1973

The Expression of Aggression and the Need for Social Approval in Psychopathic, Neurotic and Subcultural Delinquents

Ernest John Lenz

Loyola University Chicago

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THE EXPRESSION OF AGGRESSION AND THE NEED FOR SOCIAL APPROVAL IN PSYCHOPATHIC, NEUROTIC AND SUBCULTURAL DELINQUENTS

by

Ernest J. Lenz, Jr.

A Dissertation Submitted to the Faculty of the Graduate School of Loyola University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

January 1973
THE EXPRESSION OF AGGRESSION AND THE NEED FOR SOCIAL APPROVAL IN PSYCHOPATHIC, NEUROTIC AND SUBCULTURAL DELINQUENTS

Ernest J. Lenz, Jr.
LOYOLA UNIVERSITY OF CHICAGO

Psychopathic, neurotic, and subcultural delinquents were measured on aggression, the need for approval and socialization. Two types of frustrations were devised to elicit aggression, arbitrary and nonarbitrary. Subsequent to the frustration procedures, subjects had the opportunity to aggress against the experimenter-frustrater on an "evaluation questionnaire." It was hypothesized that psychopathic delinquents would aggress significantly more than subcultural or neurotic delinquents. Further hypotheses concerning differences in the need for approval and socialization between the delinquent groups were made. The results lend support to the major hypothesis indicating that psychopathic delinquents express significantly more aggression than subcultural or neurotic delinquents under arbitrary conditions. Only a slight, nonsignificant difference was found between delinquent groups on the measures of the need for approval and socialization.
Ernest John Lenz was born in Brooklyn, New York on March 18, 1937. He graduated from Brooklyn Preparatory School in June, 1954. From 1955 to 1962, he served as an enlisted man in the Armed Forces, including duty as a Special Forces Medical Aidman. In 1965 he received the Bachelor of Science in Psychology from Loyola University, Chicago.

He returned to the Army and Special Forces Duty with a direct commission in the Medical Service Corps. In 1967 he was integrated into the Regular Army and promoted to his present rank of captain. In 1968 he was selected for graduate work in psychology by the Office of the Surgeon General, Department of the Army. He took his clerkship at the Charles F. Reed Zone, Chicago, and completed his internship in community psychology at the U.S. Army Hospital, Fort Ord, California. During the academic year 1970-71, he taught undergraduate courses at Loyola University in the rank of Lecturer of Psychology.
ACKNOWLEDGEMENTS

The author is primarily indebted and especially grateful to his advisor, Dr. William A. Hunt, for his interest in, support and encouragement of not only this research, but also his career as a graduate student. Gratitude is extended to Colonel Oliver E. O'Kier, Commandant, United States Disciplinary Barracks and his entire staff for the outstanding assistance the author received in undertaking and completing this project. Captain Robert C. Muschewske, Chief Psychologist, United States Disciplinary Barracks was especially helpful. The author also wishes to thank Captain Robert A. Jakes, R.O.T.C. Instructor, Loyola University, who acted as statistical consultant. Finally, the author wishes to express his gratitude to Doris Ann Lenz for her assistance, personal encouragement and understanding.
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Chapter I
Introduction

The investigator became interested in the problem of psychopathy and the problem of aggression as a result of clinical experience in a military setting. One of the most extensive clinical studies of psychopathy was undertaken by Cleckley (1950). He attempted to present a behavioral description of the psychopath as well as those traits which differentiate psychopathy from other behavior disorders. According to Cleckley, the psychopath makes a good impression on first appearance. He appears to be friendly, even humorous, and he professes agreement with all the social mores and moral standards of society. As the psychopath discusses his plans for the future, the listener is often impressed with his excellent reasoning ability and foresight.

However, the psychopath's verbal behavior and his actions seldom coincide. He usually has a long record of antisocial behavior which includes lying, swindling, and petty theft and may extend rarely to murder and sexual assault. His behavior usually indicates a callous, apathetic attitude towards the people he has harmed. He seems to exhibit a distinct lack of overt anxiety, often acting as if he were exempt from the consequences of his behavior. He does not appear to profit from the negative consequences of his actions, and he appears unable
or unwilling to achieve any close person relationships. He is generally a loner and seldom displays any loyalty to groups or causes.

Perhaps the most baffling aspect of the psychopath is the apparent lack of any cognitive or intellectual defects. In fact, he may be above average in intelligence and display a great deal of skill in manipulating other people, usually convincing them after some asocial act of his that he is truly sorry and will mend his ways, and sometimes does appear to be making a real effort. However, he is not able to maintain his performance and eventually does something which is injurious to both himself and the people who have been trying to help him. He usually does this in a manner which seems impulsive, short-sighted, and self-defeating.

Evidence (mostly clinical in nature) suggests that there is a higher rate of aggression among psychopaths than among normals and persons who have been diagnosed as belonging to other psychiatric categories. One longitudinal study in a military setting (Hunt, Wittson, & Hunt, 1952) showed that psychopaths had a significantly higher incidence of insubordination (a form of aggression) than normals or persons diagnosed as belonging to other psychiatric categories.

A question arises concerning the etiology of this aggression. Aggression is one of the manifestations of the inability to control impulsivity. Inability to control impulsivity is
frequently cited as a failure in social association in the developmental process. Gough (1948) who found it expedient to use a sociological approach in the analysis of the development process, hypothesized that the psychopath is deficient in role-playing abilities. According to Gough this deficiency in role-playing means the incapacity to look upon one's self as an object or to identify with another's point of view. Thus, Gough (1948) wrote:

The psychopath is unable to foresee the consequences of his own acts, especially their social implications, because he does not know how to judge his own behavior from another's standpoint. What might be called social emotions, such as embarrassment, discomfiture, loyalty, contrition, and gregariousness (group identification) are not experienced by the psychopath (p. 363).

When confronted with disapproval, the psychopath often expresses surprise and resentment. He cannot understand the reason for the observer's objection or disapprobation. The psychopath cannot grant the justice of punishment or deprivation, because this involves an evaluation of his behavior from the standpoint of the generalized other or society. The psychopath will violate the wishes and desires of others because he does not conceive of his actions as inimical to their wants. He forms no deep attachments because he does not know how to identify himself with another or to share another's viewpoint. He lacks control because he cannot anticipate objections which others will make to his behavior.
Based on Gough's theory, one would not expect any need for social approval on the part of psychopaths; one would also expect psychopaths to score significantly lower on measures of socialization than normals or other psychiatric groups. These assumptions appear to be consistent with the so called "defense-against-attachment theory" of Redl and Wineman (1951) who suggested that aggression may be a defense against identification. This theory states that the psychopath is capable of generating guilt and other interpersonal feelings. However, because he finds close relationships intolerable and frightening, he defends against their formation. In other words, much of the psychopath's aggressive behavior may actually be an attempt to sabotage the production of close, interpersonal feelings, including feelings of guilt. Based on this behavior one would expect the denial of any need for social approval on the part of psychopaths.

In contrast to psychopaths, Hunt, Wittson, and Hunt (1952) found that neurotics tend to display less aggressive behavior, in the sense that they were much less apt to exhibit delinquent behavior than the psychopaths and even showed less delinquent behavior than a normal control group. On the basis of these findings one might expect a higher need for social approval on the part of neurotics.

Any attempt to investigate the above hypotheses, however, demands some convenient means for selecting groups of psychopaths.
and of neurotics. Fortunately, the Personal Opinion Study (POS) (Quay & Peterson, 1968) offers a means of differentiating a delinquent group in terms of psychopaths, neurotics, and subcultural delinquents.

Since our experimental population was drawn from the inmates of a military detention facility and shared the common characteristic of delinquency, use of the Personal Opinion Study offered us two psychiatric groups, psychopaths and neurotics, and a comparison group of non-psychiatric inmates who could be studied in terms of aggression, need for approval, and socialization.

The review of the literature (presented in the next chapter) suggests that no one has directly investigated differentially diagnosed groups in terms of both their aggressive needs and needs for social approval. However, the research of Fishman (1964, 1965) with college students is relevant in terms of the relationship between need for approval, as measured by the Marlowe-Crowne Social Desirability Scale, and aggression. Her 60 female subjects were selected from a group of 98 freshmen and sophomores at a small four-year teachers' college. In keeping with Pastore's (1953) findings concerning the generality of Dollard, Doob, Miller, Mowrer, and Sears (1939) frustration-aggression hypothesis, Fishman (1964) devised two types of frustration to elicit aggression, arbitrary and nonarbitrary. Subsequent to the frustration procedure, subjects had the
opportunity to aggress against the experimenter-frustrator, on an "evaluation questionnaire." As predicted, subjects with a high need for approval (high n Approval) expressed less aggression than those with a low need for approval (low n Approval).

The present study goes beyond Fishman's by investigating male delinquents as opposed to college women and by measuring socialization in addition to need for approval.
Chapter II

Review of the Literature and Hypotheses

The Concept of Psychopathy

The concept of psychopathy has had a long development in psychopathology. Medical historians generally agree that the clinical syndrome of psychopathic personality was first clearly elucidated and distinguished from other forms of mental dysfunction by Prichard (1835). Prichard classified psychiatric disorders into two broad groups, "moral insanity" and "intellectual insanity." He coined the phrase "moral insanity" to describe those individuals incapable of "conducting themselves with decency and propriety in the business of life (p. 11)" but not afflicted with any of the usual "intellectual insanities." Prichard's description of this disorder is remarkably similar to the modern clinical picture of psychopathy (Cleckley, 1950; McCord & McCord, 1964); he defined it as:

... a madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, moral dispositions and natural impulses, without any remarkable disorder or defect of the intellectual or knowing and reasoning faculties, and particularly without any insane illusion or hallucination. ... Persons labouring under this disorder are capable of reasoning or supporting an argument upon any subject within their sphere of knowledge that may be presented to them; and they often display great ingenuity in giving reasons for the eccentricities of their conduct and in accounting for and justifying the state of moral feeling under which they appear to exist (p. 11).
The dichotomy was vigorously disputed during the remainder of the nineteenth century. The term "psychopathic" was first suggested by Koch (1891). He attempted to eliminate the moral connotations attached to Prichard's concept by substituting the term "psychopathic inferiority." Koch went beyond Prichard, however, and subsumed all peculiar and eccentric forms of behavior as well as many neurotic behaviors under this rubric. It is interesting to note that he was the first to postulate a genetic or constitutional etiology to account for the disorder, an explanation which has maintained its viability to the present time.

In the years succeeding Koch, attempts were made to describe this condition more precisely. Meyer (1911) and Kraepelin (1915) respectively attempted to refine and delimit this order by excluding neurotic and psychotic behaviors from the category; all behavioral abnormalities which remained were grouped under the general designation of psychopathic disorder. Unfortunately, this led to a tendency to make the term less precise and more difficult to deal with as a substantive scientific issue. This state of affairs has prompted some authors to feel that the term is currently little more than a psychiatric wastebasket for a heterogeneous collection of illnesses with etiologies which are not known and with clinical pictures which differ in essential elements (Preu, 1944; White, 1956).
The exact etiology of psychopathy is not known at present. Until the 1920s the emphasis was primarily on constitutional and genetic factors. In the 1950s and 1960s there was a shift to a more dynamic interpretation, particularly as manifested in the psychoanalytic formulations. Despite this shift, there is still an influential body of opinion in psychiatry behind the genetic interpretation of psychopathy. Although the question of etiology is still a polemical one Gough (1948) believed there is fair agreement concerning symptomatology. Despite this agreement of symptomatology, the lack of definitive characteristics for this order has had ramifications for experimental research. For example, the results of experimental studies of psychopathy are difficult to evaluate and nearly impossible to compare across studies because the operational definition of psychopathy has varied from study to study. Thus, when evaluating studies, one is compelled to cite the definitional criteria of the psychopath utilized by the author.

