

ANXIETY AND CHOICE  
BEHAVIOR IN PSYCHO-  
PATHIC AND....

R. Kahler, 1969

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ANXIETY AND CHOICE BEHAVIOR IN PSYCHOPATHIC  
AND NONPSYCHOPATHIC CRIMINALS

by

Richard Allen Kahler

Submitted to the Faculty of the Graduate School  
in Partial Fulfillment of the Requirements  
for the Degree, Doctor of Philosophy,  
in the Department of Psychology,  
Indiana University  
June 1969

We, the undersigned, being members of the candidate's research committee, do hereby accept this dissertation, submitted by Richard Allen Kahler, as fulfilling part of the requirements for the degree, Doctor of Philosophy, in the Department of Psychology, Indiana University. Dated May 19, 1969.

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## Abstract

Clinicians have long puzzled over an explanation for the development and persistence of antisocial and self-defeating psychopathic behavior. Recently several investigators, using Cleckley's conception of psychopathy, have tested the hypothesis that faulty fear conditionability can account for psychopathic behavior. Specifically, the "conditioned fear hypothesis" has been advanced as an explanation for the typical psychopath's repeated failures to consider meaningfully the consequences of his actions. This hypothesis states that the psychopath has difficulty conditioning fear to cues preceding a noxious stimulus. Thus the psychopath does not readily learn to make avoidance responses, which are presumably reinforced by fear reduction. Consequently, socially required inhibitions are not learned. Support for this hypothesis has been found using simple conditioning and choice paradigms.

The purpose of this study was to test whether psychopaths perform in a behavioral choice situation in a way consistent with the idea that they experience minimal anticipatory anxiety. It was felt that this study would provide needed data for the further support and generalization of a low anxiety conception of psychopathy.

Using Lykken's rationale in the development of the Activity Preference Questionnaire, five anxiety tasks were matched and paired with five non-anxiety arousing tasks, according to their degree of unpleasantness. Twenty-five psychopaths and 25 nonpsychopaths were required to make a choice between each pair, after being informed

they had to perform the tasks chosen. The Ss were required to perform each of the tasks selected. Subjects were selected on the basis of nominations using Cleckley's criteria of psychopathy and on the basis of Es' diagnostic impression from reviewing their records. It was predicted that if the psychopaths were less anxious, they would select significantly more of the anxiety tasks than the nonpsychopaths.

For purposes of comparison with previous studies, several additional measures of anxiety were taken. For instance, the Ss were placed in an immediate vs. delayed shock choice situation, similar to that used by Hare. Later the MMPI and Lykken's APQ were administered to obtain additional anxiety comparison measures for the Ss.

The results suggested that the psychopaths and nonpsychopaths differed neither in their choice behavior nor on any of the other anxiety measures obtained. Thus it was concluded that the psychopaths and nonpsychopaths selected for this study did not differ in anxiety reactivity.

Discussion of the results focused on the subject selection procedure and the anxiety measures employed. It was concluded that both factors are extremely important in the interpretation of the results obtained. Suggestion was made that future research direct more attention to the effect of the psychopath's actions on his immediate environment, rather than just focusing on the presence or absence of a complex and poorly defined construct such as anxiety.

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## Introduction

The conception of psychopathy used in this study follows the description of this personality disorder as it has been presented by Cleckley (1964). It has been proposed by some investigators that psychopathic behavior can be explained by the hypothesis that psychopaths are less anxious than nonpsychopaths (Lykken, 1957; Schachter & Latané, 1964; Hare, 1965). Their research has concentrated on the hypothesized difficulty psychopaths have in conditioning a fear response in avoidance learning situations. The tasks used were simple and the psychopaths were found to learn the avoidance responses less readily than nonpsychopathic controls. Shock was used as the noxious reinforcer. Such learning presumably requires, first, the classical conditioning of a mediating fear response, the avoidance response then being instrumentally reinforced by fear reduction.

This study attempted to test further and to clarify the hypothesis that low anxiety can account for psychopathic behavior. This was done by placing selected psychopathic and nonpsychopathic Ss in a series of behavioral forced-choice situations. In each case they were required to choose between an anxiety-laden task and a tedious or onerous task, matched previously on a dimension of degree of unpleasantness. Five such choices were required of each S. Assuming that psychopaths are less prone to anxiety, it would follow that they should choose the anxiety-providing alternative more frequently than

a nonpsychopathic control group. The experimental rationale for this study is the same as that proposed by Lykken (1965) in the development of his forced-choice Activity Preference Questionnaire (APQ), a paper-and-pencil instrument used to differentiate psychopaths from nonpsychopaths.

In this study, however, the Ss were required to actually perform each of the tasks selected. They were informed of this before they made their first choice.

Thus, in one sense, this study can be viewed as an approach to the construct validation of Lykken's questionnaire. But, in addition, the data obtained can be seen as adding to the empirical confirmation or disconfirmation of the hypothesis that psychopathic behavior can be explained by a lack of anticipatory anxiety.

Also, the various tasks selected for this study afforded a broader sampling of anxiety-arousing stimuli than the simple anticipation or shock used in most previous studies. This study was thus conceived as a test of the low anxiety hypothesis and its relation to psychopathic behavior in a wide range of behavioral situations. Such experimentation was deemed necessary to determine more clearly the extent to which anxiety, or the lack thereof, influences the psychopath's reactions in everyday life.

#### Historical Survey of the Concept of Psychopathic Personality

Cleckley (1964) has argued for some time that there is a distinct, relatively well-defined group of disordered antisocial people who have been all but overlooked and neglected by psychiatric workers because

their disorder was not fully recognized, understood, or appreciated. His approach has been that of a clinical observer, primarily interested in describing in detail the overt behavioral characteristics of a troublesome group of antisocial patients he prefers to call "psychopaths". He has argued that the concept of psychopathic personality came to include individuals so heterogeneous and personality characteristics so ill-derived that the label for all practical purposes was rendered meaningless. In an attempt to alter this state of affairs he described his personal experience with numerous cases in which a clear-cut, circumscribed, and psychiatrically meaningful disorder was clinically evident. He further attempted to differentiate this disorder from various other common and obscure psychiatric disorders. His use of the term "psychopath" was thus limited to patients possessing most or all of the behavioral characteristics which he felt were indicative of this disorder. His criteria of psychopathy appear in a later section of this paper.

Historically the first important mention of behavior patterns related to the present-day conception of psychopathy was by Pinel in 1801 (Kavka, 1949). Pinel wrote a treatise on a type of patient, who was, according to him, seriously disordered while having no demonstrable thinking defect or loss of reasoning. Pinel labelled this syndrome "manie sans delire", and he emphasized that although the powers of reason remained intact, an emotional disturbance was readily apparent.

A similar disorder was described by Benjamin Rush in an article

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published in 1812 (Craft, 1965). In observation of such cases he was impressed by what he called a "derangement of the will," a condition he felt to be the result of congenital defect. He is quoted by Craft as saying:

There are many instances of persons of sound understanding, and some of uncommon talents who are affected with this lying disease in the will. It differs from exculpatory, fraudulent and malicious lying in being influenced by none of the motives of any of them. Persons thus diseased cannot speak the truth upon and subject.

Rush went on to state, "The moral faculty, conscience, and sense of deity are sometimes totally deranged" (Craft, 1965). Thus, in Rush's writing we have one of the first attempts to describe the psychopath independent of other related emotional and behavioral disturbances.

An Englishman, Pritchard, writing in 1835, has been generally credited with calling professional medical attention to psychopathy. He called the disorder "moral insanity" which he described as follows (Cleckley, 1959):

... the moral and active principles of the mind are strongly perverted or depraved; the power of self-government is lost or greatly impaired and the individual is found to be incapable not of talking or reasoning upon any subject proposed to him, but of conducting himself with decency and propriety in the business of life.

However, from a description of several cases known to him, it is evident that Pritchard included in this category not only what would today be called psychopaths, but also cases of manic-depressive illness, pyromania, and kleptomania (Craft, 1965). Only when discussing a particular subset of cases under moral insanity did Pritchard appear

to be touching on the behavior disorder observed by Cleckley. To quote him (Craft, 1965):

I know some examples of a still more puzzling kind, namely where the propensity to theft co-exists with other defects of morality as with a tendency to lying and deception, or with a total recklessness. The proof of insanity in such instances is difficult and obscure.

Following Fritchard it became generally accepted to speak about various seriously disordered antisocial personalities as a separate psychiatric entity worthy of attention, study, and concern.

Craft (1965) in his historical review of the concept of psychopathy has credited Skoe with the extension in 1857 of the concept of "moral insanity" to alcoholic addicts who demonstrated "an insatiable craving for stimulants, loss of self-control and a shameless disregard for the truth". This description by Skoe is remarkably close to Cleckley's observations that many psychopaths drink to excess in addition to their other antisocial characteristics.

During the latter part of the nineteenth century, the use of the concept of moral insanity was at times strongly discouraged, for instance by Ordronaux (McCord & McCord, 1964). It was felt that the medico-legal use of such ideas would undermine the traditional Christian concept of sin and the very basis of criminal responsibility. The legal issue of what to do with the psychopath is still very much of a problem today. Often, as Cleckley has observed, the psychopathic offender is moved back and forth from jail to hospital, with all concerned being puzzled as to how best to handle him.



In spite of opposition, the old category of moral insanity was revived and popularized under a new label by Koch in 1891 and by Kraepelin in 1915 (Partridge, 1930). Thereafter, until recently, dissimilar types and manifestations of psychopathology were confusingly blended together in the single category of psychopathic personality. As a consequence, one was never sure what kind of person was being referred to when this diagnostic term was used. Part of this confusion was probably attributable to the generic meaning of the term psychopathy. As Preu (1944) pointed out, the term came to be used as a wastebasket category by many clinicians when no other suitable psychiatric syndrome could be readily diagnosed. This heterogeneous group still included the patients demonstrating behavior once labelled "moral insanity", but they were often undifferentiated from other neurotic and personality disorders. According to Preu (1944), this diagnosis was made on the basis of exclusion rather than being based on any particular positive psychiatric symptoms, signs, or behavioral characteristics being apparent.

