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THE EFFECTIVENESS OF THE PERSONALITY DIMENSIONS OF DEPENDENCY, POWER AND INTERNAL-EXTERNAL LOCUS-OF-CONTROL IN DIFFERENTIATING AMONG UNREMITTED AND REMITTED ALCOHOLICS AND NON-ALCOHOLIC CONTROLS.

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The Effectiveness of the Personality Dimensions of Dependency, Power and Internal-External Locus of Control in Differentiating Among Unremitted and Remitted Alcoholics and Non-Alcoholic Controls

by

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ABSTRACT

The purpose of this study was to determine whether the personality dimensions of dependency, power, and locus of control could discriminate among samples of unremitted alcoholics, remitted alcoholics, and non-alcoholic controls. The alcoholic sample consisted of 54 males who had attended the same outpatient treatment programme. They were divided into 23 remitted alcoholics and 31 unremitted alcoholics using length of sobriety since leaving the treatment programme as the criterion. The mean age and average years of formal education for the remitted group was 43.5 and 10.3 years respectively. Similar figures for the unremitted group were 42.3 and 10.0 years respectively. The control group included 30 males whose mean age was 40.5 years and whose average years of formal education was 11.6 years. Both samples came from predominantly lower socioeconomic backgrounds.

It was predicted that the unremitted and remitted alcoholic groups' mean scores on the Oral Dependency scale would be significantly greater than the control group's mean score; that the unremitted alcoholic group's mean score on the Hope of Power measure would be significantly greater than the remitted alcoholic and control groups' mean scores; and that the unremitted alcoholic group's mean locus of control score would be significantly greater or in a more external direction than the remitted alcoholic and control groups mean scores.
The results indicated that hope of power was a distinguishing trait of those alcoholics who had not been able to maintain sobriety. Dependency was not found to be a differentiating personality trait, however, because of limitations with the measuring instruments of both power and dependency, it remains unclear whether the power motive is a better predictor of alcoholism. The results also suggested that internality is a distinctive trait among male alcoholics which is consistent with most previous research. These findings along with the results of the additional psychometric measures obtained were discussed and suggestions for future research were given.
PREFACE

There are several individuals who deserve acknowledgement because of their contributions to this research. To begin with, I want to express my sincere appreciation to Dr. H. Minton, my committee chairman, for his extensive and substantial advice. I am also most grateful to my family, especially my wife, Barbara, for her loving understanding and forbearance throughout this research.

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CHAPTER 1
INTRODUCTION

Whether alcoholism is a diagnostic entity itself or merely a symptom of some underlying psychopathology has been a major issue which has commanded the interests of many researchers. Sutherland, Schroeder, and Tordella (1950) and Syme (1957) critically reviewed two decades of research studies that were related to the hypothesis that alcoholism is caused by certain personality traits. They concluded that there was not enough satisfactory evidence available to justify the claim that persons of one type are more likely to become alcoholics than persons of another type.

Although the rather absolute conclusions of both Sutherland et. al., and Syme appear to have in some way served as a warning for clinical researchers interested in alcoholism for almost two decades, the pursuit of the alcoholic personality has continued. However, it has become increasingly clear that looking for the vague, amorphous and ill-defined alcoholic personality is unfruitful. Therefore, searching for more specific and more precisely defined personality factors which are necessary to explain the adoption of an addictive psychopathology should be the direction of more research. As Lisansky (1967) points out, the question to be posed is: "What character or personality traits tend to appear in certain individuals, which, together with
membership in highly prone social groups, make for a predisposition or a vulnerability to alcoholism?" (p. 4)

It is the purpose of the present study to investigate three personality dimensions as measured by a combination of psychological tests with the expectancy of discovering predictors or personality correlates of successfully rehabilitated alcoholics. These three dimensions are dependence, power and locus of control of reinforcement.

The contributions of this study will be in the area of understanding and treating alcoholism. Its significance is threefold: (1) It is a comparative investigation of two important personality dimensions associated with alcoholism, namely, dependence and power needs; (2) It will attempt to determine whether the locus of control of reinforcement has a significant place in understanding and/or treating the alcoholic; and (3) It will attempt to determine the role of any of these three variables in differentiating a remitted group of alcoholics from an unremitting group.

In addition, by dividing the alcoholic subjects into subgroups, using a combination of psychological tests along with other information and making several ratings for each subject, this study should come close to what is considered good clinical research procedure.

Personality Traits Associated With Alcoholism

There are many studies in the literature on alcoholism which
have attempted through various methods to delineate the personality traits commonly found among alcoholics. Investigators have provided personality descriptions based on inferences made from case studies of alcoholics and from the results of psychological tests administered to alcoholics. Subsequently, researchers have laboured either to develop theoretical conceptualizations of alcoholism, usually within a psychoanalytic framework (Blum, 1966) or merely analyzed groups of psychological test protocols in order to see what patterns emerge (Sutherland et al., 1950; Syme, 1957). The import of these methods is that they have been a source of ideas and hypotheses.

Lisański (1960) in an extensive and rather comprehensive article, reviewed the psychodynamic and learning theories of alcoholism focusing on the role of ambivalence and early life experiences in an attempt to come up with a predisposing personality constellation of the alcoholic. He states that from the experiences of infancy and childhood and adolescence, the imbalance of pleasure and pain, of satisfaction and frustration, the predisposed individual develops the certain recognizable traits in his adult years. These traits include an intensely strong dependency need with inadequate defense mechanisms against this excessive need, an independence-dependence conflict, low frustration or tension tolerance and unresolved love-hate ambivalences. In time narcissistic, egocentric, self-deprecating and masochistic behaviours become part of the alcoholic personality.

Blum (1966) in another comprehensive article discussed the psychoanalytic views on the etiology and treatment of alcoholism.
She points out that there are various predisposing personality types and precipitating factors which can contribute to the development of alcoholism. Although she does not explicitly delineate the characteristics of the alcoholic personality, several descriptive features can be culled from her article. For example, the alcoholic is described as being immaturely dependent upon significant adults, demanding nurturance without returns. Much of the alcoholic's behaviour is invested with private meanings which symbolize his dependence, ambivalence and love or hate toward parents or parent substitutes. Masochism is another unconscious aspect of the alcoholic's thinking and behaviour. Passivity, narcissism, depression and denial are also important traits found in many alcoholic personalities. Finally, aggressiveness, rebelliousness, superficial relating skills, homosexual tendencies and fears of sexual inadequacy, negative self-image, low self-esteem and compensatory over-activity and competitiveness complete the constellation of personality dimensions manifested in the alcoholic.

Empirical Studies

The following studies are reviewed because they provide empirical evidence of personality traits associated with alcoholism. Machover and Puzzo (1959) tested 46 male alcoholics, all members of Alcoholics Anonymous for an average of five years. Twenty-three had been sober for at least two years (remitted group), while the remaining 23 had stayed sober for less than six months (unremitted group). The mean age of the group was 41.9 years,
average educational attainment was 11.4 years and mean IQ was 119.9.
No control group was used. The purpose of their study was to obtain
information on personality factors in alcoholism in general. They
used eighty-eight diagnostic categories and found twenty-three
were present in sixty percent of the psychological reports. The
final twenty-three characteristics can be subsumed under the
following personality dimensions: social withdrawal, dependency
strivings, ambivalence, low self-esteem, homosexual and identity
difficulties, narcissism, feelings of hostility, guilt and depression,
inordinate tension and anxiety, authority problems, denial and
obsessive-compulsive trends. Machover and Puzzo admitted that this
pattern of traits could not be a sufficient cause of alcoholism.

Lawlis and Rubin (1971) administered the Sixteen Personality
Factor (16-PF) test to 78 male and 22 female alcoholic inpatients
of a state hospital. Most of the subjects had long histories of
alcoholism. Their mean age was 38; all had at least 11 years of
education; and they were primarily from the lower socio-economic
class. A factor analysis of the intercorrelations of the 16-PF
profiles produced three factors. Factor I represented those
alcoholics who could be described as inhibited or maladaptively
frustrated neurotics. Another group of alcoholics, represented
sociopathic individuals. The third sample or the factor II group
were labelled as basically unsocialized aggressive neurotics.
Two replication studies were attempted by the authors. The first
replication study's findings were similar to the original results;
however, in the second replication study, significant correlations
were found only with two of the group profiles in the original study. The discrepant group profile was described as reflecting a type of schizoid personality. Lawlis and Rubin concluded that it is doubtful that a unitary personality type exists among alcoholics.

In summary, it appears that whether the methods used to discover descriptive personality traits of the alcoholic are theoretically or empirically oriented, a common picture of the alcoholic is provided. Very generally, the alcoholic is a person plagued with a host of intrapersonal problems which in turn create many interpersonal conflicts. The list of traits or behavioural tendencies seems exhaustive. However, such an extensive list is only a starting point from which generalizations can be made that lend themselves to study and verification. One important question to be asked is: Which of these traits are distinguishing characteristics of alcoholics when compared with other non-alcoholic populations? To attempt to answer such a question, it becomes necessary to review some of the clinical studies whose samples include both alcoholic and non-alcoholic subjects.

Comparative Studies Of Alcoholics And Non-Alcoholics

Sutherland, Schroeder and Tordella (1950) summarized thirty-seven studies from 1936 to 1949 which attempted to differentiate personality characteristics of alcoholics from non-alcoholics. The authors group the studies into three categories according to the type of psychological tests used, namely, Rorschach, non-projective and other tests. In summarizing the conclusions of the Rorschach studies, the authors outlined the following personality characteristics: (1)
Alcoholics were more like psychopaths than neurotics in their psychopathology; (2) they showed a general incapacity to cope with tension; (3) their ideas for success were grandiose but they lacked perseverance and consequently experienced many failures; (4) alcoholics suffer from anxiety and guilt; (5) they were described as self-centered, highly constricted, stereotyped and pedantic and maladjusted in social and interpersonal situations.

With regard to the non-projective group of studies, the authors concluded that they did not provide any conclusive evidence that alcoholics differed from non-alcoholics on the personality traits investigated. In addition, even where a difference was found, the psychology test used was of questionable validity. The other test category of research included interviews and case history methods. Five characteristics were studied, namely, introversion-extraversion, mother attachment, psychosexual adjustment, marital difficulties and original position among siblings. However, once again, no conclusions could be reached from the reviews of these studies because of conflicting findings among the various investigators.

The general conclusion presented by Sutherland et al. was that evidence of a predisposing alcoholic personality was not found.

