8
50	W	21	106	1-3
12	W	26	114	0-10
26	W	21	96	0-11
6	W	25	89	1-3
36	W	27	80	3-11
25	W	29	72	5-1
45	W	29	117	2-5
37	W	30	117	2-4
14	W	29	97	3-3
46	W	32	107	3-9
51	W	29	110	3-1
4	W	28	114	2-6
18	W	34	131	1-9
24	W	38	126	1-1
28	W	35	103	2-3
52	W	36	106	0-10
47	W	37	104	1-6
13	W	37	100	1-10
39	W	29	85	1-9
7	W	32	79	1-4

Appendix F (Continued)

Subject #	Race	Age	I.Q.	Time
38	W	32	104	2-11
17	W	36	109	3-10
48	W	23	109	1-3
27	W	23	96	1-7
15	N	43	100	4-7
3	N	40	85	3-3
21	N	44	78	6-2
30	N	43	84	6-1
29	N	34	90	3-11
8	N	39	86	2-7
34	N	29	100	3-5
40	N	28	105	2-6
22	N	27	89	0-9
11	N	25	96	1-11
44	N	28	80	2-0
55	N	26	89	1-9
33	N	37	87	1-4
23	N	39	88	0-9
1	N	28	114	1-6
32	N	27	115	0-7
43	N	27	114	2-9
10	N	26	117	2-10
31	N	27	70	1-5
56	N	25	71	1-10
60	N	35	75	1-8
53	N	32	67	0-8
57	N	27	103	1-3
41	N	32	107	1-8

Appendix F (Continued)

Subject #	Race	Age	I.Q.	Time
58	N	33	110	2-1
9	N	28	95	1-3
54	N	26	96	4-4
42	N	22	92	2-10
59	N	29	108	1-8
2	N	24	95	1-2
20	N	40	97	1-6
16	N	43	87	2-8

[a]Time is expressed in years and months.

[b]Top member of a pair is a Psychopath and bottom member is a Neurotic.

Appendix G

Average Differences Between Matched Pairs of Neurotics and Psychopaths on Matching Variables

Race	Age(Years)	I.Q.(Points)	Time(Months)
Negro	2.81	6.63	9.38
White	2.21	5.93	7.71
Both Races	2.53	6.30	8.60

Appendix H

Mean Age, I.Q., and Time Served on Present Sentence for Matched Pairs of Neurotics and Psychopaths

Age

Race	Neurotics	Psychopaths	Diff.	t
Negro	31.19	32.13	.94	1.19
White	30.71	28.64	2.07	4.26**
Both Races	30.97	30.50	.47	.88

I.Q.

Race	Neurotics	Psychopaths	Diff.	t
Negro	92.44	94.44	2.00	.995
White	102.93	104.00	1.07	.545
Both Races	97.33	99.17	1.84	1.363

Appendix H (Continued)

Time Served on Present Sentence (Months)

Race	Neurotics	Psychopaths	Diff.	t
Negro	25.88	30.25	4.37	1.727
White	25.14	25.00	.14	.063
Both Races	25.33	27.60	2.27	1.272

*Significant at .05 level.

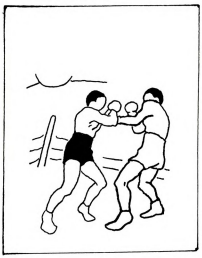
**Significant at .01 level.

Appendix I

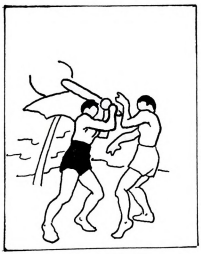
Sample Stereogram

(Boxer-Brawler)

Boxer



Brawler



Appendix J

NAME _____ # _____

GROUP _____ H.S. _____ L.S. _____ _____

SERIES I

LEFT EYE		RIGHT EYE		OTHER OBSERVATIONS (FUSION, ETC.)
1. Bride	____	1B. Lover	____	_____
2B. Stripteaser	____	2. Singer	____	_____
3. Coffee Drinker	____	3B. Beer Drinker	____	_____
4B. Glutton	____	4. Diner	____	_____
5. Dancer	____	5B. Raper	____	_____
6B. Brawler	____	6. Boxer	____	_____