As early as 1891 Koch had included a wide variety of disorders in his concept of "constitutional psychopathic inferiority" (Partridge, 1930). Even reactions now commonly classified as neuroses were included in this category. His term "constitutional" reflected the belief of many clinicians of the time that there was a genetic defect present in these cases. This defect supposedly predisposed afflicted individuals toward various degrees of behavioral and social maladjustment in later life. Even visible stigmata of degeneration

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were often said to be present as outward evidence of the inner inferiority.

Many writers, including Kraepelin, Schneider, and Kahn, divided the category of psychopathic personality into numerous subtypes (Cleckley, 1964). Most of these subtypes had little or nothing to do with antisocial behavior or "moral" deficiencies. Being purely descriptive and rationalistic these accounts offered no empirical evidence to support such extensive and exhaustive subcategorizing of psychopathy. It was not at all evident that these subtypes had anything in common except for behavioral or emotional maladjustment in the broadest sense. Such writing merely confused the issue and further hindered efforts to obtain more empirical observations of the psychopath's actual behavior.

Kahn went to the extreme by making no distinction between psychopathy and neurosis (Preu, 1944). He used the term psychopathic personality to apply to any social maladjustment which deviated from normal in which there was a disproportionate development, exaggeration, or deficiency of the ordinary traits of behavior and temperament. Thus, as Cleckley (1964) observed, such a viewpoint might be an admirable theory or approach to mental disturbance in general, but have little or nothing to do with his conception of the psychopath.

Besides Cleckley, accounts and formulations of psychopathy more closely related to the subject dealt with in this thesis include those of Partridge (1930), Harpman (1941), Greenacre (1944), Jenkins (1960), McCord & McCord (1964), and Donnelly (1966).

Partridge (1930) introduced the term "sociopath" to describe one subcategory under psychopathic personality. Since then this term has become increasingly popular. In 1952 it was formally accepted in place of "psychopath" when a new and revised psychiatric nomenclature was introduced (Amer. Psychiat. Assoc., 1952). The description listed under the heading "sociopathic personality disturbance, antisocial reaction" is closely related to Cleckley's conception of the disorder.

The description reads as follows:

This term refers to chronically antisocial individuals who are always in trouble, profiting neither from experience nor punishment, and maintaining no real loyalties to any person, group, or code. They are frequently callous and hedonistic, showing marked emotional immaturity, with lack of sense of responsibility, lack of judgment, and an ability to rationalize their behavior so that it appears warranted, reasonable, and justified.

The term includes cases previously classified as 'constitutional psychopathic personality'. As defined here the term is more limited, as well as more specific in its application.

Changing the term to "sociopath" presumably shifted the emphasis to the fact that the disorder primarily reflects the disturbed relationship of the individual to society.

Cleckley (1964) recorded his clinical impressions of psychopaths and attempted to differentiate them from other disordered individuals. He did this by specifying the clinical features he observed to be present in most of the cases he studied. His criteria of psychopathy are listed as follows:

1. Superficial charm and good intelligence.
2. Absence of delusions and other signs of irrational thinking.

3. Absence of "nervousness" and other 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 from 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.

Unfortunately, Cleckley made few suggestions as to which, if any, of his criteria are essential or specific to the psychopathic syndrome. However he did focus on the psychopath's relative inability to appreciate the deep emotional accompaniments of experience as being of central significance.

Experimentally-oriented researchers, notably Lykken (1957), Hare (1965; 1966), and Schachter & Latané (1964), using Cleckley's conception of psychopathy, focused on the "general poverty in major affective reactions as the basic characteristic of psychopaths". They reasoned that the psychopath's difficulty in conditioning anticipatory fear responses might well be the core of his disability. For if, as they hypothesized, the psychopath is slow to condition fear, a ready and parsimonious explanation of his behavior is at hand.

Lykken (1957) found that psychopaths demonstrated less avoidance

of punished responses than a group of nonpsychopaths on a test of avoidance learning. In other words the psychopaths eliminated the shock-reinforced errors on a mental maze learning task at a slower rate than did the control Ss. As one part of their study, Schachter & Latané (1964) replicated the results found earlier by Lykken using a mental maze.

Hare (1965) demonstrated that psychopaths acquired and generalized a conditioned-fear response significantly more poorly than did a group of nonpsychopathic controls. The Ss' galvanic skin response to an auditory CS paired with shock was the dependent variable. In another study, Hare (1965) found that in psychopaths the temporal gradient of fear arousal was significantly less pronounced than it was in a nonpsychopathic control group. This was measured by GSR activity in response to anticipation of electric shock. His psychopaths were also found to have a significantly lower level of resting skin conductance than did the controls. These data suggested that psychopaths are autonomically hyporesponsive. Other studies, however, using different physiological measures, different subject selection procedures, and different criteria of psychopathy have obtained conflicting results (Hare, 1968).

In testing the hypothesis that psychopaths should select delayed punishment over immediate punishment if forced to make a choice, Hare (1966) obtained additional evidence which supported the view that psychopaths are less disturbed than nonpsychopaths when it comes to anticipating future discomfort. The psychopaths chose the delayed

shock more often. These results were interpreted as supporting the conditioned fear hypothesis (Hare, 1966).

Other investigators (Gurvitz, 1947; Sherman, 1957; and Kingsley, 1960) have presented data suggesting that the psychopath shows no general learning deficit or inferiority of intellectual functioning. Only in avoidance learning studies has the psychopath appeared to have a learning deficit when compared to nonpsychopaths. Cleckley's observation that the psychopath shows no measurable deficit or disorder in thinking or verbal reasoning is generally supported. In fact, the psychopath is very often clinically described as being above average, or even superior, intellectually, and he often appears as a poised, competent, and rationally alert person (MacDonald, 1966; Hankoff, 1961; Bullard, 1941).

McCord & McCord (1964) have presented a clinical account of the psychopath as an extremely asocial, aggressive, impulsive, and poorly controlled person. In contrast to Cleckley, they seem to view the psychopath as being more actively aggressive, rather than passively disinterested and callous. They emphasize the lovelessness and guiltlessness of the psychopath as being his two most important characteristics. The personal charm and verbal fluency of the psychopath are not emphasized, although they admit that some psychopaths have these characteristics in addition to the ones they view as being of central pathognomonic significance.

In selecting SS for their research, Schachter and Latané (1964) simplified earlier views and emphasized the two essential features of

psychopathy to be (1) chronic antisocial behavior, combined with (2) a lack of meaningful or deep emotional feeling or responsivity.

#### Primary and Secondary Psychopathy

Karpman (1941) argued for the need to differentiate two distinct clinical types demonstrating psychopathic behavior. He labelled these "ideopathic" or "primary psychopathy" and "symptomatic" or "secondary psychopathy". His feeling was that the former was constitutional in origin, whereas the latter was more or a developmental neurotic resolution or internal conflict. Earlier Alexander (1930) had presented a psychoanalytic conception of what he called the "neurotic character" which agrees closely with Karpman's idea of secondary psychopathy. According to Alexander's viewpoint, instead of internalizing fear and neurotic inhibitions, the symptomatic psychopath is seen as "acting out" in an attempt to cope with unresolved inner conflict. However, as Cleckley (1964) has insisted, in many psychopaths (Karpman's idiopathic type) there is no discernible underlying conflict which can be clinically demonstrated. Perhaps as Jenkins (1960) has suggested, it may be very difficult for people trained in dynamic psychiatry to accept the idea that problem behavior can stem from a lack of conflict rather than from excessive inner conflict, a rather radical departure from traditional thinking.

Unfortunately, as far as overt behavior is concerned, a primary psychopath and a neurotic psychopath may appear to be much the same. The only justification for differentiation has been largely at the theoretical level where the primary psychopath is said to have little

or no anxiety or guilt. As Hare (1968) suggests, it is evident that differentiation of these two types of psychopathy has often been made only after careful study to determine if any neurotic or motivational features can be found to "explain" the behavior. If such features are found then the individual is not considered to be a true primary psychopath. It is obvious that in any given case such efforts are facilitated or hindered by the completeness of the social history, the reliability of the information obtained about the person, and by the preconceived biases of the investigator. However, attempts at differentiation have been successful in the screening and selection of comparison groups for experimental study, as the results of Hare's, Lykken's and Schachter and Latane's work have shown. For instance, as reviewed earlier, the two groups have been found to differ in learning to avoid punishment.

A Method Developed to Aid in Differentiating Types of Psychopaths and to Differentiate Psychopaths from Nonpsychopaths

As conceptualized by Lykken (1957) the Activity Preference Questionnaire (APQ) was developed to differentiate between psychopathic and nonpsychopathic persons along a dimension of anxiety-reactivity. It was assumed that primary psychopaths would be least subject to anxiety. The items on this questionnaire were rated along a scale of unpleasantness by 1000 student judges and they were then matched and paired according to their mean unpleasantness values to form a forced-choice instrument. Most pairs consist of an anxiety-arousing or provoking (embarrassing, frightening, etc.) item paired



with a tedious (onerous, distasteful, irritating, etc.) but non-anxiety-arousing alternative. It has been demonstrated that this questionnaire succeeded in differentiating between psychopathic and nonpsychopathic Ss selected on the basis of other independent criteria (Lykken, 1957, Schachter & Latané, 1964). Also, factor analysis (Lykken, 1965) subsequently demonstrated that the anxiety items loaded on a common factor of "anxiety-proneness", whereas no common factor loading resulted for the non-anxiety items. It was concluded that "the scattered pattern of onerous endorsement can be interpreted as indicating high anxiety-proneness rather than high frustration tolerance or any other onerous factor" (Lykken, 1965). Reliability estimates using the Kuder-Richardson 20 formula have consistently yielded reliabilities in the high .80s and low .90s (Lykken, 1965). Consequently this instrument appears to be a useful tool in the differentiation of psychopaths and nonpsychopaths.