Syme (1957) also offered a critique of those studies attempting to discover the distinguishing characteristics of alcoholics when compared with non-alcoholics. He reviewed many of the same studies included in Sutherland, Schroeder and Tordella's (1950) survey, plus the extra studies which had been published from 1950 to 1956. He concluded that there was no evidence which suggested that
persons of one type are more likely to become alcoholics than persons of another type. However, within the group of projective studies the Rorschach findings revealed the following common traits among the alcoholic subjects: poor reality testing, constriction, impulsivity, passivity, avoidance of human relationships, pseudoambition and little or no introspection. His summary of the non-projective studies suggested that the alcoholic is a tense and bitter individual who projects much of his hostility onto his environment and who struggles with homosexual tendencies.

The reviews by Sutherland et. al. and Syme cover the research prior to the last two decades. That period of investigation appears to be a time when projective tests were regarded as an unquestionable method of assessment. Therefore the non-projective studies were criticized because they only measured what the subject was willing to report. However, many of the Rorschach studies could not be used because of various methodological deficiencies and those that were acceptable only compared the different scoring determinants. Furthermore, none of the findings of these studies were linked to theoretical notions. The following studies represent the type of research undertaken during the last two decades.

Hoyt and Sediacek (1958) proposed to identify those personality characteristics of alcoholics which distinguish them from non-alcoholics and other clinical groups. They criticized previous research for being limited by small sample size, and by not differentiating alcoholics from other clinical groups. Their male subjects consisted of two alcoholic samples, three groups of normals and four clinical groups.
The authors completed an item analysis, mean profile comparison and a pattern analysis on all of the MMPI records. The mean profiles of the normals and alcoholics were quite similar except for the alcoholics having higher elevations on the Pd and D scales. The psychiatric samples obtained much higher mean profiles than the alcoholic group. Finally, Pd was consistently the highest scale of the alcoholic sample's profile patterns and it occurred more frequently in this group than either the normal or clinical group profile patterns. Hoyt and Sedlacek suggest that the lack of clearly defined samples requires caution in interpreting their findings.

Rosen (1960) claimed that the contradictory findings of the studies interested in the etiology of alcoholism are probably the result of the source of samples used rather than of any real differences in personality between the alcoholics and other clinical groups. Consequently, Rosen carefully selected six samples from the same geographical area. There were 78 male alcoholic outpatients whose average age was 39 years with a mean education of grade 11 and an IQ in the bright-normal to superior range. From a psychiatric clinic, he selected 35 male outpatients whose average age was 32 years with a mean education of grade 12 and an IQ in the bright-normal range. The third group of subjects consisted of 17 Skid Row male alcoholics. There was another group of 64 male non-psychotic alcoholic inpatients of a state mental institution. The remaining two samples were female.

He found that both outpatient and Skid Row alcoholics scored significantly higher on almost all of the MMPI scales than the
hospitalized alcoholics. Their mean group profiles were similar to the psychiatric outpatients except for higher scores on Pt, Sc, and Pd. The outpatient alcoholics were described as more self-punitive and self-debasing with essentially a psychoneurotic character structure. In addition, they have a high amount of impulse and rebellious acting out against authority thus making social regulation and social mores their primary problem areas. Rosen concluded that alcoholics do not form a homogeneous group and that they are not significantly different from other psychiatric patients. Consequently, the research problem should focus on what determines the choice of symptoms instead of what are the diagnostic or symptomatic features of the alcoholic.

Hill, Haertzen and Davis (1962) did a cross-group comparison of personality characteristics of alcoholics, narcotic addicts and criminals. The common feature of these three groups is their social deviance. They used the criminals as a non-addict control group along with the groups used in standardizing the MMPI. The main purpose of the study was to discover whether social deviance is different among the three groups and to delineate similarities and differences of personality configurations by means of factor analysis. The alcoholic sample included 199 male inpatients at a state hospital whose mean age was 44.2 years.

They found the alcoholics and addicts significantly more depressed than the criminals; otherwise, their profiles were quite similar in that they were marked by a high elevation on the Psychopathic Deviancy scale. The factor analysis revealed that although non-neurotic and non-psychotic psychopathic deviance was
common to all groups, it showed up more frequently among the two non-alcoholic groups. Since this is only a statistical difference, it offers little practical import to the understanding of the alcoholic personality. A second factor confirmed that depression is more common among the alcoholic subjects and a third suggested that all three groups were schizoidal. The authors also pointed out that their findings contradict Rosen's (1960) conclusion that alcoholics cannot be differentiated from other psychiatric patients.

MacAndrew and Geerstma (1963) attempted to determine both the meaning and pragmatic relevance of the findings that alcoholics typically exhibit a high elevation on the Pd scale of the MMPI. They compared the MMPI profiles of alcoholic and non-alcoholic psychiatric subjects and completed a factor analysis of their responses to the Pd scale. Their alcoholic group was comprised of 200 male alcoholic outpatients whose average age was 40.8 years and who lived in a large metropolitan area. The psychiatric sample consisted of 200 male outpatients from the same treatment facility as the alcoholics. Their mean age was 36.3 years. As in previous studies, the Pd scale was significantly higher among the alcoholics than the controls. Of the five factors extracted by the factor analysis, only two were found to discriminate between the alcoholics and controls. Alcoholics were described as more socially deviant and remorsefully introjective than the non-alcoholic group. The other personality characteristics of the alcoholic subjects were marked lack of spontaneity with pervasive despair, fear of rejection and dissatisfaction with their family situation.

It is evident from the findings of the MMPI studies reviewed so
far that alcoholics as a group can be differentiated from non-alcoholic samples. More specifically, alcoholics consistently appear to be more socially deviant although the characterological meaning of this finding has not been thoroughly explained. Depression was another common personality feature of the alcoholics which distinguished them from non-alcoholics in two of the four studies. In addition, there was a neurotic character structure present in the alcoholic personality in most of the studies. The only study (Rosen, 1960) that used different alcoholic groups found significant differences among them.

The MMPI is not the only test which successfully differentiates alcoholics from non-alcoholics. Armstrong and Hoyt (1963) used a test called the IES which purportedly measured strengths of impulses (I), ego (E) and superego (S). This test consists of four subtests which tap strength of impulse control, ego and superego in such areas as behavioural functioning, self-concept and perception of environment. The purpose of the study was to explore the self-concept of the alcoholic's personality structure.

Their samples consisted of two groups: 30 male non-psychotic alcoholic inpatients and 30 normal males. The authors found alcoholics to be impulse ridden and have more punitive superego than normals. The ego strength of the alcoholics was less than the normal group. The alcoholic's self-concept was marked by guilt, high moralism and unworthiness. Furthermore, they use defense mechanisms of denial and projection to not accept responsibility and guilt for their behaviour and to view the world as moralistic and condemning.

Williams, McCourt and Schneider (1971) compared the test results of two different groups of alcoholics and two non-alcoholic
samples with the aim of examining certain personality characteristics of alcoholism. The main tests used were the Kalin personality inventory, Barratt Impulsivity scale and MacAndrew alcoholism scale. The Kalin test consists of 100 items culled from the California Personality Inventory, Omnibus Personality Inventory and the MMPI. The Barratt scale is another paper and pencil test having 80 items. The authors claim its reliability and validity are satisfactory. The MacAndrew scale consisting of 51 MMPI items has been proven useful in differentiating alcoholics from psychiatric patients. The alcoholic sample included 53 male inpatients and 31 male outpatients whose mean ages were 43.2 and 38.0 years respectively. The non-alcoholic group included 62 male psychiatric inpatients with various diagnoses and 29 male medical outpatients whose average ages were 47.7 and 40.3 years respectively. These subjects were further divided into heavy drinkers and light drinkers.

The four personality features which distinguished both alcoholic samples from the controls were antisocial tendencies, aggressiveness, lack of order and few moralistic attitudes. Antisocial tendencies appeared to be most characteristic of the alcoholics. The authors also pointed out that because the heavy drinking non-alcoholic subjects and heavy drinking college students in previous studies scored in the same direction as the alcoholics on these four personality variables, then these characteristics must be antecedent to alcoholism.

Williams et. al.'s (1971) conclusion concerning the personality variables antedating alcoholism is rather tenuous. However, Jones'
(1968) longitudinal research project provided evidence that there are alcohol-related behaviours which are to some extent expressions of personality tendencies which are exhibited before drinking patterns have been established. Comparisons were made of the subjects at three different points in the study: at age ten and a half years, at completion of high school and at age thirty-eight.

Fifty-two adult males were used in the final group comparisons. Jones claims that the subjects were urban and predominantly middle class and that this socio-economic status did not change significantly throughout the study. The main research instrument for the personality ratings was the Q-sort technique. The subjects were divided into problem, moderate and non-drinkers. During the adult years, the male problem drinkers when compared with the other two groups were uncontrolled and extroversion, unable to cope under tension, moody, self-indulgent, showing aggressive acting-out tendencies and a heightened concern about masculinity and gregarious. Similarly during the school years, the adult problem drinkers were rated as under-controlled, assertive, rebellious, pushing the limits and overly hostile, unable to function comfortably in a dependency relationship and having strong masculinity strivings.

Summary

The purpose or aim of each of the seven studies reviewed above has been to delineate and examine some of the personality variables found among alcoholics. The alcoholic subjects were typically compared to non-alcoholic control groups which often contained both psychiatric patients and normal individuals. The
common distinguishing personality traits of the alcoholic appear to be impulsivity, antisocial and rebellious acting out, depression or moodiness and guilt. Furthermore, these personality descriptions are for male alcoholics who at the time of testing were in their late thirties or early forties and who were being treated for their addiction either as an inpatient or outpatient. When reported, their socioeconomic backgrounds were lower or middle class.

Looking at these studies more critically, several common weaknesses can be delineated. All of the studies are essentially psychometric in that they demonstrate the effectiveness of a particular test, used alone or with other tests, in differentiating alcoholics from non-alcoholics. None of the results were linked to theoretical formulations. Consequently, the studies offer little understanding of the personality dynamics of an alcoholic. Although it has been proposed and generally accepted that alcoholism is a progressive illness with concomitant personality changes (Blum, 1966; Jellinek, 1952; and Lisansky, 1960) none of the researchers reported the number of years of problem or uncontrolled drinking for their subjects. A few authors recognized the fact that alcoholics are not a homogeneous group and divided their subjects according to patient status. One study (Rosen, 1960) went a step further and added a third group of Skid Row alcoholics and found different test profiles for the three samples. The control groups in most studies were non-alcoholic psychiatric patients. Finally, only one study (MacAndrew & Geerstma, 1963) investigated a specific personality variable. The other studies
were searching for those traits which form a rather ill-defined and vague alcoholic personality.

Therefore, in order to overcome some of these research weaknesses, the present study attempts to investigate three specific and precisely defined personality dimensions which are found in theory.