In spite of this confusion, there do seem to be a few central characteristics which distinguish the psychopath from other individuals. Finn (1971) did an extensive review of studies involving different criteria in specifying psychopathic subjects (Table 1). In general, there have been four principle methods used in designating subjects as psychopathic; Pd scores of the MMPI, psychiatric diagnosis, Cleckley's criteria, and the questionnaire responses of Quay and Peterson (1968).
Table 1*

Delineation of Studies Involving Different Criteria in Specifying Psychopathic Subjects

I. Pd Scale of the MMPI

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<tr>
<th>Investigator</th>
<th>Criteria</th>
<th>Psychopathic Population</th>
<th>Control Population</th>
<th>Purpose of Research</th>
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<td>High &amp; Low Pd</td>
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II. Behavior Rating Checklists or Personality Questionnaires of Quay et al.

| Johns & Quay (1962) | Delinquency Scale | Prisoners at military stockade with high scores on psychopathy scale | Prisoners at military stockade with high scores on neuroticism scale | Effectiveness of social reinforcement on learning |

* Adopted from Finn, 1971.
<table>
<thead>
<tr>
<th>Investigator</th>
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<td>Quay &amp; Hunt (1965)</td>
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<td>Violent Tendencies</td>
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Pd Scores of the MMPI. Hathaway (1939) suggested the possibility that the personality inventory might be of considerable aid in the diagnosis of psychopathy. He advanced the hypothesis that individuals scoring high on the normal extreme of a neurotic inventory are prone to antisocial behavior because of their failure to experience the normal controls that result from emotional reactions present in the average person. He reported data from case studies supporting this hypothesis. Subsequent to this work, McKinley and Hathaway (1956) developed five trial scales for the identification of psychopathy. The final version of this work is now Scale 4 (Pd) of the Minnesota Multiphasic Personality Inventory.

The Pd score as explained by Hathaway and McKinley (1951) "measures the similarity of the subject to a group of persons whose main difficulty lies in the absence of deep emotional response, the inability to profit from experience and the disregard of social mores (p. 251)." They credit the scale with being able to identify half of the cases routinely characterized as psychopathic personality. The scale in its final form was labelled psychopathic deviate to indicate that it is not expected to differentiate all cases of psychopathic personalities.

From a review of the literature, one criticism which can be leveled at all studies which utilize this method of categorizing subjects in that the resulting group is too heterogeneous. For example, in giving the scale to college students, it has
been found that underachieving students, student political leaders (Williamson, 1952), and sociology and psychology majors (Norman, 1952) have elevated $P_d$ scores. From a behavioral point of view, all such students certainly do not exhibit the defiant and undisciplined behavior characteristic of the true psychopath.

Results such as those listed above cast doubt on studies which have utilized undergraduate students with high $P_d$ scores and labelled such students as psychopaths (Hare, 1965; Hetherington, & Klinger, 1964). Such an approach would have to assume that there is a hypothetical continuum of psychopathy with mild antisocial behavior comprising one segment. This has yet to be demonstrated.

Another criticism of selecting psychopaths on the basis of high $P_d$ scores is that the same score could mean different things. Comrey (1958) did a factor analysis of the $P_d$ scale. He found that the scale was not pure but contained several factors, only one of which conformed to the stereotyped notion of a psychopath. Depending, therefore, on the internal composition of the answers on the scale, identical scores on the $P_d$ could have quite different implications.

Still another criticism of this method of selection is that the $P_d$ scale was employed independent of the other scales. For example, a subject might be above 70 on the $P_d$ scale but he could also be above or below 70 on other scales. This again could have quite different implications. The evidence suggests
that high Pd scores will not necessarily segregate psychopaths from other groups; although psychopathic individuals would be expected to obtain scores above 70 on this scale. Thus, any group selected for psychopathy on the basis of a high Pd score is bound to contain false positives from other clinical groups.

Psychiatric Diagnosis. Meehl (1954) pointed out that one of the major methodological problems of clinical psychology concerns the relation between the "clinical" and "statistical" (or actuarial) methods of prediction. We do not have detailed knowledge of the exact processes which are involved in clinical judgments, but there is evidence to illustrate that observer bias in terms of context and anchoring effects, self-sets, and amount of information have an important influence on the judgment that is made (Hunt, & Jones, 1962). Hunt and Jones, while accepting the actuarial approach, stressed the continued need for relying on clinical judgment.

Goldberg (1968) referred to clinical judgment as:

An important human cognitive activity typically carried out by a professional person, aimed at the prediction of significant outcomes in the life of another individual. When the same type of prediction is made repeatedly by the same judge, using the same type of information as a basis for his judgments, then the process becomes amenable to scientific study. And not surprisingly over the past twenty years the clinical judgment process has begun to be studied intensively by investigators all over the world (p. 483).

Historically, the first research on the accuracy of such clinical judgments, centered on the diagnostic acumen of clinical
psychologists themselves. Over the past twenty years a myriad of such studies have appeared. Goldberg (1968) suggested that the most dramatic and influential ones were the studies reported by Kelly and Fiske (1951) and Holtzman and Sells (1954).

Wittson and Hunt (1951) offered evidence of the predictive value of the brief psychiatric interview. They reported 944 cases of naval personnel who were interviewed because of suspected neuropsychiatric symptomatology. On the basis of a brief psychiatric interview, these cases were separated into three classes--mild symptoms, treatment not indicated; moderate symptoms, shore duty indicated; and severe symptoms, hospitalization indicated. The subsequent naval careers of these 944 men were studied for one year. The neuropsychiatric discharge rates for the three groups during that year were in accord with the original prediction. The "mild" group lost 6.5 per cent for neuropsychiatric reasons, the "moderate" group 20.2 per cent, the "severe" group 89.7 per cent. Thus, these data demonstrated the validity of the brief interview as a classificatory procedure.

Other studies, however, have yielded some rather discouraging conclusions. For example, one surprising finding--that the amount of professional training and experience of the judge does not relate to his judgmental accuracy--has appeared in a number of studies (e.g., Goldberg, 1959; Hiler & Nesvig, 1965; Johnston & McNeal, 1967; Levy & Ulman, 1967; Luft, 1950; Oskamp,
In addition to this finding there is now a host of studies
demonstrating that the amount of information available to the
judge is not related to the accuracy of his resulting inferences
(e.g., Borke & Fiske, 1957; Giedt, 1955; Golden, 1964; Grant,
Ives & Ranzoni, 1952; Grigg, 1958; Hunt & Walker, 1966; Jones,
1959; Kostlan, 1954; Luft, 1951; Marks, 1961; Schwartz, 1967;

Such findings relative to the validity of clinical judg-
ments obviously raise question as to their reliability. The
vast majority of reliability studies have focused upon judg-
mental consensus. It has been established that classification
of diagnosis into major categories—organic, psychotic,
characterological, etc.—exhibits a high degree of reliability
among judges. However, when specific subtypes of the disorder
must be predicted, agreement between judges drops to below 50
per cent (Hunt, et al., 1953; Schmidt & Fonda, 1956). Moreover,
it has been repeatedly demonstrated that the most unsatisfactory
diagnosis from the point of view of reliability is the char-
acterological group (Ash, 1949; Mehlman, 1952; Schmidt & Fonda,
1956). Schmidt & Fonda found that "agreement with respect to
diagnosis of the specific subtype of a disorder occurred in only
about half of the cases and was almost absent in cases involving
personality pattern—and—trait disorders and psychoneuroses
(p. 216)."
These findings raise serious questions as to the studies which have used psychiatric diagnosis as the exclusive method of garnering psychopathic individuals. Individuals labelled psychopathic by one judge would have only a minimal chance of being so designated by another. Thus, clinical judgment does not seem to be a highly reliable method of determining subjects.

**Cleckley's Criteria.** Closely allied to clinical judgment is the use of Cleckley's description of the psychopath. This criterion selects only those men who fit specific specifications. Many of the same pitfalls are inherent in this method as in subjective judgment. With this criterion, however, all judgments are made on the same basis.

Cleckley (1950) describes the true psychopath as having:

1) superficial charm and "good intelligence"
2) absence of delusions and other signs of irrational thinking
3) absence of "nervousness" or psychoneurotic manifestations
4) unreliability
5) untruthfulness and insincerity
6) lack of remorse or shame
7) inadequately motivated antisocial behavior
8) poor judgment and failure to learn by experience
9) pathologic egocentricity and incapacity for love
10) general poverty in major affective reactions
11) specific loss of insight
12) unresponsiveness in general interpersonal relations
13) fantastic and uninviting behavior, with drink and sometimes without
14) suicide rarely carried out
15) sex life impersonal, trivial, and poorly integrated
16) failure to follow any life plan (p. 362).

Questionnaire Responses of Quay and Peterson. An extensive program of empirical research into the dimensions of deviant behavior in youthful offenders has been accomplished by Peterson, Quay, and Cameron, 1959; Peterson, Quay, and Tiffany, 1961; Quay, Peterson, and Consalvi, 1960; Quay and Peterson, 1964. One of the results of this program has been the development of a personality questionnaire. This questionnaire, known as the Personal Opinion Study, and hereafter referred to as POS, was developed out of a series of factor analytic studies of the responses of both delinquents and normals to a large pool of items related to attitudes, beliefs, feelings, and behavior.

Originally Quay and Peterson (1958) developed a short, objective scale for juvenile delinquency among males. The 40 item, true-false scale was standardized and cross-validated on a total of 781 cases with a correct classification of 67 percent of the cases. Reliability ranged from .53 to .82. Positive correlations were found with the Gough-Peterson Scale. Peterson, Quay, and Cameron (1959) did a factor analysis of items of the Gough-Peterson and the Quay-Peterson Scales. Three personality dimensions emerged. The first was characterized by a number of psychopathic qualities and was named accordingly. In the second factor, impulsive antisocial behavior covaried with expressions of regretful depression and other negative affect. It was interpreted as a neurotic dimension. The third personality
factor implied a general sense of incompetence and was regarded as an expression of inadequacy. The three personality factors were tentatively labelled "Psychopathic Delinquency" (PD), "Neurotic Delinquency" (ND), and "Inadequate Delinquency" (ID).

Quay, Peterson, and Consalvi (1960) sought further classification of the meaning and validity of these three personality factors by investigating their relationship to other variables. They interpreted the results as providing empirical support for the applicability of the factor labels originally arrived at through analysis of item content.

Peterson, Quay, and Tiffany (1961) then studied a variety of questionnaire measures known to discriminate between delinquents and nondelinquents. Factor analyses of these measures were based on samples composed of both institutionalized delinquents and public school students. The results of this study, like those of the earlier study (Peterson, Quay, & Cameron, 1959), indicated that the majority of the variance of all the questionnaires could be accounted for by three orthogonal factors. These factors were labelled psychopathic delinquency, neurotic delinquency, and delinquent background or subcultural delinquency. Psychopathic delinquency was interpreted as reflecting tough, amoral, rebellious qualities, coupled with impulsivity, a conspicuous distrust of authority, and a relative freedom from family and other interpersonal ties. The neurotic delinquency factor also reflected impulsivity but it was
accompanied by tension, guilt, remorse, depression, and discouragement. The subcultural delinquency factor appeared to mirror attitudes, values, and behaviors commonly thought to occur among members of culturally and economically disadvantaged delinquent gangs in whom personality maladjustment per se is not clearly evident.

Quay and Peterson (1968) refined their pool of test items utilizing 531 delinquent boys and 639 nondelinquent high school boys. Again, three factors emerged: for the psychopathic delinquency score, the average loading on the factor matrix was .45; for the neurotic delinquency score .39; and for the subcultural delinquency scale .39.

The POS has been used in a variety of research studies both with delinquents and other groups. Orris (1969) compared groups of psychopathic, neurotic and subcultural delinquents on a task requiring continuous attention. As was predicted, the psychopathic group performed consistently poorer than the other two groups.

In two studies utilizing the sentence-building verbal conditioning task Johns and Quay (1962) and Quay and Hunt (1965) using verbal reinforcement found psychopathic offenders less conditionable than neurotic offenders.

Megargee and Golden (1971) assessed the attitudes toward mothers and fathers of psychopathic and subcultural delinquents and a group of nondelinquents. As predicted the psychopathic
delinquent group was more negative than the nondelinquent group in their attitude toward both parents. Although the subculturals' attitudes toward their mothers did not differ from those of non-delinquents it was found that their attitudes toward their fathers were as negative as those of the psychopathic group. Hetherington (1971) has reported extensive differences in the family backgrounds of neurotic, psychopathic, and subcultural delinquent girls as identified by means of the POS.

Aggression

While aggression has been a much studied topic in psychology, there is still much controversy over its precise definition and the proper means to measure it. The control of aggressive impulses is a primary part of the socialization process that the developing child undergoes. Any failure in this process could result in a potentially destructive force in relations between individuals. Concerning aggression, Freud (1962) wrote:

The fateful question for the human species seems to me to be whether and to what extent their cultural development will succeed in mastering the disturbance of their communal life by the human instinct of aggression and self-destruction (p. 92).