#### Antisocial and Dyssocial Psychopaths

Another distinction is often made between the antisocial and the dyssocial varieties of psychopathy. As quoted previously, the antisocial reaction seems to come closest to describing the behavior documented by Cleckley (1964). In contrast "dyssocial" behavior is viewed as being a result of the individuals so classified "having lived all their lives in an abnormal moral environment" (Amer. Psychiat. Assoc., 1952). Thus the dyssocial person is said to be a "socialized delinquent" adhering to the learned social code of his respective subculture. However, in practice, a distinction is probably difficult

to make between antisocial and dyssocial personality, since at the behavioral level individuals of both types may appear to be much the same. Underlying characteristics such as the presence or absence of guilt and anxiety provide the key distinguishing differences. For example, the antisocial personality is described as being far less capable of experiencing guilt and anxiety, of feeling interpersonal loyalty, and of having "good" or understandable motivation for his conduct. However, these personality characteristics are difficult to assess without making a clinical judgment. Such judgments are likely to be a step removed from the observable behavior and consequently open to errors in interpretation.

A recent effort to obtain needed empirical data to support a subcategorization of psychopathy was made by Pappas (1968). He argued for the valid differentiation of three types of criminals. These he labelled "neurotic", "dyssocial", and "primary" sociopaths. He proposed that his conceptualized dimension of psychopathy paralleled a dimension of emotional-responsivity or anxiety-proneness. The neurotic sociopath was viewed as being at one extreme (high anxiety), the primary sociopath at the other extreme (low anxiety), and the dyssocial sociopath was seen as falling somewhere in the middle of the continuum (average or normal anxiety). He predicted that his groups would differ in showing differential susceptibility to anxiety-evoking stimuli. The predicted result was not found as his groups did not differ in their performance on a simple perceptual-motor task under stress. But it was unclear whether this was a fair test of his

experimental hypothesis since his results could have been influenced by his particular subject selection procedure, the technique he used to test his conception, or by both of these factors. More data was clearly called for to evaluate empirically his proposed subcategorization of psychopathy and to determine what if any value it might have for differential treatment and prognosis.

#### Predictions of the Present Study

It was predicted that psychopaths would select significantly more of the anxiety tasks in a behavioral forced-choice situation than would nonpsychopaths. The rationale behind this prediction was that the psychopaths were assumed to be less anxious than the nonpsychopaths.

Since it was assumed that psychopaths are more impulsive than nonpsychopaths, it was predicted that the psychopaths' choice reaction time (RT) would be significantly less than the RT of the nonpsychopaths. This prediction was suggested by frequent references in the literature to psychopaths' tendency to act before they give full consideration to the consequences of their actions.

Several other measures of anxiety were taken for purposes of comparison with previous research. It was felt that if the psychopaths also obtained significantly lower anxiety scores on these additional measures stronger conclusions could be drawn and the generalizability of positive findings in the choice behavior experiment would be greater. Specifically, it was predicted that: (1) the psychopaths would select delayed shock more frequently than the nonpsychopaths in a replication of Hare's (1966) immediate vs.

delayed shock choice experiment, and (2) that the psychopaths would obtain significantly lower anxiety scores than the nonpsychopaths on several paper-and-pencil measures of anxiety such as the Activity Preference Questionnaire, the Taylor Manifest Anxiety Scale, the A-Factor Scale, and the Pt scale of the MMPI.

### Method

Fifty inmates at Pendleton State Reformatory in Pendleton, Indiana were selected as Ss for this study. Twenty-five inmates were chosen for each of two groups, a psychopathic (P) group and a nonpsychopathic (NP) group.

The ages and Revised Army Beta IQs of the Ss were obtained from their records. This information was not available for five Ss in group NP and for one S in group P. Consequently, the mean ages and mean IQs of only 24 of the Ps and 20 of the NPs were compared to determine if any group differences existed. The mean age of the Ps was 23.79 and their mean IQ was 100.29, whereas the mean age of the NPs was 25.1 and their mean IQ was 104.58. The two groups were found to differ neither in age ( $t=1.06$ ,  $df=42$ , NS), nor in IQ ( $t=1.48$ ,  $df=42$ , NS). Eight of the Ps (32%) and seven of the NPs (28%) were Negro.

#### Subject Selection Procedure

The 50 Ss used in this study were selected using a series of successive screening procedures which will be described below. These procedures included (1) original nominations, (2) a reevaluation of the original nominees, and (3) diagnosis of the nominees.

#### Original Nominations

In connection with a previous investigation<sup>1</sup> 14 reformatory employees

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1. This study was carried out by Akio Ohmori as part of a graduate psychology course requirement at Indiana University.

(counselors, guards, and teachers) had nominated inmates to a psychopathic and a nonpsychopathic group. Each of these employees was acquainted with many inmates at the reformatory. The nominations were based on a check list of characteristics corresponding closely to Cleckley's (1964) criteria of psychopathy. This check list is shown in Appendix A. The nominators had been requested to name (1) inmates who had most or all of these characteristics and (2) inmates who possessed few or none of the characteristics. At no time was the term "psychopath" used in connection with this nomination procedure.

This original nomination procedure resulted in the nomination of over 200 inmates, of whom 104 were named only to group P and 106 only to group NP<sup>2</sup>.

#### Reevaluation of Original Nominees

This reevaluation was undertaken several months after the original nomination procedure. At the time 40 of the inmates originally nominated were no longer at the reformatory. The purpose of this procedure was: (1) to obtain data on the internal consistency or intra-nominator agreement of the nominators, (2) to get some estimate of inter-nominator agreement on the nominees, and (3) to obtain information concerning the presence or absence of each of the check list characteristics for each of the original nominees.

Each nominator was first shown the entire list of original nominees and was asked to place each name in one of four categories.

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2. Only eight inmates were nominated to both groups.

These four categories included (1) P=feel inmate possesses most or all of the check list characteristics, (2) NP=feel inmate possesses few or none of the listed attributes, (3) N=know inmate but do not feel he belongs in either of the first two categories, and (4) DK=do not know inmate. After the completion of this task each nominator was given a list consisting of the names he had originally contributed. His task was to indicate which of the characteristics on the check list he felt were descriptive of each of these inmates. Details of the instructions given to the nominators and the important results concerning intra-nominator agreement, inter-nominator agreement, and the check list characteristics results are presented in Appendices B, C, D, and E respectively.

Using the results of this reevaluation a pool of 70 potential psychopathic and nonpsychopathic Ss was drawn by selecting inmates who were reassigned to the same category by the original nominators, and who, in addition, were placed in that same category by several other nominators.

#### Diagnosis of Nominees

This was the final step of the selection process. The reformitory records of the pool of 70 potential Ss were reviewed by E who was unaware of the group membership of these inmates. In each case E made an independent diagnosis of the presence or absence of psychopathy based upon (1) data related to institutional adjustment, (2) data related to adjustment prior to incarceration, (3) information in the record concerning the inmate's capability to form meaningful

interpersonal relationships and to experience emotional attachments and (4) evidence of recognizable or understandable motivation for antisocial acts. Unfortunately, information necessary to estimate motivation and emotional attachments was often not reported. In general, inmates whose records reported more evidence of chronic behavioral maladjustment both inside and outside the reformatory were diagnosed as psychopaths. Inmates whose records indicated comparatively less evidence of such difficulties were called nonpsychopathic. Potential Ss were not necessarily disqualified from consideration if E's diagnosis did not agree with the inmate's group membership based upon the nominations.<sup>3</sup> This was especially the case when the previous nomination data was consistent and decidedly in the other direction. Consequently there were Ss selected for the study on the basis of the nomination data alone. Diagnosis by E was thus not a necessary requirement for selection.

#### Summary of Subject Selection Procedure

On the basis of the steps described above the 50 Ss best qualified for the two groups were selected for the study. Since the cooperation of a few of these Ss could not be obtained and since a few of these Ss were in solitary lockup and unavailable for participation in the study, the next best qualified Ss available were substituted in the final selection. A presentation of the important selection data

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3. An overall agreement of 73% was found between E's diagnosis and the group assignment of the 70 potential Ss whose records were reviewed.



and check list characteristics of these 50 ss is shown in Appendices F and G.

#### Task Selection Procedure

The purpose of this procedure was to pair anxiety-arousing tasks with tasks arousing no anxiety, the tasks having been matched according to degree of unpleasantness. The steps carried out in obtaining this end result were: (1) preselecting a list of tasks intuitively felt to be unpleasant because they either evoked anxiety or were otherwise distasteful, (2) obtaining independent ratings concerning the reason these tasks were unpleasant, and (3) obtaining ratings of the degree of unpleasantness of these tasks. Both psychologists and inmate raters participated in steps two and three of this procedure.

#### Preselection of Tasks

First, a preliminary list of 52 unpleasant tasks was created. An attempt was made to include tasks which could be performed in an experimental situation. Tasks were included which were felt to be unpleasant because they elicited either physical or social anxiety or because they were onerous or tedious.

#### Determination of the Reason Why the Tasks were Unpleasant

Fourteen psychologists<sup>4</sup> and 13 new inmates at the reformatory were asked to place each of the 52 preselected tasks in one of five different descriptive categories. The tasks were placed in one of

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4. Ten of these 14 raters were clinical psychology interns. The four remaining raters were professional clinical psychologists.

of the following categories: (1) physical anxiety, (2) social anxiety, (3) tedious, (4) onerous, or (5) unpleasant because of a combination of the above reasons. The instructions given to the raters and a list of the 52 tasks is shown in Appendix H. For the inmate raters these instructions were simplified and read aloud by E with examples being given of tasks fitting each of the categories. Tasks were considered for final selection and use in the experiment for which there was consistent agreement concerning the reason the task was unpleasant. Agreement was good concerning which tasks aroused anxiety and which tasks did not. However, there was some disagreement within these categories. For instance, the inmate raters especially disagreed among themselves concerning whether particular non-anxiety-arousing tasks were tedious or onerous.