To control as much as possible the heterogeneity among alcoholic personalities, all the alcoholic subjects will have participated in the same treatment programme and will be similar in socioeconomic background, age, and extent of alcohol addiction. This latter variable will be controlled by dividing the alcoholics into remitted and unremitting groups. Instead of using psychiatric patients as controls, non-alcoholic normals with similar backgrounds will be used. Lastly, a combination of psychological tests will be used to avoid the limitations imposed by using only one test. However, before listing the specific hypotheses to be tested, a review of the literature on the three personality dimensions, namely, dependency, power and locus of control of reinforcement will be given.

Dependency

Theoretical Formulations

The dominant theoretical view of alcoholism is based on dependence. In other words, a person who is most likely to become an alcoholic has some kind of dependency conflict and lives in a society which fosters this conflict. This conflict arises from an inability to cope with strong dependency needs. In the case of the dependent male, there is a repressed but active craving for
loving maternal care along with a very strong but suppressed aggressive need. Alcohol does a lot for these two needs. It permits the young man to act as aggressively as he feels, without forcing him to assume full responsibility for his actions. It permits him to gratify his dependency cravings without forcing his consciousness to become aware of them. This very generally, is the type of thinking common to the psychoanalytic literature.

Blum (1966) claims that there are several predisposing factors in the development of alcoholism. However, among the most crucial are the ones related to the dependency situation and to the resolution of conflicts arising at different growth stages. Thwarting, spoiling or rapid alternations between both extremes during infancy leads to undue dependency during adulthood because methods of obtaining pleasure appropriate to early helplessness are retained.

In a classic psychoanalytic paper, Knight (1937) argues that alcoholism represents an attempt to resolve an underlying emotional conflict common to all cases of alcoholism and the fact that chronic and excessive drinking is common suggests a similarity in the psychodynamics of drinking itself. He states that mothers of alcoholics are typically over-indulgent and protective while fathers can be either over-indulgent or cold, aloof and exacting which is more often the case. Along with these parental roles, Knight believes there must be a certain combination of circumstances in order to precipitate the onset of drinking. For example, the social connotations of drinking, that is, virility, machismo and
bravado do much to seduce the immature and passive male adolescent
into drinking as a means of overcoming his basic feelings of
inferiority.

Knight sees the psychology of drinking as a neurotic vicious
circle, one which is immensely complicated by the intertwining
with it of alcoholism. He describes the sequence as follows:

His childhood experiences have given him a
personality characterized by excessive demands
for indulgence. These demands are doomed to
frustration in the world of adults. He reacts
to the frustration with intolerable disappoint-
ment and rage. This reaction impels him to
hostile acts and wishes against the thwarting
individuals for which he then feels guilty and
punishes himself masochistically. As reassurance
against guilt feelings and fear of dangerously
destructive masochism and reality consequences of
his behaviour, he feels excessive need for affection
and indulgence as proof of affection. Again the
excessive claims, doomed to frustration, arise,
and the circle is complete. The use of alcohol as
a pacifier for disappointment and rage, as a
potent means of carrying out hostile impulses to
spite his parents and friends, as a method of
securing masochistic gratification of the need for
affection is now interweaving itself in the
neurotic vicious circle. (1937, p. 546)

Lissansky (1960) hypothesizes that an intensely strong need or
impulse toward dependency along with inadequate defense mech-
anisms against this need and an intense dependence-independence
conflict are in part necessary although not sufficient factors,
which predispose an individual toward alcoholism. While dependency,
as the passive state of freedom from responsibility, has its reward,
so does the state of male adult independence. Hence this conflict
is common to both those who are predisposed to alcoholism and those
who are not. Although the accuity of this conflict is not apparent
after many years of excessive drinking, the alcoholism is in a sense, the individual's surrender to his dependency. In a similar fashion, Fenichel (1945) writes that alcoholics use the effects of alcohol to satisfy simultaneously, archaic oral longings, a need for security and a need for the maintenance of self-esteem. Alcohol means fulfillment, or at least hope of fulfillment, of deep and primitive desires more urgently felt than other sexual or instinctual longings. Alcoholics are fixated to a passive-narcissistic aim and interested solely in acquiring their gratification without reciprocating.

Empirical Studies

McCord and McCord (1960) using the records available on 510 adult males, who had been subjects in the earlier longitudinal study which began in 1935, completed the first longitudinal study of alcoholism. During their study, the males were in their early thirties and had been approximately nine years old when the original project began. The McCords used the criteria of Alcoholics Anonymous membership, two or more arrests for drunkenness or involvement in other treatment facilities. Consequently 29 alcoholic males were in the experimental group. Their control group consisted of 158 males whose background excluded alcoholism and criminal deviance as adults. Their socioeconomic backgrounds were primarily urban lower-class Roman Catholic immigrant families in Massachusetts. The raw observations made during 1935–1945 were rated into discrete and highly behaviourally defined categories.

The McCords concluded that their findings supported the hypothesis that a dependency conflict is the psychogenic substrate
of alcoholism. They discovered six dependency variables to be more common in the families of those boys who later became adult alcoholics than in the non-deviant families. Three of these variables, namely, maternal alternation between affection and rejection, deviant i.e., criminal, promiscuous or alcoholic, mother and denigration of mother by father, appeared to contribute to the highest rates of alcoholism with the families. To complete their description of the psychogenesis of alcoholism, the McCords added the personality variable of role confusion.

They pointed out that without an adequate adult male model, the child does not learn to accept responsibility which contributes to his developing dependency conflict. Consequently, a confused perception of his role expectations and an inadequate self-image develops, thus further predisposing the individual toward alcoholism. This interpretation was based on six variables frequently found in the families of pre-adult alcoholics. Four variables, namely, overt maternal rejection or punitiveness, paternal escapism from crises, absence of high demands for the child and influence of an outsider who is in conflict with parents over expectations for the child were found in eighty-three per cent of the families which produced an alcoholic son.

In the only other aforementioned longitudinal study (Jones, 1968), dependency strivings were an important personality trait among her male problem drinkers during both adolescence and adulthood. During adolescence, there was evidence of an intense dependence-independence conflict which was expressed in rebellious behaviours.
toward authority and in an inability to function comfortably in a dependency relationship. Jones pointed out that the high value placed on masculinity by preproblem drinkers might be assumed to be evidence of defensive attitudes related to the dependency conflict.

The McCord and McCord study and Knight's theoretical formulations both point to the important roles parents play in the development of alcoholism in a child. Knight and Jones agree that extroverstive behaviours are probably a facade for underlying dependency needs. In addition, antisocial and aggressive behaviour have been found repeatedly as a distinguishing trait of adult alcoholics in the psychometric studies reviewed above. It is also evident that many of the authors describe low self-esteem and debasement as supplementing the basic dependency problem of adult alcoholics.

Bacon, Barry and Child (1965) in their cross-cultural study of drinking, tested the hypothesis that amounts and patterns of alcohol consumption by adults have their antecedents partly in the degree and pattern of nurturance in infancy, the extent of demands for self-reliance and achievement in childhood and the extent to which the expression of dependency needs is permitted in adult life. Although their correlational data was taken from global cultural indices of indulgence and drinking, they believe their hypothesis was confirmed. More specifically, Bacon et. al., found that societies which indulge dependency needs in infancy and childhood tend to show less alcohol consumption than those societies which are less indulgent. In addition, frequent drunkenness, high consumption, or both, were found to occur in cultures where needs for dependency were deprived or punished during childhood and adulthood.
and where a high degree of responsible, independent and achieving behaviours are demanded. Although their conclusions appear to be the result of fitting the data to theoretical formulations, they do provide some empirical support for the role of society in the development of alcoholism.

Morrison (1973) investigated the hypothesis that there is a character matrix at the core of the alcoholic personality and that this matrix consists of traits reflecting unfulfilled dependency needs, dependency conflicts and their resulting psychological derivatives. He proposed that the revised Picture Preference Test (PPT) would significantly distinguish alcoholics from neurotics and normals. This test was originally developed by Cowan (1967) and its revised form consists of 144 pairs of pictures of which the subjects are asked to choose the picture they prefer. The picture pairs have been constructed to depict certain needs, for example, oral dependence, masochistic tendencies, magical omnipotence fantasies, and antisocial impulses, which are believed to be part of the character matrix. Hence, an individual's choice should reflect the presence or absence of certain underlying personality dynamics.

He used 50 non-psychotic outpatient alcoholic males and 35 male neurotic psychiatric outpatients from the same hospital. There were also 50 individuals in the normal sample, none of whom had an oral dependence or psychiatric history. The average ages for the three groups were 39.28, 37.75 and 41.59 years respectively. Social class was primarily lower-middle and upper-middle except for the significantly higher proportion of middle class subjects in the normal sample. Morrison found that alcoholics
scored higher than neurotics and normals on the PPT total score for addiction. The alcoholics were also differentiated from the control groups with their higher scores on oral dependence, antisocial impulses, infinite need for security and masochistic tendencies. In addition, the alcoholics more often had the postulated trait patterns than either neurotics or normals. With the alcoholic sample, these two patterns were independent which suggested that the alcoholic process involves two orientations, seeking nurturance and hostile reactions when frustrated. However, there was some indication that the trait scales of oral dependence and magical omnipotent fantasies were not measuring a homogeneous trait.

Conclusions

It appears, from both the empirical studies and theoretical articles, that dependence is a personality trait which plays a role in the etiology of alcoholism. Many of the authors carefully pointed out that other personality characteristics and environmental circumstances have an important part in this addictive process. Thus they acknowledge that dependency is only one of several factors in the development of alcoholism. Furthermore, it is the frustration of this intense need that produces the commonly observed aggressive and rebellious acting-out behaviour which has been also interpreted as compensatory behaviour for felt inadequacies as a male in a society which places a high value on responsible adult male roles. This aspect of the alcoholic personality provides an explanation for the socially deviant, antisocial traits and general dissatisfaction with life repeatedly found in test patterns of alcoholics. The salient weakness of three of the empirical studies (Bacon, Barry &
Child, 1965; Jones, 1968; and McCord & McCord, 1960) is that either few or no direct measures of dependency were made. Instead inferences were based on a multitude of general observations and measurements.

Theoretical Background

Before discussing the power motive and its relation to drinking, a brief outline of the nature of power as a personality construct will be given. Since it is not within the purview of this paper to discuss this construct in detail, the reader is referred to a review by Minton (1972). The power motive has been described by Winter (1973) as one key personal variable necessary for understanding power behaviour. As a motive it represents a disposition to strive for certain kinds of goals, or to be affected by certain kinds of incentives. People who have such a motive are trying to bring about a certain state of affairs; they want to feel power and power is their goal.