Defining aggression has been a difficult problem for many investigators. Several criteria are commonly accepted as descriptive of aggression. First, aggression has painful or destructive consequences to some person, animal, or inanimate
object. Second, aggression is motivated or purposeful. While there are many theories as to the causes of aggression, perhaps the one that has been investigated most extensively is the frustration-aggression theme of Dollard, Doob, Miller, Mowrer, and Sears (1939) who stated that the instigation to aggression varies directly with (a) the strength of the frustrated goal-response, (b) the degree of interference, and (c) the residuals of previous or simultaneous other frustrations. Whether aggressive behavior actually occurs depends upon the anticipation of punishment. They conducted a number of experiments that showed how common it is for aggressive behavior to be the consequence of frustration.

Pastore (1952) introduced the concept of arbitrariness into the frustration-aggression theme. Based on his experimental work, he concluded that the arbitrary aspect of a frustrating situation should be part of a theory that attempts to explain the relationship between frustration and aggression. The dimension of arbitrariness was explored further by Cohen (1955). Subjects in this experiment indicated less aggression in non-arbitrary situations than in arbitrary situations, thus emphasizing the importance of the perception of justifiability of frustration.

Rothaus and Worchel (1960) suggested that this decrease with nonarbitrary frustration may not be due to lowered instigation but rather to an increase in the inhibitory responses
aroused by the social nature of the situations used in the questionnaires. In order to test the hypothesis that the low frequency of aggressive responses to a nonarbitrary frustration is due to the arousal of inhibitions, Rothaus and Worchel (1960) employed questionnaires containing arbitrary (A), nonarbitrary (NA), projective arbitrary (PA), and projective nonarbitrary (PNA) sets of frustration to test for the presence of inhibitory mechanisms. On the basis of their results, they concluded that under a nonarbitrary or "reasonable" set of frustrations, instigation to aggression was still present, but inhibited owing to the nature of the situation.

In contrast to the questionnaire method, Kregarman and Worchel (1961) investigated the "arbitrary" factor in an actual, experimentally manipulated classroom situation. They employed a 2 x 2 factorial design (expectancy x reasonableness). Of two possible hypotheses, reduced level of drive vs. response inhibition in the reduction of aggression under nonarbitrary frustrations, they found the latter more tenable. Kregarman and Worchel further hypothesized that in the nonarbitrary conditions, the self might be the target for aggressive feelings. Thus, they included in their postfrustration questionnaire items to measure self-aggression; and, in fact, they found that subjects in the nonarbitrary conditions did express more self-aggression than subjects in the arbitrary conditions.

Fishman (1965) investigated the arbitrariness of frustration
in arousing aggression. In addition, she added a measure of the relationship between aggression and the need for approval, as measured by the Marlowe-Crowne Social Desirability Scale. Two types of frustrations were devised to elicit aggression, arbitrary and nonarbitrary. In the arbitrary frustration condition, the subjects were promised a $2 bonus if they succeeded on a routinely assigned task. Then, after completing it successfully, they were informed that the bonus was being withheld, for a rather flimsy reason ("Remember, I said it was important that you do your best, and I don't think you did."). In the nonarbitrary-frustration condition the same bonus was promised to an equivalent group and then withheld on the grounds that the subjects had not accomplished the task in the time limit. A control group was given the same task, but no frustration was introduced; there simply was no mention of a bonus nor of failure on the task. Subsequent to the frustration procedures, subjects had the opportunity to express aggressive feelings against the examiner-frustrator on an "evaluation questionnaire." Subjects were informed via written instructions to be frank and that the questionnaire was an indispensable aid in rating and grading the examiner.

The results of this study supported the hypothesis that following an experimentally induced frustration, subjects high in n Approval (high scores on the Social Desirability measure) expressed less aggression against the experimenter-frustrater
than low approval subjects. One limitation of Fishman's work is reflected in her choice of subjects. The subjects were female freshman and sophomores at a small 4-year teachers' college for women. It is highly probable that the subjects were from similar socio-economic backgrounds and subjected to the same cultural influences. Therefore, it is difficult to generalize her findings on need for approval and aggression to a more heterogenous group, especially a psychiatrically diagnosed one.

In line with Kregarman and Worcel (1961), Fishman also measured self-aggression and hypothesized that nonarbitrary frustration would elicit more aggression against the self than arbitrary frustration. The results confirmed her hypothesis.

The preceding review of theory and research relevant to aggression and self-aggression suggests that presumably normal subjects: (1) expressed less aggression following nonarbitrary frustration than following arbitrary frustration, (2) expressed more self-aggression following nonarbitrary frustration, and (3) subjects high in need for approval expressed less aggression than those who were low.

Since none of these studies used samples of persons with psychiatric diagnoses, the extent to which the above findings would apply to the psychopaths, neurotics, and subcultural delinquents used in the present study is open to question.

Based on Cleckley's (1950) description of the psychopath
which specifies "a lack of remorse or shame" one would expect that psychopaths would be less self-aggressive than other clinical groups under both conditions.

With a group of hyperaggressive subjects (i.e., delinquents), it might be anticipated that the subjects would disregard the difference in social appropriateness of aggressive behavior in the two frustration situations. In other words, it might be expected that delinquents being hyperaggressive would be equally aggressive under the nonarbitrary condition as under the arbitrary condition.

The Need for Approval

In general, there have been two psychometric models used to measure social desirability. One model is based on a statistical-deviance approach (Edwards, 1957). By social desirability Edwards primarily means the "scale value for any personality statement such that the scale value indicates the position of the statement on the social desirability continuum... (p. 3)." Thus, for Edwards, social desirability refers to a characteristic of test items, i.e., their scale position on a social desirability scale. Edwards drew items from various MMPI Scales ((F, L, K, and the Manifest Anxiety Scale (Taylor, 1953)). With items drawn from the MMPI, it is apparent that in addition to their scalability for social desirability the items may also be characterized by their content which in a general sense has pathological implications. This makes it difficult to
discriminate between the effects of item content and the needs of subjects to present themselves in a socially desirable (or undesirable) light. For example, when subjects given the Edwards Social Desirability Scale (SDS) deny that their sleep is fitful and disturbed (Item 6) or that they worry quite a bit over possible misfortunes (Item 35), it cannot be determined whether these responses are attributable to their social desirability or to a genuine absence in the individual of such symptoms. Crowne and Marlowe (1960) pointed out certain ambiguities in Edwards' approach.

In order to avoid some of the ambiguities of the statistical deviance approach, an alternative model to Edwards' conception of social desirability was proposed by Crowne and Marlowe (1960). In their opinion social desirability was defined more broadly to refer to the need of the subject to obtain approval by responding in a culturally appropriate and acceptable manner. Research on the Marlowe-Crowne Social Desirability (MC-SD) scale indicates that the social desirability response set reflects a general disposition to behave in a socially desirable manner in order to gain approval, and the MC-SD may therefore be considered an indirect measure of a general need for approval (Crowne & Marlowe, 1960).

In a subsequent study Marlowe and Crowne (1961) investigated the hypothesis that individuals with a strong need for social approval would express significantly more favorable
attitudes toward the experiment than individuals with a relatively weak need for social approval. Subjects performed a boring task for 25 minutes, and then rated their attitudes toward the experiment. The significant findings reported confirmed Marlowe and Crowne.

Strickland and Crowne (1962) investigated conformity in an Asch-type situation. They hypothesized that individuals with a high need for social approval will distort their judgments of objectively determinable stimuli in response to perceived group pressure more frequently than persons less concerned with social approval. The Marlowe-Crowne Social Desirability Scale was used as an index of the need for social approval. Results indicated that subjects with a high need for social approval conform significantly more often than those subjects with a weaker approval need.

Crowne and Strickland (1961) compared the changes in response rate of subjects differing in the strength of need for social approval on a verbal conditioning task. The hypotheses were that subjects with a high need for social approval, in contrast to subjects with a weaker approval need, tend to show an increase in the proportion of plural nouns under positive reinforcement and a decrease under negative reinforcement. Results supported the hypothesis. The authors interpreted the findings as "providing support for the inference of need for social approval from a personality inventory measuring the degree
of personal endorsement of socially approved characteristics (p. 328)."

Marlowe (1962) tested the hypothesis that the conditionability of positive self-references in an interview setting is related to individual differences in the strength of the need for social approval. The results indicated that subjects with a strong need for social approval produce significantly more positive self-references under positive reinforcement than a comparable group of low need for approval subjects.

Crowne and Marlowe (1964) found that high scorers on the MC-SD were significantly higher than low scorers on "fear of rejection" imagery on the TAT. Strickland and Crowne (1963) found that high and low need for approval patients differ strikingly in the length of time they remain in psychotherapy. The high need for approval group terminated significantly (p < .005) earlier. This supported their hypothesis that approval-dependent individuals tend prematurely to terminate psychotherapy. From an examination of the experimental evidence, the conclusion that the MC-SD is a valid indirect measure of the need for approval appears justified.

Socialization

As was pointed out earlier in this paper, Gough (1948) suggested a sociological theory of role-playing to account for the development of a psychopathic personality. Gough (1948)
Saying that the psychopathic personality is pathologically deficient in role-playing abilities permits the accommodation of the already known facts about predictions in areas where present knowledge is scant (p. 363).

As an application of this theory, Gough and Peterson (1952) constructed an assessment instrument capable of differentiating significantly between delinquents and controls in both their original and cross-validational samples. This instrument less 10 items became the socialization (So) scale of the California Psychological Inventory (Gough, 1957). In later work on socialization, Gough (1960) pointed out that "a scale of measurement for 'socialization' should position individuals in the 'asocial' normal and supernormal zones of the continuum in general accordance with the verdict which the sociocultural environment has handed down concerning them (p. 22)." Thus, socialization is viewed as a continuum which, in Goughian prose runs:

... from persons of exemplary probity and rectitude at one end, through persons of more typical and less beneficient coadunations of positive and negative propensities, to persons of frankly errant and wayward impulse... (p. 23).

Based on this, one would expect significant differences between psychopathic, neurotic, and subcultural delinquents as defined by Quay and Peterson (1968) on their measure of social approval and socialization.

According to Wiggins (1968), it is doubtful that any other
single scale has enjoyed the extensiveness of empirical validation to which Gough's So Scale has been subjected. A recent survey of international research activity on this scale reported the administration of the So Scale in eight languages in 10 widely-spaced countries to totals of 21,772 nondelinquent and 5,052 delinquent males and females (Gough, 1965). Significant (p < .001) discriminations between delinquents and nondelinquents were achieved in all of the 18 independent comparisons. The worldwide hit rate of So Scale appears to be about 78 per cent for males and 85 per cent for females. In the United States, the So Scale did somewhat better in samples of 18,777 nondelinquent and 3,742 delinquent male and female Americans (Gough, 1965). Using optimum cutting points, 87 per cent of males and 85 per cent of females were correctly identified.

Gough (1960) also claimed that discrimination along the continuum of delinquency can be made using his Socialization (So) Scale. Investigators have variously supported and rejected this view.

Knapp (1963) did a study to determine whether the So Scale was related to delinquency rate in a group of 92 Navy brig confinees. The So Scale correlated significantly with the number of offenses committed, partialling out length of service. However, the correlation was only -.28 between So scores and delinquency rate, a statistically significant but rather low validity. Differences in mean scores between his delinquent
sample and those presented for a high school sample were in the expected direction for the Socialization Scale.

Thorne (1963) found no difference in So scores between recidivists and nonrecidivists and no difference between those boys requiring a closely supervised setting versus those placed in an open setting. There was a complete absence of relationship \( r = .001 \) between So scores and a scale measuring severity of delinquent acts. Those receiving high So scores were as likely to commit such offenses as assault, fire setting, and rape as those with low scores. Thorne concluded:

The present findings would not support claims that the So Scale can discriminate between institutionalized delinquents. It appears that the clinician working in a delinquency institution might find it difficult to use the So scores even for screening purposes (p. 183).

Thus, the question of whether the So Scale can discriminate degree of delinquency appears to be an open one.

**Hypotheses**

Specifically, the present study compared the amount of aggression expressed by three groups (psychopaths, neurotics and subcultural delinquents) subjected to frustration in an experimental situation. Measures of each subject's need for approval, socialization, and aggression toward self and the experimenter under both arbitrary and nonarbitrary conditions were obtained. The following hypotheses were tested:

1. There is a significant difference in the amount of aggression
expressed by the three clinical groups; the magnitude of aggression ranging from most to least for the psychopaths, the subcultural delinquents, and the neurotics in that order.

2. There is a significant difference in the need for approval in the three clinical groups. The order for amount of need for approval is the inverse of hypothesis 1, namely, neurotics, subcultural delinquents and psychopaths.