#### Determination of the Degree of Unpleasantness of the Tasks

In order to pair anxiety tasks with tedious or onerous tasks, matched for degree of unpleasantness, ratings were obtained from ten clinical psychology interns and from 100 unselected inmates enrolled in the educational program at the reformatory.

All raters were instructed to rate the 52 unpleasant tasks and an additional 25 pleasant tasks along a nine-point Thurstone rating scale. This scale ranged from a rating of one (extremely pleasant) through five (task is neither pleasant nor unpleasant) to a rating of nine (extremely unpleasant). The rating instructions were simplified and read aloud to the inmate raters. Examples were given and some of the tasks were visually demonstrated to the inmates. Instead of assigning numbers to the tasks, the inmates merely had to check along

a line scale divided into sections numbered from one to nine as each task was read aloud to them, to indicate how pleasant or unpleasant they felt each task to be.

The results of the ratings of the psychologists and the inmates indicated good agreement. A measure of the inter-relationship between the psychologists' and the inmates' ratings of degree of unpleasantness for the unpleasant tasks was computed using the product-moment correlation coefficient. A correlation of .773 was obtained ( $df=50$ ,  $p < .01$ ).

#### Final Selection and Pairing of Tasks

The inmates' ratings of degree of unpleasantness were used to match anxiety and non-anxiety tasks as closely as possible. Six pairs of tasks which seemed practical to arrange and set up in an experimental situation were then selected for use in the experiment.<sup>5</sup> A description of these tasks is presented in Appendix J. In each case, except one, a social or physical anxiety task was matched with a tedious task or onerous task. The remaining task pair consisted of a tedious task matched with an onerous task.

#### Procedure

The experiment was carried out in a spacious well-lighted room within the walls of the reformatory. Two inmate clerks assisted E in contacting Ss, obtaining their cooperation, scheduling appointments, and in helping E in all parts of the procedure which required assistants.

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5. A preliminary pilot study provided supportive evidence that the tasks were evenly matched and that the instructions to be read to the Ss were clear and understandable.

Upon entering the experimental room, S was seated and read the following instructions:

You'll get two packs of cigarettes for being in this experiment. I'll give them to you as soon as we're finished. I'm interested in finding out how people make difficult decisions. I am going to give you several choices. In each case you must decide which of two things you want to do. For instance, say you have a choice between getting a pack of cigarettes and a quarter. If you could have one, but not both, which would you take? OK- now I'll give you two unpleasant things to choose between. From now on, what you choose to do you must really do. Do you understand? Remember, I'm going to have you really do what you pick. You must pick one of them. Pick the lesser of two evils as far as you are concerned. Any questions? OK- no more questions. Here's the first pair of things you have to choose between. Say "I'm ready" as soon as you've made up your mind. Listen carefully...

The first two tasks were then read aloud to S as E said, "Either you have to ... or you have to ...". Using a stop watch E recorded the time it took S to make each choice.

After S had performed the task chosen, the next task pair was introduced by E saying, "OK- here are two more unpleasant tasks you have to choose between". Each S was given the six pairs of tasks in a different random order.

When S had selected and performed the sixth and final task he was taken over to the shock apparatus and he was read these additional instructions<sup>6</sup>:

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6. The shock apparatus, procedure, and instructions used in this part of the study were similar in all important respects to those described by Hare (1966).

OK- now I want to find out how much shock you are willing to accept.<sup>7</sup> (E then determined how much shock S was willing to accept by turning the shock up one step at a time. After S indicated that he wished it turned no higher, he was further instructed): OK- now place your free hand in front of the two keys you see in front of you and midway between them. Your task is simply to press one of the keys whenever you see this light come on (E demonstrated the pilot light situated on the panel which separated S from E). Depending on which key you press you will receive either an immediate shock or the same shock after a ten second delay. (Cards had been placed behind each key informing S which key stood for each of these two choices). The shock will be no higher than that which you told me was your limit. OK- now press the key which says "immediate shock" and I'll show you what that means. OK- now press the key marked "shock delayed for ten seconds" and I'll show you what that means. OK- here we go. Remember whenever you see the light come on press one of the two keys. The choice is up to you.

In keeping with Hare (1966), six free-choice trials were then given with about a 30-second intertrial interval. The effects of possible position preferences were controlled by having the immediate shock associated with the left key for one-half of the Ss and with the right key for the remaining Ss.

After S had made his six choices he was asked several questions concerning his impressions of the experiment, and whether he would be willing to complete two paper-and-pencil questionnaires at a later date. He was then given his cigarettes and dismissed.

Approximately two weeks after the completion of the experimental study, E's assistants sent out requests for the Ss to return to complete

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7. No differences were found between groups in the intensity of shock the Ss selected as their limit. These results were in agreement with Hare's, who also found no difference between his groups in the intensity of shock the Ss were willing to accept.

the APQ and the MMPI. Half of the Ss were called for each of two group administrations.<sup>8</sup>

All Ss completed the APQ first and then they were given the MMPI. Lykken's APQ is shown in Appendix K. No time limits were imposed. During these sessions assistance in answering questions and clarifying the written instructions was provided by E's two assistants.

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8. Of the 50 Ss only 18 of the Ps and 18 of the NPs returned to participate. The remaining Ss either did not wish to cooperate, or they were otherwise unavailable because they were in solitary lockup or had been paroled during the time interval between the experiment and the later testing.

## Results

### Task Choice Experiment

It was predicted that Group P would select more anxiety tasks than Group NP. The mean number of anxiety tasks chosen by Group P was 2.84, with a variance of 1.73 and a range of from one to five anxiety tasks selected. For Group NP the mean was 2.52, the variance 1.61 and the range from zero to five. The means of the two groups were not found to differ significantly ( $t = .857$ ,  $df = 48$ ).

On four of the five pairs of tasks containing an anxiety task, more Ss in Group P than in Group NP chose the anxiety task. The proportion of Ss in the two groups choosing each anxiety task was compared using Chi Square tests. None of the differences in proportions was found to be significant at the .05 level. The results showing the number of Ss in each group selecting each of the five anxiety tasks is shown in Table 1.

### Choice Reaction Time

The prediction was made that the psychopaths would have a lower choice reaction time than the nonpsychopaths. The mean total reaction time of Group P was 44.4 seconds and the mean of Group NP was 47.6. These means were not found to be significantly different ( $t = .336$ ,  $df = 48$ ).

### Comparison of Groups on Additional Anxiety Measures

It was predicted, as Hare (1966) had demonstrated, that the psychopaths would choose delayed shock more frequently than the

Table I

Number of Ss in Groups P and NP selecting  
each of the anxiety tasks

Number of Anxiety Tasks Selected					
	<u>Pendulum</u>	<u>Loaded</u>	<u>Cigarette</u>	<u>Board Shock</u> <u>Walk</u> <u>Another</u>	<u>Reading</u> <u>Sentences</u>
P	20		14	14	9
Group					
NP	17		11	13	4
Totals	37		25	27	13



nonpsychopaths in a forced choice situation. It was found that only 13 of the total of 50 Ss selected the delayed shock one or more times out of six trials. Of those Ss selecting delayed shock 10 were in Group P and three were in Group NP. Thus, 40% of the Ps chose delayed shock at least once as compared to 12% of the NPs. The proportion of Ss in each group selecting delayed shock was compared using a Chi Square test and the groups were not found to differ significantly ( $\chi^2 = 3.74$ ,  $df = 1$ ). Although not significant the results were in the expected direction. Only six Ss chose the delayed shock on more than one trial. All of these Ss were in Group P.

The mean scores of Group P and Group NP were not found to differ significantly on any of the other anxiety questionnaire measures. The means of the two groups are presented for inspection in Table 2.<sup>9</sup>

In order to determine the relationship between the Ss' choice behavior during the experiment and their questionnaire responses, Goodman and Kruskal's gamma statistic was computed as a measure of association. This statistic is described by Hays (1963) as a measure of association in ordered classes and it has a simple probabilistic interpretation. These statistics are reported in Table 3. None of these indices of association was found to be significant. Taken together, the negative coefficients indicate only a minimal, nonsignificant tendency for high

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9. Since only 36 of the original 50 Ss participated in this testing the results found between the two groups should be interpreted cautiously. In particular the measures of association between the Ss' choice behavior and the questionnaire scores may have been different if all Ss had participated in the paper-and-pencil testing.

Table 2

Means of Groups P and NP on the APQ, the TMAS,  
A-Factor, and Pt Scales

	<u>Group P Mean</u>	<u>Group NP Mean</u>
APQ <sup>1</sup>	29.5	30.4
TMAS <sup>2</sup>	14.6	15.9
A-Factor	14.3	13.1
Pt Scale	14.9	13.1

1. N=18 for both groups.

2. N=12 for Group P and N=16 for Group NP for the TMAS,  
A-Factor, and Pt scales from the MMPI.

Table 3

Gamma Statistics Showing the Relation Between  
Ss' Behavior in the Task Choice Situation  
 and their Scores on the Questionnaires

APQ Scores <sup>1</sup> vs <u>Choice Scores</u>	TMAS Scores <sup>2</sup> vs <u>Choice Scores</u>	A-Factor Scores vs <u>Choice Scores</u>	Pt Scores vs <u>Choice Scores</u>
-.18	-.09	-.34	-.23

1. Total N=36 for APQ.

2. Total N=28 for TMAS, A-Factor, and Pt Scales.

scores on the anxiety scales to be related to a low number of anxiety task selections during the experiment. These coefficients were, however, in the expected direction in each case.

#### Task Choices of Reconstituted Groups

The subject selection procedure placed most emphasis on the original nominations and the reevaluation of the nominees by reformatory personnel untrained in the area of clinical psychology or psychiatry. However, the independent diagnoses based on the Ss' reformatory records were made by E, who had training in clinical psychology. It was therefore decided to make additional comparisons between the groups, reconstituted ad hoc, which placed greater emphasis on E's diagnoses of the Ss. This was done because it was assumed that E's diagnoses might result in a more valid differentiation of psychopaths and nonpsychopaths.