In the earlier research on the power motive, Veroff (1957) described power as the control of the means necessary to gain power in order to compensate for the lack of self-determination that an individual possesses and feels. In part, it is a defensive manipulative concern with getting one's way in a threatening world. More recently, Uleman (1972) used the term "need to influence" in place of power motive because he believed that it was a function of social competence and mastery, a kind of interpersonal effectance motive. In other words, the need to influence represented the involvement in a nexus of mutual influence with sensitivity
to feedback about such influence attempts in a face-to-face encounter. Uleman viewed his construct as rewarding in its own right, and simply as an exercise and expression of one's interpersonal capabilities. Contrastingly, Veroff's power motive seems to be derived from feelings of powerlessness and the subsequent belief that power can be attained through assertive behaviours. Therefore, Veroff's motive has primarily negative, defensive and avoidance aspects while Uleman's is a more positive orientation towards power.

Winter (1973) incorporated both the approach and avoidance aspects into his final power construct. His power motive represents the sum of the approach and avoidance motives in the area of power. This partitioning was in part the result of his work with McClelland (McClelland, Davis, Kalin & Wanner, 1972). These authors found that individuals with high power needs exhibited different action correlates depending upon whether their inhibition level was high or low. Those individuals with a combination of high power and high inhibition exercised their power on behalf of others, that is, in more altruistic and socialized ways; whereas, those with a combination of high power and low inhibition demonstrated a tendency to have an impact on others by drinking, fighting, speeding and sexual aggression. McClelland et. al. labelled the former combination Socialized Power or s-Power and the latter combination Personalized Power or P-Power.

Winter, however, partitioned his power motive into Fear of Power and Hope of Power. Although his Hope/Fear distinction was based on McClelland et. al.'s p/s distinction, his interpretation or understanding of the nature of power is different from theirs.
McClelland et al. identify p Power with dominance and s Power with leadership which reflects a kind of bad/good distinction. Both p Power and s Power appear to be approach motives, differing mainly in the nature of the power goal that is approached. Winter believes that the so-called good behaviours, such as, office-holding and the bad behaviours, such as, drinking, gambling and aggression are both related to the same aspect of the power motive, namely, Hope of Power. The Fear of Power incorporated a fear of one's own power, of other's power and of losing power. Behaviourally, these aspects represent a reluctance to engage in power actions, a fear of structures imposed by others and a certain autonomy in personal and academic life, respectively. In this sense, Fear of Power seems to act as an avoidance motive in behaviour, in that it avoids the bad side of power.

Although there is this conceptual difference between Winter and McClelland et al., the Fear of Power correlated highly with s Power and both distinctions predict liquor consumption in the same way. There is also significantly high positive correlation between p Power and Hope of Power. In addition, Winter’s scoring categories for Hope of Power and Fear of Power are based on the p Power and s Power definitions respectively. Activity Inhibition, another factor McClelland et al. found important in predicting drinking behaviour is related to Fear of Power in the same way it is related to s Power. Therefore Winter’s scoring system will be used in this research because it is more extensively explained.

Empirical Studies

McClelland, Davis, Kalin and Wanner (1972) have done a great
deal of research with college and non-college adult males in an attempt to prove that the need for power not dependency is the primary cause of heavy drinking. According to McClelland et al., it is the source of damage to male self-esteem and assertiveness which in turn generates a tendency to demonstrate male strength and personalized power. The adult characteristics of alcoholics, such as, lack of inhibition, heightened concern over potency and sexual adequacy, aggression, feeling victimized or grandiose and socially deviant or extroversion tendencies appear to be related just as much to dependency as to power, that is, personalized power. They argue that the alcoholic's concern for personalized power probably developed, in part defensively, to compensate for felt inferiority and in part offensively, to support an aggressive stance toward life which has proven rewarding in the past.

McClelland et al. (1972) completed several studies in order to determine whether alcohol caused some kind of spontaneous internal change in fantasy or in perceptions of the world. They began by sponsoring cocktail parties for fraternities and asked the college students to write imaginative stories to Thematic Apperception Test (TAT) like cards before, half way through and at the end of each party. These parties were either alcoholic or non-alcoholic. The authors found no evidence of oral gratification or dependency fantasies in these stories. Instead, they discovered that power thoughts, that is, thoughts about having an impact on others, of aggression, of sexual conquest, of being big, strong and influential, increased with drinking. Two types of power thoughts were distinguished. One type focused
on personal dominance, over others which contributed to a personalized power or p Power score. The other type emphasized an altruistic exercise of power on behalf of others. These thoughts made up the socialized power or s Power score. In addition, a factor analysis of the coded stories showed that two factors, Power and Inhibition, accounted for most of the variance in alcohol consumption. There were two measures of inhibition in the studies, Time Concern and Activity Inhibition. Time Concern is a measure of situation-bound restraining tendency, such as wanting to get on to something else; whereas, Activity Inhibition is a more general measure of the tendency of the individual to restrain himself on a variety of occasions in a variety of situations.

In a series of studies conducted with older men in a working-class bar, the authors found that p Power thoughts rose sharply with the number of drinks. The subjects in these bar studies were predominately in their thirties, lower class and with an average of one year's education beyond high school. In either the party or bar setting, the subjects' stories initially reflected s'Power thoughts, but as liquor drinking continued their stories became replete with p Power fantasies. With regard to inhibition, Time Concern diminished with increased alcohol consumption while Activity Inhibition remained relatively stable. Consequently, only Time Concern predicted amount of liquor consumed on a particular occasion. Furthermore, they compared the drinking histories of these older men with their imaginative stories told when sober. Those subjects with high p Power scores tended to have a history of heavier drinking than those with high s Power
scores. Also, most heavy drinkers had low Activity Inhibition scores and high Time Concern scores. It is noteworthy that this finding was true only for liquor drinking as opposed to beer and wine. They concluded that an excessive drinker is a person with an intense need for personal power who has chosen drinking as the means to accentuate his feeling of power. In fact, those subjects who had a strong concern for personalized power illustrated a sequence in which heavy liquor drinking enhanced this sense of power and led to more drinking, drunkenness, fights, accidents, marital discord and sexual exploits.

There have been two studies which have looked at the findings of McClelland et. al. (1972) and found contradictory results. Cutter, Key, Rothstein and Jones (1973) criticized the experimental design of McClelland et. al. claiming that alcohol consumption and personality variables of power and inhibition were used interchangeably as independent and dependent experimental variables. They attempted to correct this weakness in a design set up to investigate the relation of alcohol consumption, power, inhibition and group size on the size of a voluntary second drink. They used 54 male hospitalized alcoholics with an average age of 44 and a mean education of 12.6 years. Contrary to their hypothesis that p Power scores would increase more with alcohol consumption, the authors discovered that amount of alcohol consumed did not affect the power scores differentially since n Power, s Power and p Power all increased with drinking. Furthermore, the power scores did not predict size of voluntary second drink which was contrary to the prediction that high P Power scores should lead to a large second drink. With regard
to inhibition, alcohol consumption decreased both Activity Inhibition and Inhibition scores as hypothesized. As for predicting size of second drink, only the Inhibition scores showed a significant relationship, in that, the more inhibited subjects chose smaller second drinks than less inhibited subjects. This finding supports McClelland et. al.'s findings that Time Concern predicts amount of alcohol consumed whereas Activity Inhibition does not. The authors argued that these findings demonstrate that inhibition is more important than power in predicting drinking behavior. However there is some confusion in that it is not clear whether the two inhibition scores were measured in the same way as McClelland et. al.'s Time Concern and Activity Inhibition.

In the other study, Key, Cutter, Rothstein and Jones (1972) completed a factor analysis study in order to test the validity of McClelland et. al.'s (1972) hypothesis that power and inhibition characterize excessive drinkers. Key et. al. also used hospitalized male alcoholics whereas McClelland et. al. used non-alcoholic males. The authors believed that inhibition, rather than power, is more central to the explanation of drinking with alcoholics. They gave four Thematic Apperception Test cards and several lengthy questionnaires to their subjects and came up with sixty-one variables. These variables were factor analyzed and five interpretable factors were extracted which accounted for forty per cent of the variance. Two factors, directive assertiveness and youthful aggressive impulsivity corresponded most closely to McClelland et. al.'s dimension of power and inhibition respectively.

To test whether power has the same implications for their
alcoholic sample as Power did for McClelland et al.'s subjects, they first looked at liquor and beer drinking loadings on their factors. Liquor drinking loadings contradicted McClelland et al.'s findings while the beer drinking loadings were in the predicted direction. In other words, the liquor loadings were negative and low on both the power and inhibition dimensions whereas, in McClelland's studies, they were very high on the power factor and very low on the inhibition factor. With beer drinking indices, the loadings were low and negative on power factor and high and positive on the inhibition factor in both studies. Hence, Key et al. (1972) concluded that the relationship between drinking and power and inhibition is not the same for hospitalized alcoholics as for the non-alcoholic drinkers. To determine the equivalence of their inhibition dimension with McClelland et al.'s, they tested the predicting ability of their factors on the size of the voluntary second drink. They hypothesized that inhibition would predict size accurately only if the subject drank alone. Using a design similar to that of Cutter, Key, Rothstein and Jones (1973), they found that their inhibition factor did control the size of the second drink in the expected direction. However, their power dimension did not. Thus, they concluded that their inhibition factor was similar. In summarizing their results Key, Cutter, Rothstein and Jones stated that: (1) theoretically, power may not be a unitary factor accounting for drinking behaviour; (2) drinking by alcoholics is different from drinking by non-alcoholics; (3) their power dimension not being similar to McClelland et al.'s, probably was responsible for the observed inconsistency in its relationship to drinking.
Conclusions

It is evident that some doubt exists as to whether the findings of McClelland, Davis, Kalin and Wanner (1972) are applicable to alcoholics. Two studies (Cutter et al., 1972; and Key et al., 1973) have shown inconsistencies in their research findings using some of McClelland et al.'s hypotheses. Furthermore, both the complexity of the statistical designs and the interpretations based on them make it rather difficult to ascertain which areas of McClelland et al.'s studies should be examined. There is also the question of sex differences. All of the above studies on power and drinking have used only male subjects. However, Wilsnack (1974) using an experimental design similar to McClelland et al.'s (1972) wet and dry party settings, found that alcohol consumption did not increase dependency or power needs among female subjects. Although the females with high pre-drinking P Power scores drank more than those with low scores, drinking decreased the P Power themes. This is of course directly opposite to McClelland et al.'s findings with males. Furthermore, Wilsnack discovered that drinking enhanced the subjects' feelings of womanliness. She concluded that maybe there are definite traditional sex roles and possibly drinking weakens a female's concern about her masculine personality traits which conflict with traditional notions of femininity.

Dependency and Power

In spite of the questionable import of McClelland et al.'s (1972) research for male alcoholics, it is presently the only other theory of alcoholism along with dependency theory. However, it is
possible that these two contrasting theories may merely be at opposite ends of the same psychological dimension. In other words, the dependency theorists seemed to have focused on an intense dependency conflict whereas the power theorists have looked closely at a power conflict, that is, a strong need to be assertively independent. In either case, a need has been thwarted and interfered with by the influence of family patterns of interactions and societal role expectations.