SERIES II

1B. Lover	____	1. Bride	____	_____
2. Singer	____	2B. Stripteaser	____	_____
3B. Beer Drinker	____	3. Coffee Drinker	____	_____
4. Diner	____	4B. Glutton	____	_____
5B. Raper	____	5. Dancer	____	_____
6. Boxer	____	6B. Brawler	____	_____

Appendix K

SERIES III

A	Bride-Bride:	Bride	____	Lover	____
B	Lover-Lover:	Lover	____	Bride	____
C	Stripteaser-stripteaser:	Stripteaser	____	Singer	____
D	Singer-Singer:	Singer	____	Stripteaser	____
E	Coffee drinker-Coffee Drinker:	Coffee Drinker	____	Beer Drinker	____
F	Beer drinker-Beer drinker:	Beer drinker	____	Coffee drinker	____
G	Glutton-Glutton	Glutton	____	Diner	____
H	Diner-Diner:	Diner	____	Glutton	____
I	Boxer-Boxer:	Boxer	____	Brawler	____
J	Brawler-Brawler:	Brawler	____	Boxer	____

S.C. _____ D.C._____ _____

Observations: _____

_____

_____

Appendix L

Maudsley Personality Inventory

NAME _____ NUMBER _____

DATE _____ AGE _____ SEX _____

INSTRUCTIONS

Here are some questions regarding the ways you behave, feel and act. After each question there is a "yes," a "?" and a "no."

Try and decide whether "yes" or "no" represents your usual way of acting or feeling; then put a circle around the "yes" or "no." If you find it absolutely impossible to decide, put a circle around the "?", but do not use this answer except very occasionally. Work quickly, and don't spend too much time over any question; we want your first reaction, not a long drawnout process! The whole questionnaire shouldn't take more than a few minutes. Be sure not to omit any questions. Now go ahead, work quickly, and remember to answer EVERY question. There are no right or wrong answers, and this isn't a test of intelligence or ability, but simply a measure of the way you behave.

1. Are you happiest when you get involved in some project that calls for rapid action . . . . . Yes ? no

2. Do you sometimes feel happy, sometimes depressed, without any apparent reason? . . . . . Yes ? no

3. Does your mind often wander while you are trying to concentrate? . . . . . yes ? no

4. Do you usually take the initiative in making new friends? . . . . . yes ? no

5. Are you inclined to be quick and sure in your actions? . . . . . yes ? no

6. Are you frequently "lost in thought" even when you are supposed to be taking part in a conversation? yes ? no

7. Are you sometimes bubbling over with energy and sometimes very sluggish? . . . . . yes ? no

8. Are you inclined to be overconscientious? . yes ? no

Appendix L (Continued)

9. Would you rate yourself as a lively individual? yes ? no

10. Would you be very unhappy if you were prevented from making numerous social contacts? . . . . yes ? no

11. Are you inclined to be moody? . . . . . yes ? no

12. Do you have frequent ups and downs in mood, either with or without apparent cause? . . . . . yes ? no

13. Do you prefer action to planning for action? yes ? no

14. Are you inclined to keep in the background on occasions? . . . . . yes ? no

15. Are your daydreams frequently about things that can never come true? . . . . . yes ? no

16. Are you inclined to ponder over your past? yes ? no

17. Do you ever feel "just miserable" for no good reason at all? . . . . . yes ? no

18. Is it difficult to "lose yourself" even at a lively party? . . . . . yes ? no

19. Do you often find that you have made up your mind too late? . . . . . yes ? no

20. Do you like to mix socially with people?. . yes ? no

21. Have you often lost sleep over your worries? yes ? no

22. Are you inclined to limit your acquaintances to a select few? . . . . . yes ? no

23. Are you often troubled about feelings of guilt? . . . . . yes ? no

24. Do you ever take your work as if it were a matter of life or death? . . . . . yes ? no

25. Are your feelings rather easily hurt? . . . yes ? no

26. Do you like to have many social engagements? yes ? no

27. Would you rate yourself as a tense or "highly-strung" individual? . . . . . yes ? no

Appendix L (Continued)