First, an additional ad hoc comparison was made between the two groups, including only those Ss in groups P and NP who had qualified for their respective groups both by: (1) the nomination procedure, and (2) by diagnosis. As a result six Ss were eliminated from the original P group (those Ps who had been diagnosed as NP) and 10 Ss were eliminated from Group NP (four NPs who were diagnosed as Ps and six NPs for whom no diagnosis was made). These reconstituted groups thus contained 19 Ps and 15 NPs. For these new groups the mean number of anxiety tasks selected was 2.95 for Group P and 2.20 for Group NP. These means were not found to be statistically significant ( $t=1.68$ ,  $df=32$ ).

Next, another ad hoc comparison was carried out, including in Group P only those Ss diagnosed as "psychopathic" by E, and including in Group NP only those Ss for whom a "nonpsychopathic" diagnosis was made. In these reconstituted groups, six NPs (E's diagnosis) were switched from Group P to Group NP, four Ps (E's diagnosis) were changed from Group NP to Group P, and the six Ss in Group NP for whom no diagnosis was made were eliminated from consideration. These reconstituted groups consisted of 23 Ps and 21 NPs. The mean number of anxiety tasks chosen by these new groups was 3.09 for Group P and 2.29 for Group NP. These means were found to be significantly different ( $t = 2.09$ ,  $df = 42$ ,  $p = .05$ ). Therefore, reconstituting the groups on the basis of diagnosis alone the predicted result was obtained. These "psychopaths" selected significantly more of the anxiety tasks than did these "non-psychopaths". Caution must be exercised in interpreting this difference because the groups were reconstituted ad hoc. Caution is further indicated by the fact that additional comparisons between these new groups in the immediate vs. delayed shock situation and on the anxiety questionnaires were not found to be significant.

### Discussion

In this study two groups, nominated by reformatory personnel on the basis of the presence or absence of specified psychopathic characteristics, were not found to differ in their anxiety choice behavior or on several additional measures of anxiety. Inmates scoring high and low on the various measures were found in both groups. It had been predicted, primarily on the basis of Cleckley's clinical observations and on the results of several previous experimental studies, that psychopathic criminals would not find anxiety-laden tasks to be as unpleasant as would a group of nonpsychopathic controls. The predictions were not upheld. However, before one accepts the conclusion that this study presents evidence against the notion that psychopaths are less anxious than nonpsychopaths, several aspects of the study must be carefully examined.

#### Selection of Psychopaths and Nonpsychopaths

It could be argued that the subject selection procedure used in this study was inadequate in that it did not result in a clear-cut, valid differentiation between psychopathic and nonpsychopathic offenders. Earlier investigators found significant differences between psychopaths and nonpsychopaths on the APQ and in the choice of immediate vs. delayed shock (Lykken, 1957; Schachter & Latané, 1964; Hare, 1966). Such differences were not found in this study. These findings suggest that the selection procedures may not have been comparable.

In defense of the selection procedure used in this study, it is noteworthy that both intranominator and internominator agreement were

acceptable. In general, Ss originally placed in one group were placed in the same group during the reevaluation by the original nominator. Also different nominators did appear to agree, overall, in their assignment of the Ss to the two groups. In addition, it was evident that psychopathic nominees were viewed as having many more of the check list characteristics than did the nonpsychopathic nominees. It can be concluded that, overall, P nominees were inmates who impressed the nominators as being behaviorally maladjusted in many ways. This was not true of the NP nominees. They were seen as being much better adjusted within the reformatory environment.

However, one can argue that the presence of additional more subtle characteristics may be necessary to differentiate individuals with true, classical, psychopathic disorder from those with related severe antisocial reactions. Such traits may not have been properly emphasized on the check list, or taken into account by the nominators. Moreover, psychopathic characteristics such as extreme callousness, emotional indifference, lack of sense of guilt, and absence of understandable purpose or motivation for antisocial acts may be very difficult to infer and rate. Professional clinical psychologists and psychiatrists may be needed to assess the presence or absence of such characteristics accurately. In the present study the nominators were untrained observers and, according to comments made by some of them, they were dealing with the "good guys" versus the "bad guys" in the reformatory. Thus it appeared that some of the nominators nominated institutional troublemakers to Group P and institutional conformists to Group NP. There is a question whether such nominations should be

considered a good procedure to use in the differentiation of psychopaths and nonpsychopaths.

Taking only E's diagnosis into account in the assignment of Ss to groups, the predicted results were obtained in the task choice experiment. However, as noted earlier, these ad hoc groups did not differ on the other anxiety measures, thus limiting the conclusions that could be drawn from these additional results. In this, however, there was found some support for the idea that trained, clinical observers may be better able to select and differentiate psychopaths from nonpsychopaths in a reformatory population. The degree to which professional nominators would improve the selection would undoubtedly depend on how well these trained observers knew the potential Ss involved and how complete the records on these Ss were.

Previous studies (Schachter & Latané, 1964; Hare, 1966; and Hare, 1968) reporting significant results between psychopaths and nonpsychopaths on anxiety-related measures, did require the nominations of their Ss to be made by professionals, such as clinical psychologists and prison psychiatrists. Consequently, the difference in the selection procedures used may have had some bearing on the different results obtained in the present study.

Also, perhaps this study was in error in not attempting to define the positive characteristics of nonpsychopaths in a more precise way. Previous investigators, for example Lykken (1957), made a special attempt to select a "neurotic" or "anxious" control group against which to contrast the behavior of their "primary" psychopaths. This study,



**CONTINUED**

**1 OF 2**

in defining Group NP by a process of exclusion, probably did not optimize the chances of selecting extreme groups. Rather, the groups actually selected can be described as differing only in degree on the characteristics listed on the check list. Additional evidence for the questionable make-up of Group NP was the poor inter-nominator agreement for the NP nominees (56%) in comparison with that of the Group P nominees (85%).

This study also suffered from the handicap of having many of the original Group P and NP nominees no longer available for use. This was due to the lengthy lapse of time between the original nominations and the actual execution of this study. About one-fifth of the original nominees had been either transferred, discharged, or paroled during this time. A disproportionate number of these original nominees were members of the nonpsychopathic group and had been paroled. As a result, it was difficult to find enough qualified NP nominees for the study.

However, despite these criticisms, it was evident that a sample of Ss demonstrating marked and severe antisocial behavior and attitudes did not significantly differ from a sample of Ss not so blatantly maladjusted, on the various measures of anxiety reactivity used in this study.

#### Measurement of Anxiety Reactivity

Another point to be examined is the extent to which the measures of anxiety used in this study can be considered valid indices of the underlying construct they purport to measure. It appeared from the task selection data that the paired tasks did differ in their capacity

to arouse anxiety, while being similar in their degree of unpleasantness. But the question can be raised as to whether the paired tasks differed consistently on any other dimensions. The anxiety-arousing tasks by and large took less time to perform than the non-anxiety-laden tasks. Some Ss indicated that they selected some tasks primarily because it would take less time to perform them. Also, some of the Ss stated that they looked upon the anxiety tasks as more challenging, whereas they viewed the non-anxiety tasks as being more humiliating and degrading. How much such additional factors entered into the Ss' decision making is unknown. In general, however, the tasks used in this study were felt to represent a sample of behavioral tasks differing primarily on an anxiety dimension.

The replication of Hare's (1966) study of delayed vs. immediate shock was done in order to obtain an additional measure of anxiety reactivity and to determine if the Ss selected for this study were comparable to his psychopaths and nonpsychopaths. Hare's psychopaths chose the delayed shock 44.5% of the time, whereas his nonpsychopaths chose it only 12.7% of the time. In general, all Ss selected for this study chose the immediate shock much more frequently. The Ss in Group P chose the delayed shock only 14.7% of the time and the Ss in Group NP chose it only 2% of the time. Thus it appeared that the Ss selected for this study differed markedly from Hare's Ss in their preference for immediate shock. Although this study obtained results in the expected direction, in that more psychopaths chose delayed shock, it was not evident that the psychopaths as a group were unconcerned over waiting for the shock. No Ss made comments like those

reported by Hare's subjects to the effect that "waiting for the occurrence of delayed shock bothered them very little". On the contrary, many Ss in both groups commented that they desired to "get it over with as quickly as possible." Thus it appeared that within the sample of Ss selected for this study only a small minority behaved in a way suggestive of faulty fear conditionability or minimal anxiety reactivity. Two of the most extreme cases of "psychopathic personality", judged on the basis of both nominations and diagnosis, showed obvious fear and marked apprehension over receiving the electric shocks. These results seem to cast some doubt on the theory that low anxiety or lack of fear is the basis for many severe cases of "psychopathic behavior." Although some chronic offenders may be emotionally callous or indifferent to fear, this did not appear to hold true in the majority of such behavior disorders.

It was also of interest that the two groups did not differ either on Lykken's APQ nor on three additional paper-and-pencil measures of anxiety. High and low scores on all these scales were found in both groups. Some may argue that the TMAS, and perhaps the other MMPI measures, are not very good measures of anxiety. Assuming this to be true, it is not too surprising that the two groups did not differ on these measures. However, it is interesting that the APQ did not succeed in differentiating the groups as it has in previous studies (Lykken, 1957; Schachter & Latané, 1964). Since the APQ was also not found to be related significantly to the behavioral task choices of the Ss, this study casts some doubt on its construct validity as a measure of anxiety reactivity. More research is certainly called for

to evaluate further the usefulness and validity of this instrument.

#### Toward a Conception of Psychopathy

There currently appear to be two different views concerning which individuals should be labelled psychopathic (or sociopathic) and which individuals should not. One group of observers, including Cleckley and researchers influenced by his ideas, limit the use of the label to cases demonstrating, not only repeated disregard for social conventions and the rules of fair play, but also a pervasive emotional callousness and indifference to the feelings and needs of others. The other group, exemplified by Robins (1966), apply the label much more broadly, the diagnosis being less specific in its application. The basic difference seems to be that the "Cleckley psychopath" is described as lacking in emotional depth, being unmoved by the feelings which motivate other people. Only individuals having this characteristic to a marked and recognizable degree are viewed by the Cleckley group as being true psychopaths in the classical sense. The other criteria of psychopathy are relegated to secondary importance. In fact many researchers in this group have used the trait of emotional hyporeactivity, reinterpreted more narrowly as a lack of anxiety, as an "explanation" for the other common psychopathic characteristics observed by clinicians.