There appear to be many similarities between the dependency and power theories of alcoholism. Both are etiological formulations and therefore provide a personality pattern which should be easy to measure psychometrically. However, there are many other empirical investigations which together provide a multitude of personality characteristics found in alcoholics. In addition, the personality characteristics of dependency and power are not exclusively dominant traits of the alcoholic, but are found in non-alcoholic personalities as well. Both dimensions are shaped by cultural attitudes toward masculinity. Interpersonally, both power and dependency represent general dispositions which direct behaviour towards their respective goals. Power motive pushes the alcoholic individual to have an impact on and influence others. Dependency needs unconsciously direct the alcoholic toward non-reciprocating and nurturant relationships.

An independent facade is part of the alcoholic personality which is an attempt to suppress dependency needs or feelings of weakness. According to the dependency theory alcohol is used to satisfy dependency needs and a masculine self-image whereas in the power theory, it is used as a means of feeling strong and
overcoming feelings of weakness. Moreover, there have been many references to the fact that drinking is a kind of time-out period in which a man cannot be held accountable for his actions because alcohol is a known incompetence producer. According to the power theory, a man can feel powerful and socially irresponsible at the same time after excessive drinking. The dependency theory similarly suggests that drinking allows the man to simultaneously give in to his intense dependency strivings, while indulging in an activity equated with manliness and symbolically acting out his anger and resentment towards his parents.

The primary difference between these two theories seems to be in the methods of formulation. The dependency theory is based mostly on psychoanalytic theoretical notions and only a few empirical studies (Bacon, Barry & Child, 1965; Jones, 1968; McCord & McCord, 1960; and Morrison, 1973). The power theory of alcoholism developed from a group of related empirical studies (McClelland, Davis, Kalin & Wanner, 1972) and it is a social-motive theory. However, the results of two independent studies (Cutter, Key, Rothstein & Jones, 1972; and Key, Cutter, Rothstein & Jones, 1973) do not totally support the original research. In part, these inconsistent and inconclusive findings are a function of differences in samples. Both theories apply only to males in that they have been formulated through research and case studies on male alcoholics. In fact, Wilsnack (1974) has shown that women do not drink to increase their feelings of power or to gratify strong underlying dependency needs. For women, drinking enhances their feelings of womanliness. However
Wilsnack used non-alcoholic college age females in her study and the findings may or may not be applicable to hard core female alcoholics. In a small research project with female alcoholics and non-alcoholic psychiatric female patients, Wilsnack (1973) discovered that the alcoholic subjects drank excessively in order to reduce their feelings of assertive power which were creating a conflict with their need to meet more traditional feminine role expectations. In other words, drinking increased their feelings of womanliness.

Locus Of Control

As an expectancy variable, Rotter's (1966) internal-external focus on control (I-E) represents the perceived causality between action and reinforcement. It is a generalized expectancy in the sense that it operates across a wide spectrum of life situations. Those individuals who have an external locus of control believe that they are not in control of the reinforcement, positive or negative, that follows their actions and that it is really a matter of luck, chance or fate. Contrastingly, individuals with an internal locus of control believe such reinforcement is a result of their own abilities. The locus of control dimension is added to this research because it has often been investigated in relation to the other personality variables and theoretically it complements the power construct. Empirically, I-E and power measure two different aspects of personality. Winter (1973) distinguished the power motive from the sense of internal control of reinforcement, or personal causation. He writes that an internal locus on control strongly suggests autonomy while power seems to be more akin to the
control of the fate of others. This sense of fate-control refers to an expectancy about attaining a goal whereas internal control refers to an expectancy of personally causing many of the outcomes experienced. It is in this area of expectancy that the two constructs are complementary. With regard to an external sense of control of reinforcement, Winter does not believe it produces a need for control or a power motive. In fact, he states that there is little empirical evidence for such a relationship because Rotter's I-E correlates with a Power, Hope of Power and Fear of Power .13, .17 and -.01 respectively. Hence, he concludes that I-E and the power motive are independent.

Joe (1971) has reviewed the research which has investigated the relationship between I-E and personality variables. In summarizing the findings, he states that externals in contrast to internals, seem to be more aggressive, moderately anxious, dogmatic, not trustful and somewhat suspicious of others. They lack self-confidence and insight, exhibit low needs for social recognition and a greater inclination to use primitive ego defense mechanisms, such as projection and introjection. In the area of attempting to control one's environments Joe writes that most studies lend support to the hypothesis that internals show more initiative and effort and can control their impulses better than externals.

With respect to adjustment, he suggests that although evidence is meager, it appears that one's locus of control is changeable and that a change from externally to internally may be an indication of better adaptiveness. Although the relationship between I-E
and adjustment seems to be linear, with externals being more maladjusted, it is equally probable that this relationship is non-linear. In other words, individuals at the extreme ends of the I-E dimension may be more disturbed than persons in the middle ranges. Minton (1972) suggests that one means of investigating this relationship would be to compare seriously maladjusted groups with normal groups. Also, he adds that research has suggested that individuals perform most effectively when they are in situations that are congruent with their generalized expectancies for locus of control. Therefore, for seriously disturbed individuals situational congruency might be reflected by a need to become involved in environmental arrangements which reinforce their belief that what happens to them is beyond their control.

Alcoholism and I-E appear to be related because many of the personality variables associated with externally oriented individuals (Joe, 1971) appear to be found in alcoholics. Also in view of the many problems created by alcoholism in the home, vocational setting and social circle, Minton's thoughts on situational congruency suggest that alcoholics would have a high external locus of control. In other words, the alcoholic's perception of his troubled life could lead to a belief that what happens to him is beyond his control. Furthermore, social learning theory assumes that the situation produces or is composed of cues to which the individual has attached expectancies on the basis of previous experience. These expectancies themselves are determined by the past history of reinforcement with these same cues. Consequently, the alcoholic like the minority group member,
lower-class person, or mentally impaired individual would probably feel quite restricted with regard to their choices in life because of the powerful influence of others. Once again, an external control orientation would be expected in the alcoholic. On the contrary, I-E research with alcoholics has almost consistently shown that they are more internally directed than both normals and psychiatric patients (Distefano, Pryer & Garrison, 1972; Goss & Morosko, 1970; and Gozali & Sloan, 1971). Only the Distefano et al. study concluded that the internal locus of control of the alcoholics may represent an unrealistic or deviant attitude.

Goss and Morosko (1970) tested 200 male and 62 female alcoholic outpatients and found that both groups scored in the internal direction on Rotter's (1966) I-E scale. They explained this unexpected finding as reflecting the possibility that alcoholics do understand the contingency between their behaviour and the preferred source of reinforcement, namely, alcohol. Hence, they have the belief that they are in control. Also, the correlations between the I-E scores and MMPI scales suggested that internality in alcoholics is related to a functional defensiveness whereas externality is related to more anxiety, helplessness and alienation.

Gozali and Sloan (1971) used 55 male alcoholic outpatients and 98 non-alcoholics mates who were comparable in age and social class. The authors discovered that the alcoholics scored in a more internal direction than the control group on Rotter's I-E scale. They also found no significant correlations between the
i-E and MMPI scales. They cautioned against interpreting any findings which suggests that internally oriented persons are necessarily psychologically healthier than externals. Gozali and Sloan concluded that the internality of the alcoholic might be a predisposing factor for addiction since it could lead to a belief in being able to control their drinking. Similarly, Distefano, Pryer and Garrison (1972) found that male alcoholic inpatients scored in a more internal direction than both psychiatric males and males in Rotter's normative sample. Since their disturbed sample consisted primarily of schizophrenic patients, they concluded that extreme positions of the i-E scale may represent deviant and unrealistic perceptions of control.

However, Nowicki and Hopper (1974) provided findings which are not consistent with the results of the above three studies. They found that the locus of control scores of their small samples of alcoholic male inpatients and outpatients and female outpatients were significantly less external than the female alcoholic inpatient group. In fact, the first three groups' mean scores were not significantly different from the normative sample's mean scores. Furthermore, the external scores of the female inpatients correlated positively with greater behavioural dysfunction as measured by a modified Weschler Adult Intelligence Scale and a figure copying test. Since the scores obtained by Nowicki and Hopper were from a new i-E scale, then this in part may account for their different results. This test was the adult form of the Nowicki-Strickland i-E scale for children and is
known as the Adult Nowicki-Strickland I-E. It has been standardized in adults with at least a grade five education. Also, it does not correlate with social desirability and intelligence. Both of these features are important when considering the results using Rotter's I-E scale because it was standardized with college students and has shown a consistent and significant relationship to social desirability responding and to denial of psychopathology (Joe, 1971). Therefore, comparing adult alcoholics with college students on Rotter's I-E scale and knowing that alcoholics are typically defensive (Armstrong & Hoyt, 1963; Blum, 1966; Goss & Morosko, 1970; Lawlis & Rubin, 1971; and Lisansky, 1960), warrants interpreting any findings with much caution.

In summary, the findings of studies investigating the alcoholics' locus of control of reinforcement and/or the relation of this control dimension to psychopathology are inconclusive. The consistent finding of internality among alcoholics in three of the studies (Distefano et al., 1972; Goss & Morosko, 1970; and Gozali & Sloane, 1971) have been based on Rotter's I-E scale scores. The contradictory results of Nowicki and Hopper's (1974) research is based on the use of the ANSIE scale and very small samples. However, the ANSIE does appear to be a better scale because it was constructed, in part, to correct the weaknesses inherent in Rotter's I-E scale. Whether alcoholics have an internal sense of control and whether externality or internality in alcoholics reflects maladjustment are questions yet to be conclusively answered.
Statement of Purpose

A multitude of characteristics have been provided by those studies which were primarily interested in discovering general personality traits of the alcoholic. This list includes dependency, ambivalence, egocentricity, depression, hostility, inferiority, passivity, masochism, suspicion, chronic tension, sociopathy, sexual inadequacy and homosexuality. Many of these traits have been found to distinguish alcoholic from non-alcoholic personalities. Moreover, impulsivity, antisocial and rebellious acting out, depression and excessive guilt or remorse appear to be the most common distinguishing traits discovered by the studies reviewed. However, there are two critical weaknesses of these studies: (1) none of the findings were linked to theory thus reducing their clinical importance and, (2) the traits discovered in any one study were limited by the psychometric instrument used.