28. Do you generally prefer to take the lead in group activities? . . . . . yes ? no

29. Do you often experience periods of loneliness? . . . . . yes ? no

30. Are you inclined to be shy in the presence of the opposite sex? . . . . . yes ? no

31. Do you like to indulge in reverie (day-dreaming)?. . . . . yes ? no

32. Do you nearly always have a "ready answer" for remarks directed at you? . . . . . yes ? no

33. Do you spend much time in thinking over good times you have had in the past? . . . . . yes ? no

34. Would you rate yourself as a happy-go-lucky individual? . . . . . yes ? no

35. Have you often felt listless and tired for no good reason? . . . . . yes ? no

36. Are you inclined to keep quiet when out in social group? . . . . . yes ? no

37. After a critical moment is over, do you usually think of something you should have done but failed to do? . . . . . yes ? no

38. Can you usually let yourself go and have a hilariously good time at a gay party? . . . yes ? no

39. Do ideas run through your head so that you cannot sleep? . . . . . yes ? no

40. Do you like work that requires considerable attention?. . . . . yes ? no

41. Have you ever been bothered by having a useless thought come into your mind repeatedly? yes ? no

42. Are you inclined to take your work casually, that is as a matter of course? . . . . . yes ? no

43. Are you touchy on various subjects?. . . . yes ? no

Appendix L (Continued)

44. Do other people regard you as a lively individual? . . . . . .yes ? no

45. Do you often feel disgruntled? . . . . . yes ? no

46. Would you rate yourself as a talkative individual? . . . . . yes ? no

47. Do you like to play pranks upon others? . . yes ? no

48. Do you have periods of such great restlessness that you cannot sit long in a chair? . yes ? no

APPENDIX M (with permission of Paul F.C. Mueller)

(Table 1 in Mueller, 1958)

COMMON DELINQUENT TYPES APPEARING IN FOURTEEN CLASSIFICATORY SYSTEMS

AUTHOR	(YEAR)	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	TYPE VI
JENKINS & GLICKMAN	(1947)	Emotionally disturbed delinquent A. Over inhibited B. Emotionally disturbed	Socialized delinquent	unsocialized aggressive delinquent			
TOPPING	(1941) (1943)		Pseudo-Social boy	Aggressive delinquent			
HIRSCHENBERG	(1947)	A. Overinhibited	Socialized Delinquent	Asocial aggressive			
BECK	(1954)	Neurotic delinquent A. Compulsive	Socialized delinquent	Asocial aggressive			
BLOCH & FLYNN	(1956)	A. Acting out neurotic B. Self-centered individual	Cultural deviant	Unsocialized aggressor			

Appendix M (Continued)

ALEXANDER	(1931)	Neurotic criminal	Normal or genuine criminal		Accidental	Organic pathology
EDELSTON	(1952)	Neurotically determined behavior A. Compulsion B. Neurotic reaction	Anti-social behavior based on environmental problems	Character defects psychopathic and infantile	Benign delinquencies	Anti-social behavior due to bodily defect
ARGOW	(1943)	Inadequate behavior controls A. Compulsion B. Immature	Associated learning syndrome	Compensatory syndrome	Situationally prevoked syndrome (accidental)	Mental deficiency
LINDESMITH & Dunham	(1941)	Individualized criminal A. Compulsive	Social Criminal--habitual	Individualized Psychotic criminal	Accidental	
SANFORD	(1943)	Impulse addicted A. Compulsive	Anti-social	Asocial	Pre-social	

Appendix M (Continued)

TAPPAN	(1949)	Neurotic delinquent A. Poor Ego B. Emotionally disturbed	Normal or chronic delinquent	Psychopathic delinquent	Psychotic	Acute criminal (accidental)	
REDL	(1955)	Neurotic afflictions A. Anxiety neurosis B. Temper tantrums reaction toughness	Genuine delinquent super-ego disturbance	Severe impulse disturbances in aggression	Schizo-phrenic		Defense against trauma
REISS	(1951-1952)	Weak ego A. Insecure B. Immature	Relatively defective super-ego control	Weak ego highly aggressive and hostile		Relatively integrated	
FRIEDLANDER	(1947)	Neurotic criminal A. Internal conflict B. 'Acting out'	True Criminal	anti-social character aggressive youth Psychopathic boy	Psychotic	Puberty offender	Organic

Appendix N

Scoring Reliability of TAT Stories

(Product moment correlations)

Reliability	Number of Drive Content	Drive Socialization	Drive Integration Index
Inter-Judge[a]	.582*	.722**	.615*
Intra-Judge[b]	.164	.242	.518**

[a]N = 12 protocols.

[b]N = 60 protocols.

*Significant at the .05 level.

**Significant at the .01 level.

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