Instead of focusing only on the hypothesis that the psychopath's behavior is a result of an absence of anxiety, it would perhaps be more beneficial to look at the effect the psychopath's behavior has on his immediate environment. Perhaps the oft-cited psychopathic traits, such as irresponsibility, deceitfulness, and manipulation,

are not the result of low anxiety, but are instead tools used either to reduce or avoid immediate anxiety or to obtain immediate positive reinforcements. The psychopath's use of psychological defense mechanisms such as denial, rationalization, and projection may serve similar functions. In the extreme, classical cases of psychopathic personality perhaps such behaviors may have developed into highly successful, habitual, and self-perpetuating ways of pathological adaptation. Such individuals, with reinforced experience, come to develop confidence in their ability to reduce immediate anxiety and/or obtain immediate gratification. Such behavior may pay off repeatedly, and be overlearned, so that in time the individual may appear to be anxiety deficient. These psychopathic "coping strategies" could be expected to be resistant to change in proportion to the extent that they have been reinforced during the individual's life history. In the case of other chronic antisocial individuals, who appear more anxious and uncomfortable, it can be hypothesized that their "coping strategies" are either losing their effectiveness or they have not been as well-learned as in the "classical" cases.

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## Appendix A

## Selection Check List

1. Do not include in either group anyone who is of much below average intelligence.
2. Do not include in group A:
  - a) anyone who is obviously mentally ill, that is, who has delusions or gives evidence that he hears or sees things that others do not.
  - b) anyone who is either very nervous much of the time, or who has strong irrational fears, or who worries a great deal, or who is depressed much of the time.

Nominate people for Group A who have most of the following characteristics.

Nominate people for group B who have none or very few of these characteristics.

1. Superficial charm.
2. Poor judgment and failure to learn by experience.
3. Unable to appreciate how others feel about him or his actions.
4. Lack of remorse or shame.
5. Self-centered and incapable of love or affection.
6. Lack of strong emotional reactions.
7. Unreliable.
8. Untruthful and insincere.
9. Antisocial actions committed for small stakes and under great risks of being discovered.
10. Does not respond to consideration, kindness, or trust.
11. Engages in malicious pranks.
12. Sex life impersonal, casual, and nonselective.
13. Failure to follow any life plan.

## Appendix B

### Instructions for the Reevaluation of Nominees.

Another study is being planned using the inmates nominated several months ago to Group A and Group B on the basis of a selection check list of personality characteristics. These instructions concern a refinement of the original rating procedure. You will remember that inmates were to be nominated for Group A if they possessed most or all of the characteristics. Inmates were to be nominated for Group B if they possessed few or none of the list characteristics. A list of these characteristics is included to remind you what they were.

Part 1 Attached to those instructions is a list of all inmates nominated to both groups A and B. Only a few of these inmates were originally nominated by you. I would like you to look at each name on the list and after each name place one of the following classification marks:

A means whether or not you originally nominated this person to Group A you feel he does qualify for Group A.

B means whether or not you originally nominated this person to Group B you feel he does qualify for Group B.

(Thus your As and Bs will include persons you originally nominated and new additional names which you did not think of or which you have gotten to know since the original nominations were taken.)

N (or neither) means you know the inmate but you feel he does not qualify for either Group A or Group B.

DK (or don't know) means you do not know the inmate.

## Appendix B (continued)

Part II I would now like you to place the name of each inmate you originally nominated at the top of a copy of the selection check list. Now circle the number of each descriptive statement you feel is characteristic of the inmate being considered. Next, will you underline the three characteristics which you feel are most descriptive of each Group A nominee considered and the three least descriptive of each Group B nominee considered.

Only through your cooperation can this study be a success. The validity of the results will depend upon the differential selection of inmates meeting the criteria for Groups A and B. Also, the information you give us at this time will help us to better clarify the individual characteristics of each of the original nominees.

Thank you.

## Appendix C

## Results of Intranominator Agreement Study

If an inmate was placed in the same category a second time by the nominator who had originally nominated him, when his name was reconsidered, this was counted as an agreement. If an inmate was assigned to any of the other three categories during the reevaluation, this was counted as a disagreement.

Overall, intranominator agreement of inmates originally nominated to Group P was 78%. The agreement of inmates originally placed in Group NP was 75%. Overall intranominator agreement of all nominees was 76%.

The intranominator agreement of the individual nominators ranged from 50% to 100%. Serious disagreements, that is, nominator switches from P to NP and from NP to P totaled to only 9%. Other intranominator disagreements consisted of switches from P and NP to the "don't know" or the "do not feel he belongs in either group" categories.

The intranominator agreement figures obtained were felt to indicate acceptable internal consistency, especially since the reevaluation of the nominees took place several months after the original nominations. This conclusion is also supported by the fact that the nominators were given more than the two original categories to use during reevaluation, and they were not reminded which inmates on the overall list they themselves had previously nominated during Part I of the reevaluation procedure.

## Appendix D

## Results of Internominator Agreement Study

Given that an inmate was nominated to Group P or Group NP, what proportion of the 14 nominators who knew him placed him in the group to which he was originally nominated. This was determined by dividing the total number of nominators placing the inmates in their original groups by the total number who indicated that they know them well enough to categorize them as P, NP, or "neither" during the reevaluation procedure. For example, if only three of 14 nominators indicated they knew an inmate and if two of these called him P (the group to which he had originally been nominated), then the agreement would be 67%.

Using this procedure the combined overall internominator agreement for all original Ps was 85%, whereas the agreement for all original NPs was only 56%. All nominees included (except those originally nominated to both groups), the internominator agreement was 72%.

These results suggested that agreement was good across nominators as to which inmates should be called Ps. However, there was marked disagreement among the nominators as to which inmates should be called NPs. Apparently the nominators were better able to agree on the group placement of inmates whom they felt met the check list criteria than they were at agreeing in inmates demonstrating, in their opinion, an absence of the listed characteristics.

## Appendix E

## Check List Characteristics of the Entire Sample

Of the original nominees, 101 of the Ps and 101 of the NPs were rated as to the presence or absence of each check list characteristic. In this part of the procedure (Part II of the reevaluation) each nominator rated only those inmates whose names he had originally contributed to the list.

The results were consistent in showing that the P nominees were rated as having more the psychopathic characteristics (1 to 13 on the Selection Check List, Appendix A) than were the NP nominees. The number of each of the nominees in each of the original groups rated as having each of the characteristics (1 to 13 in Appendix A) is listed below.

<u>Characteristic Number</u>	<u>No. of P Nominees having Characteristic</u>	<u>No. of NP Nominees having Characteristic</u>
1	44	18
2	86	17
3	50	5
4	66	9
5	42	3
6	26	12
7	78	9
8	61	7
9	64	14
10	42	2
11	33	4
12	27	4
13	78	43

## Appendix F

Summary of Selection Procedure Results for the 50 Ss used in Study

Intranominator Agreement The 25 Ss in Group P received an original total of 42 nominations, since many were nominated by more than one nominator. During the reevaluation 86% of the nominations were once again to Group P.

The 25 Ss in Group NP received an original total of 33 nominations. When their names were reconsidered 94% of the new nominations were once again to Group NP.

Internominator Agreement The 25 Ss in Group received a total of 150 nominations by all 14 nominators who indicated they knew the S by placing him in either the P, NP, or N categories. Of this total 137 or 91% were in agreement in placing these Ss in Group P.

The 25 Ss in Group NP received a total of 109 nominations by all 14 nominators during the reevaluation. Of this total 90 or 82% were in agreement in placing these Ss in Group NP.

Diagnosis The records of all the Ss in Group P were reviewed by E and an independent diagnosis was made on this basis. At that time the E was unaware of the potential Ss group membership. A diagnosis of P was made for 19 of these 25 Ss.

Only 19 of 25 records of the NPs were reviewed by E. An independent diagnosis of NP was made by E for 15 of these 19 Ss.



## Appendix G

## Selection Check List Characteristics of the 50 Ss Used in the Study

<u>Characteristic No.<sup>1</sup></u>	<u>No. of Ss in Group P<sup>2</sup> having Characteristics</u>	<u>No. of Ss in Group NP<sup>3</sup> having Characteristics</u>
1	15	5
2	21	4
3	19	1
4	19	1
5	13	1
6	9	0
7	22	0
8	20	0
9	17	2
10	14	0
11	8	0
12	6	2
13	18	11

1. Numbers correspond to characteristics 1-13 in Appendix A.
2. Total N= 25.
3. Total N= 25.

## Appendix H

## Rating Instructions and List of 52 Unpleasant Tasks Rated

All of the tasks listed in the accompanying pages are felt to be unpleasant to some degree because they are either anxiety-arousing, tedious, onerous, or unpleasant for a combination of these reasons.

Please assign one of the following numbers to each of the tasks numbered 1 to 52.

1. The task is unpleasant because it is socially anxiety-arousing. The anxiety is evoked as the result of an interpersonal situation.
2. The task is physically anxiety-arousing. There is little or no interpersonal element involved.
3. The task is unpleasant because it is tedious. Tedious means long, tiresome, repetitious, monotonous, wearing, exhausting, etc.
4. The task is unpleasant because it is onerous. This means burdensome, oppressive, troublesome, disgusting, but not tedious or anxiety-arousing.
5. The task is unpleasant for another reason that those mentioned above or because of a combination of two or more of the factors listed above.

If you have any suggestions or comments please make them on the back of your answer sheet.

Any additional suggestions for new behavioral tasks will be welcomed. But remember, the tasks must be simple and workable in an experimental situation.

Thank you.