3. There is a significant difference in socialization between the three clinical groups with psychopaths scoring lowest on the measure of socialization.

4. Psychopaths score significantly lower than neurotics and subcultural delinquents, on a measure of self-aggression under both the arbitrary and nonarbitrary conditions.

5. Delinquents as possibly hyperaggressive subjects will be equally aggressive under the nonarbitrary condition as under the arbitrary condition.

In addition to testing the above hypothesis, correlations will be computed between the various instruments used and other available information on subjects, such as age, time in prison, etc.
Chapter III
Method

Subjects

The subjects were inmates of a military prison. They were selected on a random basis utilizing the computer at the data processing center of the prison. Utilization of subjects from a military prison appeared ideal to the design of this research. Extensive data were available in each inmate's records including an extensive social history; a detailed history of the individual's functioning in the military service, and the complete transcript of the court-martial that resulted in his being sentenced. The records also include recommendations to and actions taken by classification boards on subject matters as custody classifications, work assignments, clemency, probation, restoration to duty, etc. Ninety-five per cent of the prisoners are Army personnel while the remaining five per cent are Air Force. The diversified population of this institution includes men who have committed only military infractions for which there would have been no civilian legal repercussions; men who have committed legal crimes and whose military status precluded civil procedures and sentencing (for example, a soldier who rapes or murders a military dependent on a federal reservation); conscientious objectors; and extremely immature individuals who were unable to tolerate Army life. Inherent in
such a heterogenous population should be a number of psychopaths whose intolerance for rules and/or boredom with Army life would have catalyzed offenses against military or civil codes; and a number of essentially normal men many of whom appear to mirror attitudes, values and behavior commonly thought to occur among members of culturally and economically disadvantaged groups.

The population, albeit somewhat older, is similar to ones studied by Quay and Peterson (1968) to develop the three scales of the Personal Opinion Study.

Table 2 contains information on the subject’s age, race, etc. The criminal assessment of the population at the time the data was collected is contained in Appendix A.

Measures

Measure of psychopathy, neuroticism and subcultural delinquency is a 100-item true-false questionnaire- The Personal Opinion Study (Quay & Peterson, 1968) used to select the three categories—psychopaths, neurotic and subcultural delinquent. This instrument yields three factors scales—Factor I: psychopathic delinquency—45 items; Factor II: neurotic delinquency—30 items; Factor III: subcultural delinquency—25 items. The questionnaire is reproduced in Appendix B. Factor scales with item factor loading and scoring direction are reproduced in Appendix C. Thus, each subject received three scores on the questionnaire with the score for each scale being the sum of the items answered in the indicated direction. Although Quay
Table 2
Profile Data of Subjects
N = 205

Race

<table>
<thead>
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<tr>
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<tr>
<td>Negro</td>
<td>99</td>
</tr>
<tr>
<td>Oriental</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>

Mean Age = 22.8
Mean Age at Entry into Service = 19.2
Mean length of Sentence in years = 2.64
Mean length of creditable service in months = 23.8
Number of inmates never arrested by civilian authorities = 96
Number of inmates who never served confinement previous to military service = 132
Mean Army General Technical Score = 97.7 (Estimate of intelligence)

Present Marital Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Married</td>
<td>61</td>
</tr>
<tr>
<td>Legally Separated</td>
<td>2</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
</tr>
</tbody>
</table>
and Parsons (1971) established norms on the questionnaire and two other instruments (The Behavior Problem Checklist and the Checklist for the Analysis of Life History Data) with a group of 1075 inmates at Federal Youth Correctional Institutions, they were interested in classification by a combination of the three instruments. The present study employed a procedure similar to one used by Hunt, Quay and Walker (1966) in a study on clinical judgment. They used only the psychopathic and neurotic scales. They employed the criteria of scores above the mean on one factor and below the mean on the other factor to select subjects. Lenz (1972) used the criteria of above the mean on one factor and below the mean on the other two factors to establish groups of psychopaths, neurotics and sub-cultural delinquents. This last procedure is the one used in the present study.

Measure of n Approval. The instrument used to measure the need for approval was the Marlowe-Crowne Social Desirability Scale (see Appendix D). This is a 33-item scale, which the subject answers either true or false as it generally applies to himself.

The rationale for use of the Marlowe-Crowne Social Desirability Scale as a measure of n Approval was discussed in the review of the literature.

Measure of Socialization. The instrument used to measure
socialization was the So Scale of the California Psychological Inventory. This instrument is reproduced in Appendix D.

Measure of Aggression. The instrument used to measure aggression was the Research Evaluation Questionnaire (REQ) (Fishman, 1964). The REQ consists of 18 items (see Appendix E). Seven items refer specifically to an evaluation of the experimenter (REQ-E Subscale). A sample item is: "In your opinion, how competent was the student who conducted the experiment in which you participated?" An additional four items refer to an evaluation of the research itself (REQ-R Subscale). A sample item is: "In your opinion, how much of a contribution will this study make to the field of psychology?" Two items refer to an evaluation of the subject's own performance (REQ-S Subscale). A sample item is: "How satisfied do you feel about your own performance as a subject?" Another five items were varied in content and served generally as filler items. Below each item was a 10-point rating scale -5 to +5, with zero omitted. The zero point was omitted to present subjects avoiding a decision between a positive and negative rating. Subjects were asked to circle the number on the scale most appropriate to their feelings. The expression of aggression was operationally defined as the ratings given by subjects on the REQ-E Subscale.

Ratings on the REQ-E are scored from 1-10, with a -5 rating given a score of 10, a -4 rating given a score of 9, and so on down to +5 which is given a score of 1. Thus, a high score
indicates that a subject is high on aggression against the experimenter, while a low score indicates that a subject is low on aggression (i.e., is positive) toward the experimenter.

An experimental procedure was employed to make the REQ-E a measure of direct aggression by the subject against the experimenter; i.e., the subject was led to believe he could "hurt" the experimenter by giving him a poor rating. The experimenter told all Ss he was conducting the research as part of a research requirement necessary for graduation. A letter accompanying the REQ informed subjects that their evaluation on the questionnaire was to be used by the research director as an indispensable aid in rating and grading the research carried out by a particular student (see letter accompanying REQ in Appendix E). The REQ, the letter, and an envelope addressed to the "research director, Loyola University" were presented to the subject in a sealed envelope. The experimenter claimed ignorance of the contents of that sealed envelope. (Further details of the procedure regarding the REQ will be presented below in the "Procedure" section.

Procedure

Selection of psychopathic, neurotic and subcultural delinquents. Two hundred and fifty Ss were randomly selected from the prison population by means of a computer. Of these, 205 were administered the Personal Opinion Study and the Personal Reaction Inventory (the "cover name" for the Marlowe-Crowne Social Desirability Scale). Of the 45 who were not tested, 17
refused to participate in any type of psychological testing. Of the remaining 28, some were on home leave, 2 were in the hospital, and others were on work details.

The subjects were tested in groups of approximately 25 each over a period of six working days. Each group was given the same introduction:

Good morning (or afternoon), my name is Ernest Lenz and I am a graduate student studying psychology at Loyola University in Chicago. As part of my graduate program I have to conduct some research projects for my research director. What we are interested in at the present time is the opinions of people in various walks of life. Part of my research is to obtain the opinions of a sample of the personnel of the U.S. Disciplinary Barracks. Your name was selected by the DB's computer on a random, that is, chance basis. There are three different surveys we would like you to fill out: the Personal Opinion Study, the Personal Reaction Inventory and the Social Opinion Scale. There is a copy of each scale on your desk. Each scale has its own answer sheet. Please be sure to use the correct answer sheet with the correct scale. For example, the Personal Opinion Study contains 100 items so mark your opinion on the Personal Opinion Answer Sheet that has 100 true-false spaces on it and is labeled Personal Opinion Answer Sheet.

As I have said this is an opinion survey, it is not a test in that there are no right or wrong answers. Different people have different opinions and what we are interested in is your opinions. When the results of the survey are compiled no individual person will be identified. This being a research project, no staff member of the U.S. Disciplinary Barracks will be permitted to see your answer sheets nor will any opinions expressed by you have any bearing on the course of your stay here.

This survey is entirely on a voluntary basis and you need not participate if you so choose. However, I would greatly appreciate it if you did. The results may contribute to our knowledge of human behavior.
This is one of several research projects I have to do here at the U.S.D.B. Since your names were selected on a random basis, some of you may be asked to participate in other research projects, your cooperation is greatly appreciated.

At this time let's read the instructions on the various sheets together. Let's start with the Personal Opinion Study.

Scores were obtained from the 205 subjects on each of three scales of the Personal Opinion Scale (Quay & Peterson, 1968) and the Marlowe-Crowne Social Desirability Scale. The present study identified 62 subjects who met the following criteria: 18 with scores above the mean on psychopathy but below the mean on neuroticism and subcultural delinquency; 16 with scores above the mean on neuroticism but below the mean on psychopathy and subcultural delinquency and 28 with scores above the mean on subcultural delinquency but below the mean on neuroticism and psychopathy. In order to have nearly equal cells for analysis 16 of the 28 cultural delinquents were randomly selected for the experimental treatment. One psychopathic and two neurotic delinquents were eliminated because they suspected the real nature of the experiment. This established three groups--15 presumed psychopaths, 14 presumed neurotics and 16 presumed subcultural delinquents.

As indicated above, subjects were assigned to one of two conditions on the basis of their classification. Subjects in the "arbitrary" frustration condition (Arb) were promised a $2 bonus credited to the personal deposit fund and a letter of
appreciation for their treatment file if they succeeded on a task, and then were unjustly criticized and denied both the money and the letter despite their success at the task. Subjects in the "nonarbitrary" frustration condition (Nonarb) were also promised the same bonus as the Arb subjects. They, however, were told that they had failed on the task. They were thus denied the bonus and criticized for their poor performance.

In denying the experimental subjects the bonus and criticizing them, the experimenter strictly followed a prepared script. The scripts chosen were similar to those used by Fishman (1964). They were reviewed by a correctional psychologists, and two psychiatrists with experience in a correctional setting. Parts of scripts were changed to fit a male correctional setting. The scripts for Arb and Nonarb conditions were developed so as to differ as little as possible from each other on the amount of frustration they would produce and on the amount of insult and criticism expressed by the experimenter to the subject. They thus, differed principally on the dimension of arbitrariness (see Appendix E for the scripts).

The use of insult in addition to a specified goal block (denial of the bonus) is consistent with the procedures employed by recent investigators of the frustration-aggression hypothesis, (e.g., Berkowitz and other cited in his 1962 book).

Each subject was seen individually by the experimenter. In order to avoid experimenter bias, the experimenter did not
know the classification of the subject. Subjects were identified and assigned to a treatment condition on a random basis by an assistant. Also the experimenter did not read the files of the subjects until after they had been tested.

All subjects were given the same introduction:

Please sit down. Remember, when you filled out the opinion surveys I told you that since your name was selected on a random or chance basis by the computer, there were other experiments I might ask you to participate in? Well, this is one of them. Also, when we are finished there is a questionnaire of some sort that Dr. Hunt, my research supervisor, wants you to fill out. I'll give that to you to fill out right after my own study is over.

My study is concerned with flexibility, one important aspect of intelligence. Ninety-five percent of high school students studied on this task have been able to accomplish it, so we know that most people can do it, if they try.

Because it is so important to me and to the whole experiment that you try hard and succeed, I will give you $2 and a letter of appreciation for your treatment file if you succeed. The $2 will be accredited to your Personal Deposit Fund here at the DB.

The subjects were then handed written introductions describing the task to be performed.

The task you are about to perform consists of counting backwards from 50 to 0 by 2s as quickly as possible. There is a time limit based on the average performance of high school students. Remember, most subjects like yourself do succeed and, if you succeed in counting backwards from 50 to 1 by 2s in the time allowed, you get $2 accredited to your Personal Deposit Fund and a letter of appreciation for your DB file.
When I say "Begin," begin counting. You will have 3 trials in all.

All experimental subjects were given the three trials. A few subjects had difficulty with the task but all completed at least one trial. After the third trial the experimenter told the subjects in the Arbitrary condition that they had succeeded but that "they just didn't deserve the $2 and the letter of appreciation." The experimenter told subjects in the Nonarbitrary condition that they had failed, despite the fact that 95% of high school students studied had succeeded. They did not get the bonus $2 and the letter (see Appendix E for the Arbitrary and Nonarbitrary scripts). Thus, all experimental subjects were frustrated; all were deprived of a bonus, and all were insulted and criticized by the experimenter.