The research involving the personality dimension of dependency pointed out that although dependency is a necessary factor in alcoholism it is not a sufficient cause of alcoholism. Other personality traits and environmental circumstances also play an important role in the development of alcoholism. However, only one empirical study (Morrison, 1973) used direct measures of dependency with its alcoholic and non-alcoholic subjects. In both the theoretical and empirical research, the subjects were males. The research on the power motive is meager. Although the McClelland et. al.'s (1972) investigation provides a wealth of data suggesting that an intense and ungratified personalized power motive is the primary cause of excessive drinking, the other
two studies (Cutter et. al., 1972; and Key et. al., 1972) do not fully support this conclusion. Consequently, the results in this area are inconsistent and inconclusive. The research with locus of control of reinforcement is also conflicting. Most studies show that the male alcoholics, contrary to expectations based on social learning theory, are more internally oriented than non-alcoholic males. However, one study has shown no significant difference between I-E scores of male alcoholics and some female alcoholics and non-alcoholics and that the external scores among one female alcoholic group were related to psychopathology. This study is also significant because it used an I-E scale with norms based on a non-college population.

The purpose of the present research is to correct the inconclusiveness of the above-mentioned results. Although the hypotheses have been based on previous research, certain modifications have been made. For example, the hypotheses are linked directly to theory, empirical measurements are direct and more than one psychometric test has been used to measure the power and dependency dimensions. In addition, corrected or revised forms of the I-E Test and power motive scoring system will be used. Therefore, the following hypotheses are made:

(1) It is predicted that on the personality dimension of dependency, both the remitted and unremitting alcoholic group mean scores on the PPT will be higher than the control group mean score.

(2) It is predicted that on the psychological dimension of power motivation, the unremitting alcoholic group's mean
Hope of Power score will be higher than the remitted alcoholic and control groups' mean Hope of Power scores.

(3) It is predicted that on the locus of control of reinforcement personality dimension, the unremitted alcoholic group's mean score will be higher or in a more external direction than the remitted and control groups' mean scores.

As a secondary purpose, an attempt will be made to discover any patterns in the test responses of the groups which may discriminate among the unremitted alcoholic group, the remitted alcoholic group and the non-alcoholic control group by using nine different measures from four psychometric instruments.
CHAPTER II

METHOD

Subjects

Alcoholic Sample: The literature on personality characteristics of alcoholics has focused on male alcoholics; therefore, only male alcoholics were selected from the files of Connaught Clinic. The Clinic is a two or three week out-patient treatment facility for alcoholics located in Windsor, Ontario. The diagnosis of alcoholism was deduced from a questionnaire which is administered to every patient who attends this Clinic. The criteria used for this diagnosis included at least ten years of problem drinking; a drinking pattern described as steady, episodic or bender, at least one of the following reported behaviours present – morning drinking, black-outs or police arrests due to alcohol consumption; and complaints of problems due to alcohol in any one of the following areas of functioning – health, social and economic. No subjects suffered from organic damage or psychotic thought processes.

Originally 100 letters (see Appendix A) were sent out to graduates of the Connaught Clinic Program. Since the response to these letters was poor, the Experimenter telephoned each alcoholic to whom the letter was sent. As a result the Experimenter ended up with 54 subjects in the alcoholic sample. Upon completion of testing these subjects, the sample was divided into remitted and unremitted groups. The criterion for the former was at least
twelve months sobriety since leaving the Connaught Clinic program and all other subjects were placed into the latter group. Information about length of sobriety was gathered from the follow-up program at Connaught Clinic and from an information sheet (see Appendix B) filled out by each subject at the time of testing. Subsequently, the remitted group had 23 subjects and the unremitting group had 31 subjects.

The average age for the remitted alcoholic group was 43.5 years. The age range was 33 to 59 years and the median age was 43 years. This group's mean number of years of formal education was 10.3 years. The range and median were 7 to 14 and 10.3 years of education respectively. The mean age for the unremitting alcoholic group was 42.3 years. The age range was 26 to 59 years and the median age was 43 years. The unremitting alcoholic group's mean number of years of formal education was 10.0 years. The range and median were 4 to 17 and 10.2 years of education respectively. Social class was measured by Hollingshead's Two-Factor Index of Social Position (see Appendix C for calculations) which has been described by Myers and Dean (1968). As a result, 91.30 and 90.32 per cent of the subjects in the remitted and unremitting alcoholic groups respectively were classified as belonging to the lower socioeconomic class.

Non-Alcoholic Sample: Initially it was hoped to obtain 50 males to make up a control group. The criterion for non-alcoholism was no problem drinking according to self reports. It should also be added that there was probably a natural desorption process going
on in that anyone who may have been a problem drinker would not have shown up for testing because of fears associated with participating in such a research project. In addition, an attempt was made to match the non-alcoholic subjects as close as possible to the alcoholic subjects on the following variables: sex, age and socioeconomic background. Since the Experimenter worked at the Connaught Clinic, he knew that most of the alcoholics who attended this treatment facility were between the ages of 30 and 50 years and belonged to the lower social class. Therefore, the control subjects had to be males who were at least 30 years of age and who were from the lower social class.

Approximately 250 letters (see Appendix D) were distributed in ten different industrial plants in Windsor. These letters were posted or handed out individually by individuals contacted by the Experimenter. Most of these individuals were members of Local 195 UAW who had volunteered to help, following a presentation by the Experimenter at a general meeting. However, the response to this method of soliciting subjects was extremely poor. Consequently, the Experimenter contacted the president of Local 210 of the Service Employees Union. Initially, the Experimenter discussed his research project with the executive of this union and as a result had letters (see Appendix E) posted at the various hospitals and parochial schools in Windsor and personally asked for volunteers at two different meetings. Subsequently, the Experimenter obtained 24 members from Local 210 and nine members from Local 195.

The final control group consisted of 30 subjects since two test protocols were excluded because of incomplete tests. This group's
average age and mean number of years of formal education were 40.5 and 11.6 years respectively. The age range was 22 to 62 years and the median age was 37.5 years. The range for number of years of formal education was 7 to 18 years and the median was 11.9 years. According to the Two-Factor Index formula (see Appendix C for calculations), 86.67 per cent of the subjects in this group belonged to the lower socioeconomic class. The control group consisted of 15 moderate drinkers, 13 light drinkers and two non-drinkers based on the information sheets (see Appendix F) completed by each subject at the time of testing.

Research Instruments:

In order to obtain several different measurements of the personality characteristics of dependency and power, especially within the alcoholic groups, two projective and two self-report tests were used. The projective tests were included in order to assess the more unconscious aspects of dependency and power.

Revised Picture Preference Test (PPT) for Addictiveness: The original PPT was developed by Cowan (1967) who constructed ten personality trait-scales which he believed characterized the alcoholic's personality functioning. Cowan predicted and found that alcoholics scored higher on these trait-scales than neurotic or normal individuals. Morrison (1973) developed the revised PPT by removing some of the original scales, modifying others and constructing two new scales which were believed to characterize further the alcoholic's personality. The revised PPT is composed of the following seven personality trait-scales: (1) Oral Dependence;
(2) Masochistic Tendencies; (3) Infantile Need for Security With Resultant Regressiveness and Passivity; (4) Antisocial Impulses; (5) Magical Omnipotence Fantasies; (6) Impulsiveness With Low Tolerance for Frustration; and (7) Avoidance of Intimacy. Five of the seven traits-scales successfully discriminated the alcoholics from normals in the Morrison study. Although more research is needed to show the validity and reliability of this test in measuring the addictive personality traits of the alcoholic, its usefulness in the present study was that it is the only projective assessment of unfulfilled dependency needs, dependency conflicts, and their psychological derivatives.

The revised PPT for addictiveness consists of 144 picture-pairs (see Appendix G). The two pictures of each pair are arranged side by side on a slide and presented to the subjects for simultaneous viewing. The subjects are asked to choose either the picture marked A (on the left) or the picture marked B (on the right). Since one picture of each pair has been chosen to represent an aspect of one of the seven traits measured by the test, the subject's choice reflected the presence or absence of such an underlying addictive characteristic. All 144 picture-pairs are presented by means of a slide projector at ten second intervals and the subjects record their answers on standard IBM test examination sheets. Although the complete revised PPT was administered to all subjects, only two trait-scales were used in the analysis of the data. The Oral Dependence scale was included because it is a direct measure of dependency needs. The Antisocial Impulses scale was used because it had the highest
Kuder-Richardson reliability co-efficients for each group of subjects in the Morrison study and antisocial tendencies have consistently been part of the alcoholic personality in previous research.

**Thematic Apperception Test (TAT) Pictures:** McClelland, Davis, Kalin, and Wanner (1972) used sets of TAT pictures to measure the power motive in their fraternity and bar studies. In their bar studies with older blue collar males, the TAT pictures were chosen to list various themes related to power motivation; namely, authority impact, exploitative sex, aggression and prestige supplies. The present study used four TAT pictures, three of them selected from the McClelland et. al. series and the fourth was chosen from Appendix III of Atkinson's (1958) book, *Motives in Fantasy, Action and Society*, (see Appendix H for the descriptions of the pictures). The pictures were mounted on two by two inch positive slides. Winter's (1973 Appendix I) revised n Power scoring system was used in scoring the TAT stories for Hope of Power and Fear of Power.

This scoring system requires the scorer to first look for any evidence of concerns for power in each story. Several criteria are given for scoring such Power Imagery. If Power Imagery is present, the scorer continues by scoring certain subcategories which elaborate the Power theme(s). Each of the 10 subcategories have their respective criteria. If there is no Power Imagery, the scorer proceeds to the next story. Power Imagery and each subcategory that is scored are counted as +1. The total n Power score for a story is the sum of scores for Imagery and subcategories. The maximum score for a story is +11. If there is no Power Imagery, then the story is scored 0. The actual Hope of Power and Fear of Power scores are derived from
classifying a story as either Hope or Fear. The additional discrimination for Fear is made if there is any part of the story which meets one of three criteria given by Winter. If there is no evidence for classifying the story as Fear then it is classified as Hope. It should be noted that no additional point is given for these classifications. Therefore, the Hope of Power or Fear of Power scores equal the sum of the scores classified as Hope or Fear respectively.

The reliability correlation coefficients of this system as reported by Winter (1973) for several different research projects ranges from .17 to .56 and these studies used either two, three, or four administrations. Winter argued that although the reliability figures are low, the validity of the TAT measures is not reduced significantly. He stated that the intensity of a motive alternates, that the motive itself can change over time and that changes in the testing situation are three important factors to consider when discussing the reliability of TAT measures.

The TAT picture stories were coded blindly by the Experimenter whose agreement with the precoded practice materials in Winter's (1973, Appendix I) book, The Power Motive, was rho = .733, .896 and .949 for the last three sets respectively. The Category Agreement on Power Imagery for these three sets of practice materials was .892, .914 and .930 respectively. The Experimenter also had another judge code the stories of 24 subjects. The coefficient of correlation (rho) for the n Power scores was .904 and the Category Agreement was .947 for Power Imagery.