## Appendix H (continued)

## Behavioral Tasks

1. Making a short speech in front of a group of people.
2. Cleaning up a mess on the floor with the help of another person.
3. Counting to 500 by threes out-loud.
4. Telling the next subject in an experiment a lie about what is required of him and what he will get for participating.
5. Pushing the button to give another person an electric shock.
6. Shining four pairs of shoes.
7. Eating a slice of lemon, skin and all.
8. Having to talk into a tape recorder about yourself for ten minutes.
9. Writing a 300 word essay giving a personal description of yourself.
10. You and another person must sort a jar of different colored beans into piles of each color.
11. Cleaning up a small mess on the floor with a toothbrush.
12. Sorting out a small pailful of nuts and bolts.
13. Sitting and anticipating receiving three electric shocks.
14. Reading a list of "dirty" sentences to a female assistant.
15. Making a hand-written copy of a page out of the Bible.
16. Picking up a spider out of a jar and letting it crawl up your arm.
17. Alternately counting backwards by threes from 300 to 0 with another person.
18. Being locked in a closed, tight space for a 15 minute period.
19. Sorting 500 different colored cards into pigeonholes.
20. Untieing a badly knotted shoelace.
21. Letting a hammer "guillotine" device fall within a hair of your outstretched hand.
22. Counting the beans in a small jar.
23. Cancelling out the vowels in a two page spread from Time Magazine.
24. Letting someone jab you with a needle.
25. Seeing and describing three gory accident scenes in great detail.
26. Having your arm tied to another person's arm and having to untie it with your free hands while you are both blindfolded.
27. Playing "rock-scissors-paper" with someone bigger and stronger than you.
28. Sitting for 39 minutes in an empty room alone with absolutely nothing to do.
29. Putting together a 50-piece all white jig-saw puzzle.
30. Describing three dull uninteresting pictures in great detail.

## Appendix H (continued)

31. Letting a female assistant interview you and ask you some very personal questions.
32. Having to push a pencil back and forth across the floor for one minute with your nose while on your hands and knees.
33. Releasing a pendulum at the top of its arch and standing stationary in one spot while it swings back towards you.
34. Letting someone jab you with a sterilized needle.
35. Letting a big cockroach crawl across your bare chest for one minute.
36. You have to count how many Smiths there are in the Indianapolis telephone directory.
37. Memorizing a short four line poem and being able to write it out correctly without looking.
38. Balancing on a narrow board a few feet off the ground blindfolded and walking from one end to the other.
39. Dialing a wrong number three times in succession.
40. Thinking up 25 words beginning with "G" and writing them down on a sheet of paper.
41. Having to serve as the subject in a demonstration in which an IQ test is given to you in front of a class of people who know you well.
42. Washing a half dozen pairs of dirty socks out by hand.
43. Finding a pin on the floor in a darkened room.
44. Smoking a loaded cigarette and not knowing exactly when the load will go off.
45. Standing a penny, nickel, and dime on edge until they are all standing at once.
46. Folding and tearing a pile of papers into fourths with the help of another person.
47. You must recite "Mary had a little lamb" in front of a group of people who know you well.
48. You must dress up like a girl and walk across an area where you are bound to pass several people you know.
49. Cleaning up a big mess of spilled coffee grounds with a teaspoon.
50. Offering another person a loaded cigarette and waiting around while he smokes it to see what happens.
51. Reaching into a deep box to pick up a large turtle.
52. Threading a needle blindfolded.

## Appendix I

## Rating Instructions for Degree of Unpleasantness

The items listed below, some of which you have seen before, are now to be rated along a 9-point scale of pleasantness-unpleasantness. On this scale a rating of 1 means the task strikes you as being extremely pleasant, a rating of 5 means the task seems to you to be neutral or neither pleasant or unpleasant, and a rating of 9 means the task is in your opinion extremely unpleasant. The numbers on the scale between 2 and 4 and between 6 and 8 correspond to different degrees of pleasantness and unpleasantness respectively. The rating scale can be visualized as follows:

' 1 ' 2 ' 3 ' 4 ' 5 ' 6 ' 7 ' 8 ' 9 '

- 1 = extremely pleasant
- 2 = very pleasant
- 3 = somewhat pleasant
- 4 = a little pleasant
- 5 = neutral
- 6 = a little unpleasant
- 7 = somewhat unpleasant
- 8 = very unpleasant
- 9 = extremely unpleasant

Please assign one number to each task indicating where you feel this task falls on this rating dimension in relation to the other tasks considered. Try to use the whole scale, including the extreme categories, and do not bunch all your ratings in the center of the scale.

## Appendix J

## Task Pairs Used in the Study

<u>Task Pair</u>	<u>Task Description</u>	<u>Mean Unpleasantness Rating<sup>1</sup></u>	<u>Category Placement<sup>2</sup></u>
1	Stand stationary in one spot and release a ball bearing pendulum from in front of your chin and wait while it swings back at you.	8.44	Physical Anxiety
	or Get down on your hands and knees and push a pencil back and forth across the floor with your nose for one minute.	8.42	Onerous
2	Smoke a loaded cigarette	7.44	Physical Anxiety
	or Clean up a big mess of spilled coffee grounds with a spoon.	7.48	Onerous-Tedious
3	Be blindfolded & walk across a narrow board which is several feet above the ground.	6.40	Physical Anxiety
	or Untie a badly knotted shoelace.	6.46	Onerous-Tedious
4	Push the button to shock someone else	6.34	Social Anxiety
	or Sort out a jar full of colored beans with another person's help.	6.48	Tedious
5	Read a list of dirty sentences to an elderly lady over the telephone. <sup>3</sup>	7.14	Social Anxiety
	or Count how many Jones' there are in the Indianapolis phone book.	7.23	Tedious
6	Eat a slice of lemon--skin and all.	7.06	Onerous
	or Count to 100 by threes out-loud.	6.77	Tedious

1. The mean unpleasantness ratings are those of the inmate raters only (N=100).
2. Category placement was made taking into consideration both the psychologists' and the inmates' ratings.
3. This list consisted of 10 dirty sentences composed by one of the inmates at the institution.

## Appendix K

## Lykken's Activity Preference Questionnaire

DirectionsRead Carefully

One way of understanding a person better is by studying the kinds of activities or experiences he likes or enjoys. This test employs the similar approach of studying the pattern of your dislikes. In each of the items on the following pages--and in the sample item below--two activities or experiences are described which most people would consider at least mildly unpleasant. Some of them are very unpleasant indeed. In some instances, you will find that similar things have actually happened to you; in the others, you can at least imagine what they would be like.

Your task is to try to imagine yourself in each of the two situations and then, pretending that either one or the other had to happen to you, to decide which one you would prefer--which of the two you would take as the 'lesser of two evils'.

SAMPLE ITEM

- (1) Having to work late one night.
- (2) Being run over by a train.

In this case there isn't much doubt that, if one of these things had to happen to you, you would prefer the alternative number 1--working late at night--as the lesser evil than the one numbered 2--being run over by a train! Therefore, you would mark a one in as your answer to this question. Please mark all your answers in on your answer sheets. On your answer sheet the numbers run from 1 to 100--one for every question. After each number you should put a 1 or a 2 to indicate which of the two alternatives for that question you feel is the lesser of two evils as far as you are concerned.

Answer every item on the test. Work rapidly but consider both alternatives in each item carefully. Imagine how you would feel about each alternative, decide which of the two would seem least unpleasant, and mark your answer sheet accordingly.

---Remember: Indicate the alternative that you would prefer.

## Appendix K (continued)

1. (1) Being interviewed for a job.  
(2) Moving the lawn.
2. (1) Sitting through a dull movie for the second time because the person you're with hasn't seen it.  
(2) Turning on a light switch when your hand is wet and you might get a shock.
3. (1) In the midst of traffic your horn sticks and begins to blow continuously.  
(2) In school having to give a report in front of the class.
4. (1) Your group takes up a collection to buy a sick member a gift. You discover later that your donation was much smaller than the others.  
(2) On doctor's orders, you can eat nothing for two weeks but a liquid dietary product.
5. (1) Take a roller coaster ride.  
(2) Wash three storm windows on both sides.
6. (1) Copying four pages of the dictionary.  
(2) Belching in church during prayer.
7. (1) Painting a large frame house.  
(2) Shoveling the walks after a snowstorm.
8. (1) Attempting to beat a railroad train at a crossing.  
(2) Spraining your ankle so that you have to have a cast put on it.
9. (1) Cleaning out a basement.  
(2) Going to a party where no one knows you.
10. (1) Getting caught at something.  
(2) Having your empty car smacked by a runaway truck.
11. (1) Having to get out of bed an hour earlier than usual.  
(2) You pass someone on the street and say, "Hi, Charley" and then realize it isn't Charley.
12. (1) Watching an operation.  
(2) Your favorite hat is lost or stolen.
13. (1) Accidentally dialing a wrong number twice in succession.  
(2) Giving a loud, uncontrollable sneeze during a quiet moment at the symphony.



## Appendix K (continued)

14. (1) Walking a mile when it's 15 degrees below zero.  
(2) Being near where a volcano erupts.
15. (1) People at a party are telling jokes. You tell a long drawn-out story but no one laughs.  
(2) You catch a bad cold the day before a big party.
16. (1) Hitting your thumb while hammering a nail.  
(2) After eating in a restaurant, you find that you can't pay the bill.
17. (1) Taking down the Christmas tree and cleaning up after it.  
(2) Jumping down 15 feet into soft earth.
18. (1) Whitewashing a long board fence.  
(2) Washing 20 storm windows on both sides.
19. (1) It is the first day in a new class. The teacher asks each person to stand up and tell about himself.  
(2) Sweep the kitchen floor.
20. (1) You must walk around all day on a blistered foot.  
(2) Sleeping out on a camping trip in an area where rattlesnakes have been reported.
21. (1) Several people push ahead of you in line but you can't bring yourself to say anything.  
(2) Wanting to go out some night and not having any money.
22. (1) Going to the morgue to identify an acquaintance who has been killed in an accident.  
(2) Letting a large but harmless spider run up your arm.
23. (1) Breaking your shoelace while getting dressed.  
(2) Your dog has torn up the neighbors newspaper and you have to go over and apologize.
24. (1) Find a big cockroach under your pillow.  
(2) Getting stuck in traffic when you're in a hurry.
25. (1) After a school exam, names and grades are posted on the wall. Yours is at the bottom of the list.  
(2) You find you must clean up the floor where someone has vomited.
26. (1) Having to run until your throat is sore and there's a pain in your side.  
(2) Help push a stalled car on a winter morning.