The experimenter then explained that his study was over. He handed the subject a sealed envelope containing the questionnaire and an envelope stamped "Research Director Loyola University." The envelope also contained the letter of instructions informing the subject of the importance of his evaluation of the experimenter (see Appendix E for the letter). The experimenter then used the excuse "I am going for coffee and will be right back" to leave the subject alone in the room. After approximately 5 to 10 minutes of waiting outside the door, the experimenter entered the room.

With the experiment over, subjects were asked to remain
for a short while for a post-experimental interview. These lasted at least a half hour, and sometimes up to an hour. This interview served several purposes. The most important purpose was to debrief the subject on the real intent of the experiment. This was especially important because had the subject departed in an aggressive mood, he might have transgressed against institution rules and gotten in trouble. Therefore, it was ethically imperative that the subject understand what had taken place. To positively reinforce the subjects, all subjects were told in the interview that they did get the $2.00 credited to the Personal Deposit Fund and all of them did get a letter of appreciation for their treatment file indicating their cooperation, etc. Another purpose of the interview was to determine the subject's impression about the real purpose of the experiment. In three cases, subjects suspected the real purpose of the study. Their questionnaires were eliminated. Where possible additional subjects were taken as replacements from the subject pool.
Chapter IV

Results

One major concern of the present study was to determine whether there was a significant difference in the amount of aggression expressed by psychopaths, neurotics, and subcultural delinquents under conditions of arbitrary and nonarbitrary frustration. A second major concern was to determine whether there was a significant difference in the need for approval and socialization among psychopaths, neurotics, and subcultural delinquents. Of secondary interest was the ordering of the amount of aggression among the clinical groups and also of secondary interest was the ordering of the need for approval. The intercorrelations among the various instruments used to select subjects and between subject variables such as age, time in prison, etc. were also determined in order to investigate any meaningful relationship. Finally, the amount of self-aggression manifested under the two conditions of frustration was investigated.

Aggression

The means and standard deviations for the aggression scores for the three clinical groups under the two frustration conditions are shown in Table 3.
Table 3
Means and Standard Deviations of the Three Clinical Groups on Aggression

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychopaths</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>9</td>
<td>28.11</td>
<td>9.49</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>8</td>
<td>15.88</td>
<td>5.33</td>
</tr>
<tr>
<td><strong>Subcultural Delinquents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>10</td>
<td>19.30</td>
<td>7.33</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>8</td>
<td>14.75</td>
<td>5.20</td>
</tr>
<tr>
<td><strong>Neurotics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>7</td>
<td>17.57</td>
<td>10.16</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>7</td>
<td>13.71</td>
<td>8.22</td>
</tr>
</tbody>
</table>
The hypothesis that psychopaths aggress significantly more than neurotic and subcultural delinquents was tested by means of a 2 x 3 analysis of variance involving two levels of experimental frustration and the three clinical groups. The summary of this analysis (Table 4) indicates that the main effects for groups and conditions were significant. Examination of the mean aggression scores for the three groups through a series of t-tests indicated that the psychopaths expressed significantly more aggression than the other two groups in the arbitrary frustration condition ($t = 2.11 \ p < .05$) but not in the nonarbitrary condition. As suggested by the similarity between the means of the neurotics and subcultural delinquents, the difference between the means was not significant but in the predicted order.

The condition effect was highly significant ($F = 9.37, \ p < .001$) and reflected the fact that all groups scored higher in aggression under the arbitrary frustration condition. This is opposite of the prediction that delinquents as possibly hyperaggressive subjects will be equally aggressive under the nonarbitrary condition as under the arbitrary condition.

**Need for Approval and Socialization**

Table 5 presents the means and standard deviations for the need for approval (Marlowe-Crowne Social Desirability Scale) scores for the three clinical groups.

The prediction that there is a significant difference in
Table 4
Aggression Against the Experimenter--Arbitrariness of Frustration by Clinical Groups

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frustration Condition (A)</td>
<td>1</td>
<td>570.53</td>
<td>9.37</td>
<td>.001</td>
</tr>
<tr>
<td>Clinical Groups (B)</td>
<td>2</td>
<td>193.16</td>
<td>3.24</td>
<td>.05</td>
</tr>
<tr>
<td>A x B Interaction</td>
<td>2</td>
<td>87.94</td>
<td>1.44</td>
<td>NS</td>
</tr>
<tr>
<td>Within Cells</td>
<td>43</td>
<td>60.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5

Mean and Standard Deviation of Need for Approval for the Clinical Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychopath</td>
<td>18</td>
<td>19.72</td>
<td>5.64</td>
</tr>
<tr>
<td>Subcultural Delinquent</td>
<td>20</td>
<td>19.65</td>
<td>5.05</td>
</tr>
<tr>
<td>Neurotic</td>
<td>15</td>
<td>19.06</td>
<td>7.04</td>
</tr>
</tbody>
</table>
the need for approval in the three clinical groups with the scores of this measure varying from high to low for neurotics, subcultural delinquents, and psychopaths was tested. The one-way analysis of variance (Table 6) indicated that the three groups did not differ in need for approval. Although the differences between the means were minimal, the order was the inverse of that predicted.

The Pearson Product-Moment correlation (r) between the Marlowe-Crowne Social Desirability Scale and the So (Socialization) scale of the California Psychological Inventory in this study was .50 (p < .001). To investigate this relationship further a classical factor analysis (principle component factoring with reiteration) was performed and the variables rotated along the varimax plane. Factor score coefficients obtained from the social desirability and socialization indices substantiated the hypothesis that both variables were measuring the same dimension to a high degree. High loading on two of the four factors requested of the analysis supported a strong relationship between the two scales.

Table 7 presents the means and standard deviations for the socialization score for the three clinical groups. It was predicted that there would be a significant difference in the socialization scores of the three clinical groups with psychopaths scoring the lowest on this measure. Table 8 presents the summary of the analysis of variance. As in the case of the
Table 6

Analysis of Variance for Need for Approval by Clinical Groups

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>2.08</td>
<td>.12</td>
<td>NS</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50</td>
<td>34.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Standard Deviation</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----</td>
<td>------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Psychopath</td>
<td>18</td>
<td>29.16</td>
<td>5.24</td>
<td></td>
</tr>
<tr>
<td>Subcultural Delinquent</td>
<td>20</td>
<td>29.75</td>
<td>4.98</td>
<td></td>
</tr>
<tr>
<td>Neurotic</td>
<td>15</td>
<td>28.93</td>
<td>7.20</td>
<td></td>
</tr>
</tbody>
</table>
Table 8

Analysis of Variance--Socialization Scale (CPI) by Clinical Groups

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>3.21</td>
<td>.10</td>
<td>NS</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50</td>
<td>33.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
social desirability scores, the analysis indicated that the three groups did not differ significantly. Therefore, the prediction that psychopaths, neurotics, and subcultural delinquents differ significantly in socialization was not supported nor was the order predicted obtained.

**Self-Aggression**

Table 9 presents the means and standard deviations for the self-aggression of the three groups in the two frustration conditions. The summary of the $2 \times 3$ analysis of variance (arbitrary vs. nonarbitrary frustration; three clinical groups) is presented in Table 10. The results approached significance ($p = .06$) between the groups on self-aggression as predicted, the psychopaths showed less self-aggression than the other clinical groups. The difference was not significant under the arbitrary conditions but approached significance under the nonarbitrary condition. In addition, it may be noted that a $t$-test revealed a significant difference between psychopaths under the two experimental conditions ($t = 2.16, p < .05$).

In contrast to the psychopaths, the subcultural delinquents and neurotics showed more self-aggression in the nonarbitrary condition than the arbitrary condition. However, neither of these differences was significant.

**Intercorrelations among Variables**

Table 11 presents the intercorrelation matrix for the
### Table 9
Mean and Standard Deviation of the Three Clinical Groups on Self-Aggression

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychopaths</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>9</td>
<td>7.44</td>
<td>3.56</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>8</td>
<td>4.62</td>
<td>1.59</td>
</tr>
<tr>
<td><strong>Subcultural Delinquents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>10</td>
<td>8.90</td>
<td>6.69</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>8</td>
<td>11.00</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Neurotics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>7</td>
<td>7.57</td>
<td>4.89</td>
</tr>
<tr>
<td>Nonarbitrary</td>
<td>7</td>
<td>8.29</td>
<td>4.31</td>
</tr>
</tbody>
</table>
Table 10

Analysis of Variance for Self-Aggression Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frustration Condition (A)</td>
<td>1</td>
<td>.08</td>
<td>.00</td>
<td>NS</td>
</tr>
<tr>
<td>Clinical Groups (B)</td>
<td>2</td>
<td>60.40</td>
<td>3.04</td>
<td>.06</td>
</tr>
<tr>
<td>A x B Interaction</td>
<td>2</td>
<td>27.48</td>
<td>1.39</td>
<td>NS</td>
</tr>
<tr>
<td>Within Cells</td>
<td>43</td>
<td>19.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 11

Pearson Product Correlation Coefficients

\[ N = 205 \]

<table>
<thead>
<tr>
<th>Score</th>
<th>Psychopathic</th>
<th>Neurotic</th>
<th>Subcultural</th>
<th>Marlowe-Crowne SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurotic</td>
<td>.36*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcultural</td>
<td>.05</td>
<td>.43*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marlowe-Crowne Social Desirability Scale</td>
<td>-.32*</td>
<td>-.48*</td>
<td>-.22*</td>
<td></td>
</tr>
<tr>
<td>Socialization</td>
<td>-.31*</td>
<td>-.44*</td>
<td>-.29*</td>
<td>.50*</td>
</tr>
</tbody>
</table>

* Significant at .001 level (2 tailed test)
Table 12
Pearson Product Correlation Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Time in Prison</th>
<th>Marlowe-Crowne SD</th>
<th>So</th>
<th>Self-Aggression Score</th>
<th>Aggression Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.00</td>
<td>0.22*</td>
<td>0.17</td>
<td>0.29</td>
<td>0.01</td>
<td>-0.06</td>
</tr>
<tr>
<td>Time in Prison</td>
<td>0.22*</td>
<td>1.00</td>
<td>0.01</td>
<td>-0.10</td>
<td>0.03</td>
<td>0.32**</td>
</tr>
<tr>
<td>Marlowe-Crowne SD</td>
<td>0.17**</td>
<td>0.01</td>
<td>1.00</td>
<td>0.51</td>
<td>-0.10</td>
<td>-0.01</td>
</tr>
<tr>
<td>So</td>
<td>0.29*</td>
<td>-0.10</td>
<td>0.51*</td>
<td>1.00</td>
<td>0.05</td>
<td>0.14</td>
</tr>
<tr>
<td>Self-Aggression Score</td>
<td>0.01</td>
<td>0.03</td>
<td>-0.10</td>
<td>0.05</td>
<td>1.00</td>
<td>0.13</td>
</tr>
<tr>
<td>Aggression Score</td>
<td>-0.07</td>
<td>0.32**</td>
<td>-0.01</td>
<td>-0.14</td>
<td>0.13</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Significant at .01 level

** Significant at .001 level
various instruments used to select subjects. (The relationship between the Marlowe-Crowne Social Desirability Scale and the So Scale was already reported.) Many of the correlations were highly significant. Therefore, there seems to be some suggestive and meaningful patterning among the variables. These will be discussed in the next chapter.