Revised Personality Research Form (PRF): Jackson's (1967) PRF was used because it focused primarily on areas of normal functioning rather than
psychopathology and the trait-scales lend themselves easily to personality research. In fact, Jackson (1967) provided substantial evidence in the test manual for the discriminant validity, that is, the conceptual independence, of each trait-scale. Hence, five scales were chosen for the present study — Autonomy, Succorance, Nurturance, Dominance and Achievement. It was hoped that the first three scales would afford a measure of dependency and the first and fourth scales a measure of power. The Achievement scale merely provided filler items. Jackson reported reliability data from four studies for the twenty scales in his tests. In the first study, the test-retest reliability coefficients for the Autonomy, Succorance, Nurturance, Dominance and Achievement scales of form AA were: .77, .84, .82, .88 and .80 respectively. In the other three studies, the coefficients ranged from .68 (Nurturance) to .88 (Dominance). The 100 items of these five scales are listed in a revised-question booklet in the same order they are found in the complete test. (See Appendix I) A standard IBM answer sheet was used by the subjects to record their true-false answers. The responses for each scale were scored in the keyed direction and then summed in order to provide the data to be used in the statistical analysis.

Adult Nowicki-Strickland I-E Scale: Since Rotter's (1966) I-E Scale was standardized with college students, the adult Nowicki-Strickland I-E (ANSIE) developed by Nowicki and Duke (1973) was used. The authors provided evidence that their scale has good discriminant validity because it does not correlate with social desirability or intelligence and good construct validity in that it compares favourably with Rotter's scale in predicting behaviour based on social learning.
theory. They stated that the test-retest reliability coefficient is .83 for the ANSIE over a six week interval. The ANSIE consists of 40 items (see Appendix J) which are answered either yes or no and which are scored in an external direction. The reading level of the items is no higher than the fifth grade. A standard IBM answer sheet is used to record the subjects' responses.

Procedure

All subjects were tested in groups. With the exception of three control subjects, the alcoholics were tested separately from the controls. There were nine testing sessions for the alcoholics and five for the control subjects. Although there were several different testing sessions and five different places in which testing took place, the same procedure was used with all subjects. At the beginning of each session the Experimenter explained the nature of the research project (see Appendix K) and answered any questions. Each subject was then given a package containing the test materials and a pencil and told to remove all materials from the package and begin to fill out the information questionnaire. (See Appendices B & F.) Following this the subjects were told that Picture Test 1 (PPT) would be the first test to be completed and that this test measured an individual's preferences. The following instructions were read to the subjects as they looked at their IBM answer sheet:

Your task is simply to choose which of the two pictures you like better by blackening the space under A on the answer sheet if you like the left-hand picture better or under B if you like the right-hand picture better. Now here is a practice pair of pictures. (Sample item X is shown) Blacken the space under A on the answer sheet if you like the left-hand picture of the lamp or under B if you prefer the right-hand picture of the tree.
Each pair of pictures will be shown for ten seconds. You should mark your choice within this time period. Sometimes you will find it hard to choose one or the other pictures. Please make a choice for every pair of pictures even if it is difficult to do so. Are there any questions?

After this test, the subjects were told that Picture Test II (TAT - Hope & Fear) was the second test to be administered. The Experimenter read the following instructions to the subjects while the subjects looked at the instructions written on the first page of this test.

This is a test of imagination. I am going to show you some pictures, one at a time for five minutes. Your task is to make up as dramatic a story as you can for each picture. People think up all sorts of different things to the picture but I am interested in your own ideas. In each story, tell what has led up to the event shown in the picture, describe what is happening at the moment, what the character(s) are feeling and thinking and then give the outcome. Please write your thoughts as they come to your mind. Remember, there are four things to remember when writing your story: tell what has led up to the event shown in the picture, describe what is happening at the moment, what the character(s) are feeling and thinking and then give the outcome. Are there any questions?

Following the completion of this test, the subjects were given a short break. Then they were told to look at the instructions on the first page of the test called the Social Reaction Inventory (ANSIE) while the Experimenter read the instructions as follows:

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a question. Please respond to each question by placing either a Yes or a No in the appropriate place on the answer sheet which has been given to you. If your answer is Yes, then blacken the space under A on your answer sheet; if your answer is No, blacken the space under B on your answer sheet. Be sure to give the answer which actually represents your belief.
Obviously there are no right or wrong answers. Please answer the items carefully but do not spend too much time on any one item. Be sure to answer every item. Also try to respond to each item independently; do not be influenced by your previous answers. Are there any questions?

Following these instructions, the subjects were told to go on with the last test, the Self-rating Inventory (PRF) once they had completed the Social Reaction Inventory. They were also reminded to read the instructions before starting this last test.

At the end of each testing session, the subjects were told to place all materials back into the packages. It was also mentioned that if they would like to receive a summary statement of the research findings, then they should sign their name and address to the sheet about to be passed around. Once all subjects had left, the Experimenter coded each package according to the group, that is, remitted, unremitted, or controls and date and place of testing. It should be noted, however, that many of the alcoholic subjects were known to the Experimenter because of his staff position in the Connaught Clinic treatment program.
CHAPTER III

RESULTS

According to previous research findings, three hypotheses were made:

1. The remitted and unremitted alcoholic groups' mean scores on Oral Dependency (PPT) would be higher than the control group's mean score;

2. The unremitted alcoholic group's mean score on Hope of Power (TAT) would be higher than the remitted alcoholic and control groups' mean scores; and

3. The unremitted alcoholic group's mean Internal-External locus of control (ANSIE) score would be higher or in a more external direction than the remitted alcoholic and control groups' mean scores.

In order to test these predictions, three single factor analyses of variance were completed. The dependent variables in each analysis were the observed scores for each subject in each of the three groups; namely, controls, remitted alcoholics, and unremitted alcoholics on the variable being measured. The group mean scores and standard deviations for all nine personality variables, being investigated in this study, are shown in Table 1.

The results of the single factor analyses of variance are provided in Table 2. As can be seen, none of the F values were significant at either the .01 or .05 levels. Therefore, it must be stated that there
TABLE 1

Group Mean Scores on the Personality Traits Measured

<table>
<thead>
<tr>
<th>Trait</th>
<th>Controls</th>
<th>Remitted Alcoholics</th>
<th>Unremitted Alcoholics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Locus of control</td>
<td>12.00</td>
<td>5.13</td>
<td>9.73</td>
</tr>
<tr>
<td>Oral dependency</td>
<td>7.57</td>
<td>2.05</td>
<td>7.09</td>
</tr>
<tr>
<td>Antisocial Impulses</td>
<td>3.10</td>
<td>2.25</td>
<td>3.43</td>
</tr>
<tr>
<td>Hope of Power</td>
<td>2.57</td>
<td>2.97</td>
<td>2.52</td>
</tr>
<tr>
<td>Fear of Power</td>
<td>1.03</td>
<td>1.73</td>
<td>1.26</td>
</tr>
<tr>
<td>Autonomy</td>
<td>7.47</td>
<td>3.01</td>
<td>7.70</td>
</tr>
<tr>
<td>Nurturance</td>
<td>13.03</td>
<td>2.98</td>
<td>14.13</td>
</tr>
<tr>
<td>Succorance</td>
<td>8.83</td>
<td>3.64</td>
<td>8.78</td>
</tr>
</tbody>
</table>

Note. N = 30, 23 and 31 for Controls, Remitted Alcoholics and Unremitted Alcoholics respectively.
## Table 2

Summary of Analyses of Variance for Control, Remitted and Unremitted Subjects' (Ss) Scores on the Nine Traits Measured

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td><strong>Locus of Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>67.429</td>
<td>33.714</td>
<td>1.670</td>
<td>&lt; 0.193</td>
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<tr>
<td>Within Ss</td>
<td>81</td>
<td>1635.273</td>
<td>20.189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>1702.702</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td><strong>Oral Dependency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>3.701</td>
<td>1.851</td>
<td>0.358</td>
<td>&lt; 0.705</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>418.870</td>
<td>5.171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>422.571</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Hope of Power</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>29.475</td>
<td>14.737</td>
<td>1.775</td>
<td>&lt; 0.174</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>672.525</td>
<td>8.303</td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td>83</td>
<td>702.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fear of Power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>4.717</td>
<td>2.359</td>
<td>0.858</td>
<td>&lt; 0.573</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>220.176</td>
<td>2.718</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
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<td>224.893</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Source</td>
<td>df</td>
<td>SS</td>
<td>MS</td>
<td>F</td>
<td>p</td>
</tr>
<tr>
<td>-----------------</td>
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</tr>
<tr>
<td><strong>Antisocial Impulses</strong></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>6.284</td>
<td>3.142</td>
<td>0.476</td>
<td>&lt; 0.629</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>534.288</td>
<td>6.596</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>540.572</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
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</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>8.385</td>
<td>4.192</td>
<td>0.369</td>
<td>&lt; 0.698</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>919.175</td>
<td>11.348</td>
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<tr>
<td>Total</td>
<td>83</td>
<td>927.560</td>
<td></td>
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<tr>
<td><strong>Dominance</strong></td>
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</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>0.809</td>
<td>0.404</td>
<td>0.024</td>
<td>&lt; 0.977</td>
</tr>
<tr>
<td>Within Ss</td>
<td>81</td>
<td>1364.477</td>
<td>16.845</td>
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<tr>
<td>Total</td>
<td>83</td>
<td>1364.286</td>
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<tr>
<td><strong>Nurturance</strong></td>
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<tr>
<td>Between Ss</td>
<td>2</td>
<td>25.336</td>
<td>12.668</td>
<td>1.292</td>
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<tr>
<td>Within Ss</td>
<td>81</td>
<td>794.414</td>
<td>9.808</td>
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<td>Total</td>
<td>83</td>
<td>819.750</td>
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<tr>
<td><strong>Succorance</strong></td>
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</tr>
<tr>
<td>Between Ss</td>
<td>2</td>
<td>6.518</td>
<td>3.259</td>
<td>0.238</td>
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<td>Within Ss</td>
<td>81</td>
<td>1107.434</td>
<td>13.672</td>
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<tr>
<td>Total</td>
<td>83</td>
<td>1113.952</td>
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</table>
is no significant difference between group mean scores on any of the personality variables measured. Consequently, the results of the analyses of variance do not support the three hypotheses postulated after reviewing the research literature on alcoholism and dependency, power, and internal-external locus of control of reinforcement.

However, as indicated in Table 1, the unremitted alcoholic group mean score on the Hope of Power variable is greater than the control and remitted alcoholic groups' mean scores which is in the direction predicted by the second hypothesis. Therefore, a one-tailed t-test was completed using the unremitted alcoholic group's mean score and the group mean score of the control and remitted alcoholic subjects combined. The result of this t-test (1.87, 82 df, p < .05) was significant which indicates that the second hypothesis is supported by this statistical test.