## Appendix K (continued)

27. (1) Getting ready to watch something important on television and having the set fail.  
(2) Upsetting a glass of milk on a neighbor's carpet.
28. (1) Finding a wrecked car in the ditch with three occupants unconscious and bleeding.  
(2) You go on a two-week ocean cruise and are seasick the entire time.
29. (1) You find that you must cancel your vacation.  
(2) You are arguing with friends and got so frustrated and upset that you choke up and your eyes fill with tears.
30. (1) Having your date at a dance leave without you.  
(2) Sitting through a long lecture with a runny nose and no handkerchief.
31. (1) Asking someone to pay you money that he owes you.  
(2) Sleeping one night on the floor.
32. (1) Balancing along the top rail of a picket fence.  
(2) Walking up four flights of stairs.
33. (1) Having to stay in bed with the flu and a sick headache.  
(2) Having your hands shake and your mouth go dry as you try to talk in front of a group.
34. (1) Having to spend half a day in a closet.  
(2) You overhear a friend say something sarcastic about your parents.
35. (1) Dispose of a dead mouse from a mousetrap.  
(2) Being caught in a bad thunderstorm.
36. (1) Being wheeled into the operating room to have your appendix removed.  
(2) A doctor has examined a sore in your throat and you are waiting to find out whether it's cancer.
37. (1) You're on stage in the school play and realize that you have forgotten your lines.  
(2) You return to your car parked downtown to find you left the lights on so that the battery is dead.
38. (1) Standing in a long line for something.  
(2) Being given an electric shock as part of a medical experiment.

## Appendix K (continued)

39. (1) Having your hair cut by an inexperienced barber.  
(2) You slip in the mud and get your new spring clothes soaked and dirty.
40. (1) Put on a shirt or a blouse and finding a button missing.  
(2) Having to ask where the bathroom is at a party.
41. (1) You're in a bank and suddenly three masked men with guns come in and make everyone raise their hands.  
(2) Sitting through a two-hour concert of bad music.
42. (1) Counting the beans needed to fill a four-quart candy jar.  
(2) At a high school picnic, they choose up sides for baseball and you are the last one picked.
43. (1) Washing a car.  
(2) Driving a car at 95 miles an hour.
44. (1) Having to ask the person behind you at the movie to stop kicking your seat.  
(2) Watching a long headache-pill commercial on TV.
45. (1) You are paddling a canoe across a large Canadian lake and a storm blows up.  
(2) Stumbling into an electric fan.
46. (1) You have taken a neighbor's child to the circus and realize you have lost him in the crowd.  
(2) While on vacation your car breaks down and you have to wait in a small town while parts are sent for.
47. (1) You must scrub the kitchen floor on hands and knees.  
(2) You must make a speech to 100 people.
48. (1) Having your car swing into a skid on an icy corner.  
(2) Having to walk five miles for gas.
49. (1) Having your empty car smacked by a runaway truck.  
(2) Having your grocery bag break and spill on a crowded street.
50. (1) You go to a party and find that you're the only one who dressed up.  
(2) Wet mopping the floor of a hospital corridor.

Appendix K (continued)

51. (1) You're at summer camp and must do 30 minutes of stiff calisthenics each morning before breakfast.  
(2) You row out in a boat to help bring in the body of a drowning victim.
52. (1) Digging a big rubbish pit.  
(2) A high pressure sales clerk bullies you into buying the higher-priced pair of shoes that you didn't want.
53. (1) Having a doctor stick a needle in your arm for an injection.  
(2) Falling out of a boat.
54. (1) Losing your wallet to a pickpocket.  
(2) Having someone say loudly to you at a party, "Why don't you go home? Nobody wants you here."
55. (1) Being chased by a huge and angry bull.  
(2) Spending a month in bed.
56. (1) Introducing yourself to a total stranger.  
(2) Having to stand up on the bus.
57. (1) Cleaning up your house after floodwaters have left it filled with mud and water.  
(2) Having to make a parachute jump.
58. (1) Being a restaurant dishwasher for one week.  
(2) You get a chance to be interviewed on TV to advertise a charity drive but you become tongue-tied and make a poor showing.
59. (1) Finding that you have been short-changed and having to return to the store and ask for the rest.  
(2) Sandpapering a wooden chair to get it ready for re-painting.
60. (1) Spending a week with nothing to eat but bread and water.  
(2) Going to the hospital to have a minor operation.
61. (1) Running out of gas in the middle of a crowded downtown intersection.  
(2) Waiting in line for two hours to pay a parking ticket.
62. (1) Having to give up eating desserts.  
(2) Swimming in very rough ocean water.

## Appendix K (continued)

63. (1) Just sitting around with nothing to do on a Sunday afternoon.  
(2) Cutting out the spoiled parts of a bushel of potatoes.
64. (1) You must wash out a dozen of someone else's dirty handkerchiefs by hand.  
(2) Walking into a room full of people, you stumble on a footstool and sprawl on the floor.
65. (1) Having someone get mad and tell you off.  
(2) Playing cards with people who are more skilled than you are and then making a dumb mistake.
66. (1) Being caught on a sandbar by the rising tide.  
(2) Being stranded in an off-shore lighthouse for a week by high tides.
67. (1) Being sick to your stomach for 24 hours.  
(2) Finding out you've overslept and missed an important appointment.
68. (1) You are introduced to a girl who is so attractive and poised that you become very shy and awkward.  
(2) You must find where someone else parked your car in a big lot at the state fair.
69. (1) Being in a flood.  
(2) Carrying a ton of coal from the backyard into the basement.
70. (1) Spilling paint all over your shoes.  
(2) Discovering your feet are dirty when you undress for a medical examination.
71. (1) Having to walk half a mile through a soaking rain without a coat.  
(2) Walking near a whirling plane propeller.
72. (1) Having a gabby old lady sit down next to you on the bus.  
(2) Catching a bad cold the day before a big party.
73. (1) You agree to supervise a child's birthday party but the children won't mind you and race around out of control.  
(2) Spending an evening with some boring people.

## Appendix K (continued)

74. (1) Laughing at something not meant to be funny.  
(2) Clean up the popcorn and candy wrappers in the neighborhood movie theatre.
75. (1) Walking around all day in tight, uncomfortable shoes.  
(2) Finding yourself in the midst of a fighting mob.
76. (1) You have spent all day preparing for a picnic but it rains just as you start to eat.  
(2) You overhear someone comment on how strangely you are dressed.
77. (1) Being threatened by a much bigger and more powerful person.  
(2) You're caught in a speed trap driving through a small town and must wait for an hour to pay at \$20 fine.
78. (1) Lick stamps for 1,000 letters.  
(2) Watch someone make a fool of himself on a television quiz program.
79. (1) You are given an IQ test in front of a college class as a demonstration.  
(2) Having to go down to the courthouse to renew your driver's license.
80. (1) Cleaning up the living room after the plaster has all fallen down.  
(2) Standing on the very top rung of a ladder in order to wash a second floor window.
81. (1) You are broke and have to borrow money for a meal  
(2) You must distribute 1000 handbills in mailboxes from door to door.
82. (1) Having a bad head cold.  
(2) Having your employer get mad about mistakes in your work.
83. (1) Looking for something in an attic storeroom on a stifling hot day.  
(2) Going into a dark cellar where there may be rats.
84. (1) "Having it out" with someone.  
(2) Sitting from midnight to 4:00 a.m. in a railroad station waiting for your train.

## Appendix K (continued)

85. (1) Walking barefoot in a room where some glass has been broken.  
(2) Walking barefoot across a burning hot sandy beach.
86. (1) Coming home hungry and having to eat a cold supper.  
(2) Stumbling in a crowded bus and dropping your load of packages.
87. (1) Coming out of a movie in your summer shoes to find it's snowed a foot deep.  
(2) Getting out of a warm bed in a room so cold that you can see your breath.
88. (1) Sorting out a pailful of nuts and bolts.  
(2) While flying home from a trip you get airsick and have to dash down the aisle to the washroom.
89. (1) Taking a long ride in a taxi and then finding you don't have enough money for a tip.  
(2) Getting paint in your hair.
90. (1) While dining at home, you spill a very hot cup of coffee in your lap.  
(2) You go with your date to a party but she slips away later and goes home with someone else.
91. (1) Waiting in a dentist's office to have a tooth pulled.  
(2) Having an earache.
92. (1) Having to go out to a party with large red pimple on the end of your nose.  
(2) Losing a book that you borrowed from a teacher and which can't be replaced.
93. (1) Your family, along with three others, must spend a month underground testing a fallout shelter.  
(2) You want to join a social club, but the members vote not to let you in.
94. (1) Out in the middle of a frozen lake, you realize the ice is unsafe.  
(2) You find that vandals have slashed all four tires on your car.

## Appendix K (continued)

- 95. (1) Waiting for an overdue bus.  
(2) Meeting a friend on the street and not being able to remember his name.
- 96. (1) You're in the back seat of a driverless car which suddenly starts rolling downhill.  
(2) Giving blood for the blood bank.
- 97. (1) You go to the beach with some friends and realize that all have a better build than you do.  
(2) Washing ten storm windows on both sides.
- 98. (1) Run a steam presser in a laundry for a week.  
(2) Being caught in a blizzard.
- 99. (1) Being asked for a contribution when you haven't any money.  
(2) Untying a hard knot in your shoelace.
- 100. (1) Having to "go out" with a visiting relative.  
(2) Banging your head on a cabinet door.



## VITA

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