Table 12 presents the intercorrelation matrix for subject variables such as age, time in prison, aggression, etc. as a matter of interest. To further investigate these correlations, Tables 13 and 14 present the same variables by the two experimental conditions. Of some importance may be the relationship between time in prison and aggression score, especially under arbitrary conditions ($p < .01$). This will be discussed in the next chapter.
Table 13
Pearson Product Correlation Coefficients
Arbitrary Condition

<table>
<thead>
<tr>
<th></th>
<th>Aggression Score</th>
<th>Self-Aggression Score</th>
<th>Marlowe-Crowne SD</th>
<th>Time in Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Score</td>
<td>1.00</td>
<td>0.17</td>
<td>-0.12</td>
<td>0.43*</td>
</tr>
<tr>
<td>Self-Aggression</td>
<td>0.17</td>
<td>1.00</td>
<td>-0.02</td>
<td>0.22</td>
</tr>
<tr>
<td>Marlowe-Crowne Social Desirability Scale</td>
<td>-0.12</td>
<td>-0.02</td>
<td>1.00</td>
<td>0.19</td>
</tr>
<tr>
<td>Time in Prison</td>
<td>0.43*</td>
<td>0.22</td>
<td>0.19</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Significant at .01 level
### Table 14

**Pearson Product Correlation Coefficients**  
*Nonarbitrary Condition*

<table>
<thead>
<tr>
<th></th>
<th>Aggression Score</th>
<th>Self-Aggression Score</th>
<th>Marlowe-Crowne SD</th>
<th>Time in Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Score</td>
<td>1.00</td>
<td>0.05</td>
<td>0.06</td>
<td>0.28</td>
</tr>
<tr>
<td>Self-Aggression Score</td>
<td>0.05</td>
<td>1.00</td>
<td>-0.19</td>
<td>-0.23</td>
</tr>
<tr>
<td>Marlowe-Crowne Social Desirability Scale</td>
<td>0.06</td>
<td>-0.17</td>
<td>1.00</td>
<td>0.22</td>
</tr>
<tr>
<td>Time in Prison</td>
<td>0.24</td>
<td>-0.23</td>
<td>0.22</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Chapter V
Discussion

Aggression

This study tended to support the hypothesis that psychopathic delinquents aggress more than subcultural delinquents or neurotic delinquents, confirming the findings of Hunt, Wittson, and Hunt (1952). In addition the data showed no significant difference in aggression between subcultural delinquents and neurotic delinquents.

The constantly significant difference between the experimental conditions (arbitrary versus nonarbitrary) throughout this study is in contrast to what might be expected of a group of delinquent who might be regarded as possibly hyperaggressive subjects. It might be anticipated that those subjects would disregard the difference in social appropriateness of aggressive behavior in the two frustration situations. The findings suggest that even delinquents are able to distinguish the amount of aggression appropriate to a given situation. The difference in aggression expressed in the arbitrary versus nonarbitrary condition, regardless of clinical grouping was highly significant ($p < .001$). This finding is in keeping with the findings of Pastore (1952), Cohen (1955), Rothaus and Worachel (1960), and Fishman (1964). In contrast, Kregarman and Worachel (1961) failed to find a difference between arbitrary ("unreasonable") and nonarbitrary ("reasonable") frustration. Fishman (1964), in
criticizing this study, suggested that this failure to obtain a significant difference might have been due to the inadequacy of their experimental procedure.

Pastore (1952) and more recent investigators have assumed equal frustration and equal instigation to aggress against the frustrater in both arbitrary and nonarbitrary frustration situations and they explained the lower rate of aggressive behavior in the nonarbitrary frustration situation as due to inhibition evoked by fear of retaliatory measures. The retaliation may come from the frustrater or from society in general in the form of social disapproval. While the present study supports the general hypothesis that frustration is an important factor in aggression, it is not possible to either support or disconfirm the assumption of equal instigation to aggress against the experimenter under the arbitrary and nonarbitrary conditions.

Need for Approval and Socialization

The idea of using the Marlowe-Crowne Social Desirability Scale as a measure of the need for approval was suggested by the work of Fishman (1965). In the present study the correlation between the So Scale and the MCSD was .50 ($p < .001$). Thus, one would expect both instruments to be measuring some similar aspects of functioning.

The results showed there was no significant difference between the three clinical groups on the So Scale or the MCSD scale.
The normative mean of the MCSD is 13.72 (SD = 5.78) (Crowne & Marlowe, 1960). Fisher's (1967) normative and reliability data for the standard and the cross-validated Marlowe-Crowne Social Desirability Scale produced a male mean = 16.10 (SD = 6.78). In the present study the mean was 18.25 (SD = 5.87). In other words prisoners had a higher MCSD score than the normative group of college subjects. This finding is consistent with Fisher's (1962) data that showed civil prisoners had similar MCSD scores (Mean = 19.2, SD = 1.48).

The MCSD has been interpreted as a measure of need for social approval. This view has been variously supported (Stollak, 1965) and rejected (Goldfried, 1964). The purpose of Goldfried's (1964) study was to cross-validate the Marlowe-Crowne SD Scale, items and to offer evidence for the hypothesis that social desirability is equivalent to social approval. One hundred subjects were given the scale with standard instructions, 68 subjects with a set for social desirability and 50 subjects with a set for social approval. The lack of agreement between the social-desirability and the social-approval condition casts some doubt on the hypothesis that they reflect the same phenomenon.

Miller et al. (1965) have advanced and supported the hypothesis that the M-C measures a form of situational discrimination, i.e., people high in social desirability determine the appropriate response separately for each situation they face.
If this hypothesis is correct, one would expect a difference in means between psychopathic, neurotic, and subcultural delinquents.

Breger (1966) redefined the MC-SD as measuring repressive ego-defensiveness. He engaged in three separate studies which permitted empirical comparisons between the interpretation of the MC-SD as measuring a "need for social approval" or as measuring repressive ego-defensiveness. He interpreted his results as giving support to the MC-SD scale as a measure of repressive ego-defensiveness.

This position is consistent with the later work of the authors of the MC-SD. Whereas the initial studies of Crowne-Marlowe and their students focused on the subject's need for approval from the experimenter or his peers, later studies began to link the approval motive to defensiveness (Barthel & Crowne, 1962; Strickland & Crowne, 1963).

Finally, Mosher (1965) has suggested that the MC-SD be interpreted as a measure of vulnerable self-esteem. In his study he placed subjects in a situation where gaining approval from the psychologist required accepting unfavorable personality test interpretations when acceptance would lower their self-esteem. High scoring subjects on the MC-SD scale were more likely to accept favorable but less likely to accept unfavorable "fake" personality test interpretations from the psychologist than were the low scoring subjects.

The later work of Crowne and Marlowe (1964) appears to
support Mosher's hypothesis. As a component of the approval motive (Crowne & Marlowe, 1964), high scoring subject's on the MC-SD scale were viewed as having a vulnerable self-esteem and as relying on defensive behaviors to protect themselves when their self-esteem was threatened.

Of all the interpretations of what the MC-SD actually measures, the last interpretation, a measure of vulnerable self-esteem, appears best to explain why the three clinical groups did not differ on MC-SD. All of the subjects experienced the failure of "not beating a court martial," (i.e., not being judged innocent). Weinstein, (1971) wrote:

There is a way in which failure affects motivation for interpersonal competence aside from its likelihood of occurrence. The psychological costs of failure may differ considerably from individual to individual. When failure weighs heavily for the individual, many desired responses from others do not become interpersonal tasks. The costs of trying and not succeeding so exceed the costs of deprivation that extremely high success probabilities are needed to overcome this cost threshold level. Failure avoidance rather than success maximization becomes the dominant orientation. It functions to reduce flexibility in the kinds of interpersonal tasks one will risk bargaining for and the kinds of lines of action one will risk using in the bargaining process.

The underlying basis for an orientation toward failure avoidance is likely to be low self-esteem. If we think of self-esteem in quantitative terms, failure for a low self-esteem person will use up a larger proportion of a limited and valued commodity than it will for a person high in self-esteem. For the low self-esteem person, alternatives to a present relationship, while they may be more attractive, are also apt to be seen as less attainable and potentially more costly. Thus he is less likely to
use lines of action which would increase his outcomes in a current relationship if they have any risk of disrupting it. Lines of action by others which jeopardize self-esteem are met with high levels of defensiveness. Similarly, his own behavior tends to be presented in studiously correct ways. When exposed to the evaluation of others, he simply cannot afford to be in the wrong.

Much of this syndrome is comparable to what Crowne and Marlowe (1964) call high "need for approval." If popularity with others can be taken as a partial indicator of interpersonal competence, the finding of lower sociometric scores, particularly greater peer rejection among those high in need for approval offers some substantiation for the line of reasoning taken here (Crowne & Marlowe, 1964, pp. 162-165).

Self-Aggression

The results of self-aggression scores in the present study yielded some rather interesting results. The analysis of variance revealed a significant difference ($p < .05$) between the three clinical groups, with psychopaths scoring lowest in self-aggression under both conditions. Inspection of the means of the three groups under the two conditions reveals an interesting phenomenon. Subcultural delinquents, a group which may be considered normal psychiatrically score higher (but non-significantly) on self-aggression in the nonarbitrary condition than in the arbitrary condition. This is in keeping with the findings of Kregarman and Worchel (1961) and Fishman (1964). In contrast psychopaths, while scoring the lowest on self-aggression under either experimental condition show a reversal from the subcultural ('normal') group, i.e., psychopaths scored
lower on self-aggression in the nonarbitrary than in the arbitrary condition. There was a significant difference in the performance of psychopaths under both conditions.

Thus, the results tended to support both the position of Fishman (1964) and of Cleckley (1950). "Normal" subjects tended to display more self-aggression under nonarbitrary frustration. While psychopaths displayed significantly less aggression under nonarbitrary frustration than arbitrary frustration.

Correlations

The results show a highly significant negative relationship \( (p < .001; N = 205) \) between the MC-SD and each of the three scales of the Quay-Peterson Personal Opinion Study (psychopath = -32, neurotic -48, and subcultural delinquent -21). This raises the same question investigated by Katkin (1964): is the MC-SD scale independent of psychopathology? As pointed out in the review of the literature, investigations of social desirability response set have frequently employed the Edwards Social Desirability Scale (Edwards, 1957). However, Crowne and Marlowe (1960) criticized this scale for its utilization of items which include psychopathological symptomatology. It has been suggested that high scores on the Edwards Social Desirability Scale may reflect either the subject's choice of socially desirable items or an actual absence of the symptomatology described by the items. Conversely, low scores on the ESD may reflect either an
individual's indifference to socially desirable content, or the presence of symptoms described by the scale. As a result, the ESD may be viewed as an index of social desirability response set, or psychopathology, or both.

Heilbrun (1964) has suggested, however, that the distinction drawn between social desirability and psychopathology is unnecessary and misleading. He contended that the "dimension of psychological health and social desirability are in large measure one and the same (1964, p. 385)." This contention derives some support from Edwards' (1962) finding that the ESD scale may be used as a short form of the MMPI, since prediction of MMPI raw scores from ESD scores is highly accurate.

It was in order to overcome interpretive difficulties stemming from the relationship between social desirability measures and maladjustment measures while maintaining a distinction between these indices that the Marlowe-Crowne Social Desirability Scale (MC-SD) was developed as a measure whose item content was independent of psychopathology (Crowne & Marlowe, 1960). Evidence by Crowne and Marlowe for the independence of the MC-SD from psychopathology lie in nonsignificant correlations with MMPI indices of psychopathology (N = 37) male and female undergraduates at Ohio State University. However, Katkin (1964) administered 200 subjects the MC-SD and a modified form of the MMPI, in order to evaluate the contention that the MC-SD is statistically independent of MMPI indices of psycho-
pathology. Significant negative correlations were obtained between the MC-SD and 8 of the 10 MMPI indices of psychopathology employed.

The present findings tend to support Katkin's questioning of the independence of psychopathology of the MC-SD.

The only other relationship that appeared to be of interest was the relationship between time in prison and aggression score. The correlation was .32 (p < .01). To further investigate this relationship the correlations were computed separately for arbitrary and nonarbitrary conditions. The correlation (.43) under the arbitrary condition was significant (p < .01), while the correlation (.23) under the nonarbitrary was not significant. Such a significant correlation suggests certain implications for the training of custodial and correction personnel. Although a correlation cannot be considered a cause-effect relationship, the results suggest that correctional personnel be trained to deal in a fair and consistent manner with prisoners. Correctional personnel should be cautioned that arbitrary treatment in dealing with prisoners, especially prisoners who have been incarcerated for a long period, could lead to a dangerous situation in which the probability of aggression is increased.
Chapter VI
Summary

The present study grew out of several areas of research. The main interest was stimulated by the work of Hunt, Wittson, and Hunt (1952) who found that psychopaths had a significantly higher incidence of insubordination (a form of aggression) than normals or persons diagnosed as belonging to other psychiatric categories. This finding plus the clinical experience of the author in a military setting suggested the main prediction that psychopaths would aggress significantly more than neurotics or subcultural delinquents, (a group which Quay and Peterson (1968) considered to be psychiatrically normal). In order to test this hypothesis the Personal Opinion Study (Quay & Peterson, 1968) was used to identify subjects for the three clinical groups.

Another contemporary area of research that stimulated interest was the Marlowe-Crowne Social Desirability Scale (MC-SD) interpreted by the authors as an indirect measure of a "need for approval" (Crowne & Marlowe, 1961). Based on Gough's (1948) socialization theory of the etiology of psychopathy one would expect psychopaths to show little "need for approval or socialization." This generated the hypothesis that the three clinical groups would differ on measures of the "need for approval" and socialization with the order being the inverse of the expression of aggression.
The stimulus to aggression was varied by subjecting individuals to one of two types of a frustration situation: an arbitrary and a nonarbitrary one. This separation was suggested by Pastore's (1952) research on the frustration-aggression hypothesis and his concept of arbitrariness of frustration.

The subjects in the study were inmates at a disciplinary barracks. All prisoners assigned to the institution were serving a sentence in excess of six months. Two hundred and fifty subjects were randomly selected from the prison population, by means of a computer. Of these, 205 who were willing to participate, were administered the Personal Opinion Study and the Personal Reaction Inventory (the "cover name" of the Marlowe-Crowne Social Desirability Scale) and the Sc Scalo of the California Psychological Inventory. This testing yielded 17 psychopaths, 14 neurotics and 18 subcultural delinquents.

Each subject was tested individually by the present writer who presented himself as a graduate student conducting experiments which were required as part of his graduate studies. Experimental subjects were asked to perform a simple task for which they would receive a bonus of $2 and a letter of appreciation for their treatment file if they succeeded. Approximately one-half of the subjects in each clinical subgroup was randomly assigned to the arbitrary frustration condition while the other half were assigned to the nonarbitrary condition. Subjects were then given the opportunity to aggress directly against the
experimenter-frustrater, as well as to express self-aggression, on a so-called research evaluation questionnaire. Subjects were handed a sealed envelope containing the questionnaire along with a letter from the experimenter's "research director" requesting that they evaluate the student and his research in order to help the supervisor assess and grade the student's research abilities.

A postexperimental interview followed the session. This interview served two purposes. The main purpose was to disclose the deceptions employed in the procedure. This was to insure the subject would not return to the prison routine in an "aggressive mood." All subjects were informed that they did in fact get the letter of appreciation for their treatment file and the $2 bonus would be credited to their prisoner account. The second purpose was to determine the subject's impression about the purpose of the study in order to eliminate suspecting subjects.

The findings confirmed the first prediction. It was found that psychopaths express significantly more aggression than neurotics or subculturals under arbitrary conditions. The findings caused rejection of the prediction concerning the need for approval and socialization. There was little difference between psychopathic, neurotic and subcultural delinquents. For incarcerated individuals, the Marlowe-Crowne Social Desirability Scale seems to be a measure more of vulnerable
self-esteem than of the need for approval.
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Pastore, N. The role of arbitrariness in the frustration-aggression hypothesis. *Journal of Abnormal and Social Psychology*, 1952, 47, 728-731.


## Offenses of Prisoners

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<td>Mutiny-Riot</td>
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<td>Violate Arrest-Escape</td>
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Personal Reaction Inventory

1. Before voting I thoroughly investigate the qualifications of all the candidates. (T)

2. I never hesitate to go out of my way to help someone in trouble. (T)

3. It is sometimes hard for me to go on with my work if I am not encouraged. (F)

4. I have never intensely disliked anyone. (T)

5. On occasion I have had doubts about my ability to succeed in life. (F)

6. I sometimes feel resentful when I don't get my way. (F)

7. I am always careful about my manner of dress. (T)

8. My table manners at home are as good as when I eat out in a restaurant. (T)

9. If I could get into a movie without paying and be sure I was not seen I would probably do it. (F)

10. On a few occasions, I have given up doing something because I thought too little of my ability. (F)

11. I like to gossip at times. (F)

12. There have been times when I felt like rebelling against people in authority even though I knew they were right. (F)

13. No matter who I'm talking to, I'm always a good listener. (T)

14. I can remember "playing sick" to get out of something. (F)

15. There have been occasions when I took advantage of someone. (F)

16. I'm always willing to admit it when I make a mistake. (T)

17. I always try to practice what I preach. (T)

18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people. (T)
19. I sometimes try to get even rather than forgive and forget. (F)
20. When I don't know something I don't at all mind admitting it. (T)
21. I am always courteous, even to people who are disagreeable. (T)
22. At times I have really insisted on having things my own way. (F)
23. There have been occasions when I felt like smashing things. (F)
24. I would never think of letting someone else be punished for my wrong-doings. (T)
25. I never resent being asked to return a favor. (T)
26. I have never been irked when people expressed ideas very different from my own. (T)
27. I never make a long trip without checking the safety of my car. (T)
28. There have been times when I was quite jealous of the good fortune of others. (F)
29. I have almost never felt the urge to tell someone off. (T)
30. I am sometimes irritated by people who ask favors of me. (F)
31. I have never felt that I was punished without cause. (T)
32. I sometimes think when people have a misfortune they only got what they deserved. (F)
33. I have never deliberately said something that hurt someone's feelings. (T)
Social Opinion Scale

1. I often feel that I made a wrong choice in my occupation. (F)
2. When I was going to school I played hooky quite often. (F)
3. I think Lincoln was greater than Washington. (T)
4. I would do almost anything on a dare. (F)
5. With things going as they are, it's pretty hard to keep up hope of amounting to something. (F)
6. I think I am stricter about right and wrong than most people. (T)
7. I am somewhat afraid of the dark. (T)
8. I hardly ever get excited or thrilled. (F)
9. My parents have often disapproved of my friends. (F)
10. My home life was always happy. (T)
11. I often act on the spur of the moment without stopping to think. (F)
12. My parents have generally let me make my own decisions. (T)
13. I would rather go without something than ask for a favor. (F)
14. I have had more than my share of things to worry about. (F)
15. When I meet a stranger I often think that he is better than I am. (T)
16. Before I do something I try to consider how my friends will react to it. (T)
17. I have never been in trouble with the law. (T)
18. In school I was sometimes sent to the principal for cutting up. (F)
19. I keep out of trouble at all costs. (T)
20. Most of the time I feel happy. (T)
21. I often feel as though I have done something wrong or wicked. (F)
22. It is hard for me to act natural when I am with new people. (T)
23. I have often gone against my parents' wishes. (F)
24. I often think about how I look and what impression I am making upon others. (T)
25. I have never done any heavy drinking. (T)
26. I find it easy to "drop" or "break with" a friend. (F)
27. I get nervous when I have to ask someone for a job. (T)
28. Sometimes I used to feel that I would like to leave home. (F)
29. I never worry about my looks. (F)
30. I have been in trouble one or more times because of my sex behavior. (F)
31. I go out of my way to meet trouble rather than try to escape it. (F)
32. My home life was always very pleasant. (T)
33. I seem to do things that I regret more often than other people do. (F)
34. My table manners are not quite as good at home as when I am out in company. (T)
35. It is pretty easy for people to win arguments with me. (F)
36. I know who is responsible for most of my troubles. (F)
37. I get pretty discouraged with the law when a smart lawyer gets a criminal free. (T)
38. I have used alcohol excessively. (F)
39. Even when I have gotten into trouble I was usually trying to do the right thing. (T)
40. It is very important to have enough friends and social life. (T)
41. I sometimes wanted to run away from home. (F)
42. Life usually hands me a pretty raw deal. (F)
43. People often talk about me behind my back. (F)
44. I would never play cards (poker) with a stranger. (T)
45. I don't think I'm quite as happy as others seem to be. (F)
46. I used to steal sometimes when I was a youngster. (F)
47. My home as a child was less peaceful and quiet than those of most other people. (F)
48. Even the idea of giving a talk in public makes me afraid. (T)
49. As a youngster in school I used to give the teachers lots of trouble. (F)
50. If the pay was right I would like to travel with a circus or carnival. (F)
51. I never cared much for school. (F)
52. The members of my family were always very close to each other. (T)
53. My parents never really understood me. (F)
54. A person is better off if he doesn't trust anyone. (F)
Factor Scales with Item Factor Loadings

Factor I: Psychopathic Delinquency

1. The best teachers are the ones who are very easy. (.36)
2. In this world you're a fool if you trust other people. (.46)
3. My teachers have given me lower grades than I deserve just because they think I am a trouble-maker. (.39)
4. I don't worry about the future; there's nothing much I can do about it anyway. (.39)
5. When I think I am right nobody can change my mind. (.32)
6. I don't mind hurting people who get in my way. (.49)
7. Most people are squares. (.50)
8. You have to get the other guy before he gets you. (.39)
9. Policemen are friendly and try to help you. (.46)
10. You have to admire somebody who has enough guts to talk back to a cop. (.47)
11. One day I will get even with everybody who has done me dirty. (.48)
12. I have never seen a policeman yet who cared about anyone but himself. (.52)
13. You gotta fight to get what's coming to you. (.40)
14. Only a fool would spend his life working a 40 hour week. (.38)
15. I never worry about a thing. (.39)
16. I do what I want to, whether anybody likes it or not. (.62)
17. I can easily "shake it off" when I do something I know is wrong. (.45)
18. A person is better off if he doesn't trust anyone. (.56)
19. The best way to get ahead in the world is to be tough. (.48)
20. All this talk about honest and justice is a lot of nonsense. (.52)
21. The only way to settle anything is to lick the guy. (.57)
22. It's dumb to trust older people. (.56)
23. It doesn't matter what you do as long as you get your kicks. (.50)
24. The most important thing is to win no matter how. (.54)
25. Everyone should be required to finish high school. (.38)
26. I owe my family nothing. (.41)
27. The only way to make big money is to steal it. (.58)
28. The worst thing a person can do is to get caught. (.51)
29. A guy's only protection is his friends. (.43)
30. A person who steals from the rich isn't really a thief. (.44)
31. If you're clever enough, you can steal anything and get away with it. (.43)
32. The only way to get what you want is to take it. (.54)
33. Success in this world is a matter of luck. (.40)
34. Nobody has ever called me "chicken" and gotten by with it. (.39)
35. I don't really care what happens to me. (.43)
36. Women are only good for what you can get out of them. (.42)
37. The only way to make out is to be tough. (.51)
38. Once you've been in trouble, you haven't a chance. (.45)
39. Hitting someone sometimes makes me feel good inside. (.41)
40. Being successful usually means having your name in the paper. (.43)
41. If you don't have enough to live on, it's OK to steal. (.50)
42. It is important to think about what you do. (.29)
43. I can outwit almost anybody. (.34)
44. Whenever I do something I shouldn't, it worries me. (.40)
45. It's all right to steal from the rich because they don't need it. (.54)

Factor II: Neurotic Delinquency

1. I am so touchy on some subjects that I can't talk about them. (.34)
2. I feel tired a good deal of the time. (.47)
3. People seem to like me at first, but I have trouble keeping friends. (.37)
4. I never wish that I were dead. (.34)
5. It seems as if people are always telling me what to do, or how to do things. (.49)
6. At times I have a strong urge to do something harmful or shocking. (.44)
7. I think people like me as much as they do other people. (.40)
8. Even when things go right for a while I know it won't last. (.38)
9. I never have the habit of jerking my head, neck, or shoulders. (.41)
10. When I see people laughing I often think they are laughing at me. (.36)
11. I just can't stop doing things that I am sorry for later. (.31)
12. I usually feel well and strong. (.35)
13. I sometimes feel that no one loves me. (.42)
14. My future looks bright. (.32)
15. Sometimes I think I won't live very long. (.33)

16. My feelings are never hurt so badly that I cry. (.42)

17. I don't think I'm quite as happy as others seem to be. (.57)

18. I sometimes wish I'd never been born. (.44)

19. My way of doing things is apt to be misunderstood by others. (.42)

20. I must admit I find it very hard to work under strict rules and regulations. (.40)

21. I often get so nervous I have to get up and move around to calm myself down. (.37)

22. I just don't seem to get the breaks other people do. (.44)

23. I get so angry that I "see red." (.43)

24. It's hard to get others to like me. (.33)

25. My eyes often pain me. (.30)

26. My life is pretty boring and dull most of the time. (.37)

27. It is hard for me to just sit still and relax. (.41)

28. Even when things go right I know it won't last. (.34)

29. I'd like to start a new life somewhere else. (.33)

30. I feel that I have often been punished without cause. (.41)

Factor III: Subcultural Delinquency

1. I would be a happier person if I could satisfy all my parent's wishes. (.34)

2. Sometimes I wonder if I'll ever grow up. (.39)

3. My folks usually blame bad company for the trouble I get into. (.44)

4. Before I do something, I try to consider how my friends will react to it. (.35)
5. We ought to pay our elected officials better than we do. (.30)

6. I never used to steal little things from the neighborhood stores. (.27)

7. I often say mean things to other people and then feel sorry for it afterwards. (.31)

8. I am always hurting the people I love the most. (.36)

9. Most boys stay in school because the law says they have to. (.40)

10. When a group of boys get together they are bound to get in trouble sooner or later. (.35)

11. It is very important to have enough friends and social life. (.36)

12. Sometimes I have stolen things that I didn't really want. (.46)

13. There is something wrong with a person who can't take orders without getting angry or resentful. (.34)

14. I am doing as much or as well as my parents expect me to. (.31)

15. For all the things I have done I should have been punished more than I have. (.27)

16. When I was going to school I played hooky quite often. (.63)

17. I find it hard to "drop" or "break with" a friend. (.38)

18. I wish I had not been such a disappointment to my family. (.42)

19. In school I was sometimes sent to the principal for cutting up. (.51)

20. I have never been in trouble with the law. (.57)

21. I have had a real fight. (.37)

22. The average policeman is not strict enough about the law. (.32)
23. No matter how hard I try I always get caught. (.28)
24. I have been expelled from school or nearly expelled. (.57)
25. On my report card I usually get some failure marks. (.51)
The Personal Opinion Study

Herbert C. Quay, Ph.D. and Donald R. Peterson, Ph.D.

1. The best teachers are the ones who are very easy. (T)
2. I would be a happier person if I could satisfy all my parent's wishes. (T)
3. Sometimes I wonder if I'll ever grow up. (T)
4. My folks usually blame bad company for the trouble I get into. (T)
5. In this world you're a fool if you trust other people. (T)
6. Before I do something, I try to consider how my friends will react to it. (T)
7. We ought to pay our elected officials better than we do. (T)
8. I never used to steal little things from the neighborhood stores. (F)
9. My teachers have given me lower grades than I deserve just because they think I am a trouble-maker. (T)
10. I don't worry about the future; there's nothing much I can do about it anyway. (T)
11. I often say mean things to other people and then feel sorry for it afterwards. (T)
12. When I think I am right, nobody can change my mind. (T)
13. I don't mind hurting people who get in my way. (T)
14. Most people are squares. (T)
15. I am always hurting the people I love the most. (T)
16. I am so touchy on some subjects that I can't talk about them. (T)
17. You have to get the other guy before he gets you. (T)
18. Most boys stay in school because the law says they have to. (T)
19. Policemen are friendly and try to help you. (F)
20. You have to admire somebody who has enough guts to talk back to a cop. (T)
21. One day I will get even with everybody who has done me dirty. (T)
22. I have never seen a policeman yet who cared about anyone but himself. (T)
23. I feel tired a good deal of the time. (T)
24. People seem to like me at first, but I have trouble keeping friends. (T)
25. When a group of boys get together they are bound to get in trouble sooner or later. (T)
26. You gotta fight to get what's coming to you. (T)
27. I never wish that I were dead. (F)
28. Only a fool would spend his life working a 40 hour week. (T)
29. I never worry about a thing. (T)
30. It seems as if people are always telling me what to do, or how to do things. (T)
31. I do what I want to, whether anybody likes it or not. (T)
32. At times I have a strong urge to do something harmful or shocking. (T)
33. I think people like me as much as they do other people. (F)
34. Even when things go right for a while I know it won't last. (T)
35. I can easily "shake it off" when I do something I know is wrong. (T)
36. I never have the habit of jerking my head, neck, or shoulders. (F)
37. A person is better off if he doesn't trust anyone. (T)
38. The best way to get ahead in the world is to be tough. (T)
39. It is very important to have enough friends and social life. (T)
40. All this talk about honesty and justice is a lot of nonsense. (T)
41. There is something wrong with a person who can't take orders without getting angry or resentful. (T)
42. I am doing as much or as well as my parents expect me. (F)
43. When I see people laughing I often think they are laughing at me. (T)
44. The only way to settle anything is to lick the guy. (T)
45. It's dumb to trust older people. (T)
46. I just can't stop doing things that I am sorry for later. (T)
47. For all the things I have done I should have been punished more than I have. (T)
48. I usually feel well and strong. (F)
49. I sometimes feel that no one loves me. (T)
50. When I was going to school I played hooky quite often. (T)
51. My future looks bright. (F)
52. I find it hard to "drop" or "break with" a friend. (T)
53. Sometimes I think I won't live very long. (T)
54. It doesn't matter what you do as long as you get your kicks. (T)
55. I wish I had not been such a disappointment to my family. (T)
56. The most important thing is to win no matter how. (T)
57. Everyone should be required to finish high school. (F)
58. I owe my family nothing. (T)
59. My feelings are never hurt so badly that I cry. (F)
60. The only way to make big money is to steal it. (T)
61. In school I was sometimes sent to the principal for cutting up.  (T)
62. I have never been in trouble with the law.  (F)
63. The worst thing a person can do is to get caught.  (T)
64. I don't think I'm quite as happy as others seem to be.  (T)
65. I sometimes wish I'd never been born.  (T)
66. A guy's only protection is his friends.  (T)
67. A person who steals from the rich isn't really a thief.  (T)
68. I have had a real fight.  (T)
69. My way of doing things is apt to be misunderstood by others.  (T)
70. If you're clever enough, you can steal anything and get away with it.  (T)
71. The average policeman is not strict enough about the law.  (T)
72. The only way to get what you want is to take it.  (T)
73. I must admit I find it very hard to work under strict rules and regulations.  (T)
74. Success in this world is a matter of luck.  (T)
75. I often get so nervous I have to get up and move around to calm myself down.  (T)
76. Nobody has ever called me "chicken" and gotten by with it.  (T)
77. I just don't seem to get the breaks other people do.  (T)
78. I get so angry that I "see red."  (T)
79. It's hard to get others to like me.  (T)
80. I don't really care what happens to me.  (T)
81. No matter how hard I try I always get caught.  (T)
82. My eyes often pain me.  (T)
83. Women are only good for what you can get out of them. (T)
84. My life is pretty boring and dull most of the time. (T)
85. I have been expelled from school or nearly expelled. (T)
86. The only way to make out is to be tough. (T)
87. It is hard for me to just sit still and relax. (T)
88. Once you've been in trouble, you haven't got a chance. (T)
89. Hitting someone sometimes makes me feel good inside. (T)
90. Being successful usually means having your name in the paper. (T)
91. Even when things go right I know it won't last. (T)
92. I'd like to start a new life somewhere else. (T)
93. If you don't have enough to live, it's OK to steal. (T)
94. It is important to think about what you do. (F)
95. I can outwit almost anybody. (T)
96. On my report card I usually get some failure marks. (T)
97. I feel that I have often been punished without cause. (T)
98. Whenever I do something I shouldn't, it worries me. (F)
99. It's all right to steal from the rich because they don't need it. (T)
100. Sometimes I have stolen things I really didn't want. (T)
Arousal Script for Subjects in the Arbitrary Frustration Condition

"I don't know—you made it, but the more I think about it, the less I think you deserve the $2 bonus and the letter of appreciation. Frankly, I don't think you gave a damn about the whole thing. Remember, I said it was important that you do your best, and I don't think you did. No, I don't think I'll give you that $2 and letter because you didn't try hard enough. I can't give a bonus to a man who didn't give a damn even if he did succeed."

"Well, my study is over. Here is my supervisor's questionnaire. The instructions are all supposed to be inside the envelope."

Arousal Script for Subjects in the Nonarbitrary Frustration Condition

"That does it, you failed to make it in the time limit. So, you don't get the $2 and the letter. That was our agreement. Do you know that 95% of high school students studied have been able to do the task successfully? Remember, I said it was important that you do your best, that you make the effort. Maybe you didn't give a damn about the whole thing, because if you did you would have made it. In any case, since you did fail, for whatever reason, you don't get the $2.

"Well, my study is over. Here is my supervisor's questionnaire. The instructions are all supposed to be inside the envelope."

* Modified adaptation from Fishman, 1964.
TO THE SUBJECT:

The enclosed evaluation questionnaire is filled out by all people participating in research conducted by psychology graduate students. Please be honest and open in filling it out. We have found that evaluations by subjects are one of the best methods of evaluating and controlling the way in which research is carried out by the graduate students in our psychology research courses. This evaluation is necessary in order to help us identify individuals who conduct experiments which are not in the best interest of subjects. Also, your evaluation is an important aid in rating and grading the research carried out by this student. So please let your feelings guide you in filling out the questionnaire. It is important to identify both good and bad students. When you have completed the questionnaire, please place it in the accompanying envelope addressed to The Research Director, Loyola University. Please be sure to seal the envelope so the graduate student does not know what you put down on the questionnaire. Return the envelope to the student sealed as he must return a sealed questionnaire for each subject he does an experiment with. Thank you for your cooperation.

Sincerely,

Dr. William Hunt
Research Director
Loyola University
Research Evaluation Questionnaire

Part I

Please read each question carefully and place a circle around any number from -5 to +5 which best expresses your opinions or feelings. Be sure to read carefully the statements just below the numbers. Some numbers have no statements printed directly below them. These numbers should be circled when your feelings or opinions fall somewhere between the feelings or opinions indicated.

1. How much did you like participating in the study just completed?

\[\begin{array}{ccccccc}
-5 & -4 & -3 & -2 & -1 & +1 & +2 & +3 & +4 & +5 \\
\text{disliked} & \text{disliked} & \text{liked} & \text{liked} \\
\text{very much} & \text{moderately} & \text{moderately} & \text{very much}
\end{array}\]

2. How worthwhile was it to participate in the study just completed?

\[\begin{array}{ccccccc}
-5 & -4 & -3 & -2 & -1 & +1 & +2 & +3 & +4 & +5 \\
\text{complete waste} & \text{moderate waste} & \text{moderately} & \text{very} \\
\text{of time} & \text{of time} & \text{worthwhile} & \text{worthwhile}
\end{array}\]

3. If you were asked by the experimenter to volunteer for another study which he was conducting, would you volunteer?

\[\begin{array}{ccccccc}
-5 & -4 & -3 & -2 & -1 & +1 & +2 & +3 & +4 & +5 \\
\text{definitely} & \text{probably} & \text{probably} & \text{definitely} \\
\text{not} & \text{not} & \text{yes} & \text{yes}
\end{array}\]

4. In your opinion, how competent was the student who conducted the experiment in which you participated.

\[\begin{array}{ccccccc}
-5 & -4 & -3 & -2 & -1 & +1 & +2 & +3 & +4 & +5 \\
\text{very} & \text{moderately} & \text{moderately} & \text{very} \\
\text{incompetent} & \text{incompetent} & \text{competent} & \text{competent}
\end{array}\]

5. In your opinion, how much of a contribution will this study make to the field of psychology.

\[\begin{array}{ccccccc}
-5 & -4 & -3 & -2 & -1 & +1 & +2 & +3 & +4 & +5 \\
\text{no} & \text{very little} & \text{moderate} & \text{big} \\
\text{contribution} & \text{contribution} & \text{contribution}
\end{array}\]

* Adopted from Fishman, 1964.
6. How mature was the experimenter in relating to you?

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7. Below are 5 pairs of adjectives. For each pair, check the one adjective which best describes the student who conducted the experiment just completed.

a. understanding ___ inconsiderate ___
b. pleasant ___ unpleasant ___
c. polite ___ impolite ___
d. friendly ___ unfriendly ___
e. reasonable ___ unreasonable ___

Part II

In evaluating experiments and experimenters, it is helpful to find out how the experiment (or experimenter) made the subject feel about himself (herself). Therefore, some of the following questions ask how you feel about YOURSELF now that the experiment is over. Please read each question carefully and place a circle around any number which best describes your feelings or opinions.

1. How satisfied do you feel about your performance as a subject?

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2. How happy or unhappy do you feel?

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3. How angry do you feel toward the experimenter?

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4. How tense do you feel?

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5. Did you feel worried at any time during the experiment?

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6. Were you angry at yourself?

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7. Did you feel afraid during the experiment?

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<td>all afraid</td>
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8. How friendly did you feel toward the experimenter?

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9. How bored or interested did you feel during the experiment?

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</table>

10. How frustrated did you feel during the experiment?

<table>
<thead>
<tr>
<th>-5</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
<th>+5</th>
</tr>
</thead>
<tbody>
<tr>
<td>very</td>
<td>moderately</td>
<td>slightly</td>
<td>not at</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>frustrated</td>
<td>frustrated</td>
<td>frustrated</td>
<td>all frustrated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPROVAL SHEET

The dissertation submitted by Ernest J. Lenz, Jr. has been read and approved by members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

DATE

Jan. 11, 1973

William E. Hunt

ADVISOR'S SIGNATURE