Table 3 presents the Pearson correlation coefficient matrix of 10 variables across 84 subjects. This matrix was computed using the Statistical Package for the Social Sciences (SPSS) computer programme (Nie, Bent, & Hull, 1970). This was done to determine whether there were any trends between severity of alcoholism (the tenth

In addition, as shown in Table 1, the control group's mean score on the locus of control variable was larger than the remitted or unremitted alcoholic groups' mean scores. While, such a difference in direction of locus of control scores was not predicted, a one-tailed t-test was completed between the combined alcoholic subjects' scores and the control subjects' scores to afford comparability with previous research. The t-observed value was significant (1.613, 82 df, p < .06).
<table>
<thead>
<tr>
<th>Group</th>
<th>I-E</th>
<th>Dependency</th>
<th>Antisocial Impulses</th>
<th>Hope of Power</th>
<th>Fear of Power</th>
<th>Autonomy</th>
<th>Dominance</th>
<th>Nurturance</th>
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<td>I-E</td>
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<td>Fear of Power</td>
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<tr>
<td>Dominance</td>
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<td></td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
*** p < .001
**** p < .0001
variable) and any of the nine personality variables measured. The
ten variable was obtained by assigning values of one, two, and
three to the control, remitted, and unremitting alcoholic subjects
respectively. The matrix also provides useful correlation information
about the amount and direction of relationship between any two
variables. This information was important because the four PRF
scales and the Antisocial Impulse Scale (PPT) were added without
knowing their relationship with the measures of dependency and power
needs.

As can be seen in Table 3, none of the coefficients are
significant between the severity of alcoholism variable (Group)
and any of the remaining nine personality variables. However,
there is a trend between the severity of alcoholism and Hope of
Power ($r = .179$, $p < .10$). Although it is not a strong relationship,
it does indicate that as Hope of Power scores increase so does the
severity of alcoholism. At the onset of this research, the
relationships between the four PRF scales and the personality
dimensions of power and dependency were not known. In Table 3,
Nurturance is the only PRF scale which shows a significant relation-
ship to dependency ($r = -.238$, $p < .05$) as measured by the Oral
Dependence scale of the revised PPT. With regard to the two power
measures a trend of relatedness is indicated between Autonomy and
Hope of Power ($r = .19$, $p < .10$) and Autonomy and Fear of Power
($r = .196$, $p < .10$). Other important correlations involving
power include the trend between Antisocial Impulse and Hope of
Power ($r = .201$, $p < .10$) and a significant relationship between
Antisocial Impulse and Fear of Hope ($r = .282$, $p < .01$). Antisocial Impulse also correlates significantly with Autonomy ($r = .366$, $p < .001$). Finally, it can be seen that within the PRF scales, there is a significant correlation between Autonomy and Nurturance ($r = -.407$, $p < .001$) and Autonomy and Succorance ($r = -.559$, $p < .001$). Although not significant, there is a weak relationship between Nurturance and Succorance ($r = .194$, $p < .10$).

In order to test the discriminatory power of the nine personality variables, a discriminant function analysis was used to determine the group which each subject is most like. This method uses the set of nine measurements on each subject in each of the three groups to determine whether or not the groups can be distinguished by these measurements. It is an effective mathematical method of classifying subjects since it determines group assignment by using weights that maximize the differences between the means of the groups on each variable. In other words, these weights or coefficients for the discriminant function are chosen so that the ratio of the between means of groups sum of squares to within groups sum of squares is a maximum (Garrett, 1943). Such maximization has the effect of not only spreading the means of the groups apart but also reducing the scatter of the individual points about their respective group means. Thus, the overlap in the distributions of scores for the three groups is reduced.

The UCLA Biomedical (BMD) stepwise Discriminant Function Analysis computer programme (Dixon, 1973) was run first. This
programme selects each personality variable, one at a time, according to that variable's effectiveness in discriminating between the three groups. These variables are selected in a decreasing order of effectiveness. The information provided in the printout, which is relevant for this study's purpose, is the approximate F values, which were used to determine the significant levels of the discriminant functions, and the final classification of subjects into three groups. The approximate F value is the ratio found by dividing the variance between group means on the discriminant function by the pooled within groups variance on the discriminant function.

The order of selection of variables and the corresponding approximate F-values are presented in Table 4. As can be seen, the Hope of Power personality variable was selected first. This indicates that the discriminant functions obtained from the subjects' weighted scores on this variable provided the best discrimination between groups. However, the approximate F-value of 1.775 is not significant and it is concluded that the Hope of Power variable could not discriminate effectively between the three groups. The second variable selected was I-E and the approximate F-value of 1.733 for the discriminant function obtained from the subjects' weighted scores on the I-E and Hope of Power variables combined is not significant. Therefore, it is concluded that this combination of variables could not discriminate effectively between the three groups. Similarly, each of the remaining six variables selected and combined with the previously selected
TABLE 4

Summary Table for Stepwise Discriminant Function Analysis Using Control, Remitted and Unremitted Subjects Scores on Nine Personality Variables

<table>
<thead>
<tr>
<th>Step Number</th>
<th>Variable Selected</th>
<th>Number of Variables Included</th>
<th>Approximate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hope of Power</td>
<td>1</td>
<td>1.775</td>
</tr>
<tr>
<td>2</td>
<td>Locus of Control</td>
<td>2</td>
<td>1.733</td>
</tr>
<tr>
<td>3</td>
<td>Fear of Power</td>
<td>3</td>
<td>1.667</td>
</tr>
<tr>
<td>4</td>
<td>Nurturance</td>
<td>4</td>
<td>1.454</td>
</tr>
<tr>
<td>5</td>
<td>Antisocial</td>
<td>5</td>
<td>1.325</td>
</tr>
<tr>
<td>6</td>
<td>Succorance</td>
<td>6</td>
<td>1.181</td>
</tr>
<tr>
<td>7</td>
<td>Autonomy</td>
<td>7</td>
<td>1.151</td>
</tr>
<tr>
<td>8</td>
<td>Dependency</td>
<td>8</td>
<td>1.037</td>
</tr>
</tbody>
</table>

F-ratio calculated from the variance between group means on the discriminant function divided by the pooled within groups variance.
variables resulted in approximate F-values which were not significant. Consequently, no combination of variables could effectively discriminate between groups. The actual classification of subjects was 41 out of 84 or 48.81 per cent placed correctly.

The BMD Discriminant Function Analysis (Dixon, 1973) computer programme for all nine variables was run next because only eight variables were used in the stepwise discriminant function analysis. The relevant information on the printout is the generalized Mahalanobis D-square value and the actual classification of subjects into three groups. The Mahalanobis D-square value is used as a chi-square value to determine whether there is any significant differences between the composite means used in the discriminant functions. As a result, the Mahalanobis D-square was 18.331 and with 18 degrees of freedom, it was not significant. Therefore, the combination of these nine variables could not effectively discriminate between groups. The actual classification of subjects was 44 out of 84 or 52.38 per cent placed correctly.

A SPSS stepwise regression analysis was run, using severity of alcoholism as the criterion or dependent variable and the nine personality measures as the independent variables, to determine the amount of variance within subjects on the dependent variable accounted for by each of the personality measures. A summary table of the results of this analysis is reported in Table 5. As can be seen, none of the R-square values were large, in fact, only 11 per cent of the variance was accounted for by seven of the independent variables combined. Even the numerical values in the
<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>R-Sq. Change</th>
<th>B</th>
<th>Standard Error of B</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope of Power</td>
<td>.032</td>
<td>.032</td>
<td>.048</td>
<td>.034</td>
<td>2.015</td>
</tr>
<tr>
<td>Fear of Power</td>
<td>.051</td>
<td>.019</td>
<td>-.112</td>
<td>.061</td>
<td>3.381</td>
</tr>
<tr>
<td>Antisocial Impulses</td>
<td>.064</td>
<td>.013</td>
<td>.045</td>
<td>.044</td>
<td>1.060</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>.078</td>
<td>.014</td>
<td>-.030</td>
<td>.022</td>
<td>1.912</td>
</tr>
<tr>
<td>Succorance</td>
<td>.086</td>
<td>.008</td>
<td>.048</td>
<td>.031</td>
<td>2.349</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.108</td>
<td>.022</td>
<td>.049</td>
<td>.037</td>
<td>1.721</td>
</tr>
<tr>
<td>Oral Dependency</td>
<td>.113</td>
<td>.005</td>
<td>-.031</td>
<td>.045</td>
<td>0.453</td>
</tr>
</tbody>
</table>

(Constant)\(^1\)

\(^1\)represents point at which regression line intersects with Y-axis.

Note. N = 84 which includes 30 controls, 23 remitted and 31 unremitting alcoholics.
B column, which indicate how much change in the dependent variable is associated with each unit of change in the independent variable when the other variables in the regression analysis are held constant, were all non-significant. As can be seen, the greatest degree of association was between Fear of Power and the dependent variable. In other words, one unit of change in Fear of Power resulted in a reduction of severity of alcoholism of .11 units. However, it must be concluded from the results of the multiple regression analysis, that the personality variables could not predict severity of alcoholism in this sample. Some other variables, not investigated in this study, are accounting for the variation on the severity of alcoholism variable.
CHAPTER IV

DISCUSSION

The present study attempted to obtain several psychometric measures of the personality dimensions of dependency, power, and internal-external locus of control with the expectation of being able to differentiate unremitted alcoholics, remitted alcoholics, and non-alcoholic controls. An intense dependency need has been a major personality variable associated with alcoholism in males according to many theoretical views (Blum, 1960; Fenichel, 1945; Knight, 1937; and Lisanski, 1960) and empirical studies (Bacon, Barry & Child, 1965; Bacon, 1974; Jones, 1968; McCord & McCord, 1960; and Morrison, 1973). More recently, the power motive, that is, a strong need to control, influence, or have an impact on others, combined with a low level of inhibition has been postulated to be a major factor in heavy drinking and alcoholism in males (McClelland, Davis, Kallin, & Wanner, 1972).

With regard to the locus of control, social learning theory (Rotter, 1966) suggested that the history of reinforcement for any individual, that is, how the individual has perceived the causality between his actions and subsequent reinforcements, determines the extent to which that individual believes he is in control or at the mercy of fate. Accordingly, it is assumed that alcoholism and the resulting difficulties it creates financially, vocationally,
and socially for the alcoholic, would leave the alcoholic with the belief that much of what happens to him is beyond his control. In other words, the alcoholic should be an externally-oriented individual. However, research almost consistently has found the opposite to be true, namely, that alcoholics are internally-oriented (Distefano, Pryer & Garrish, 1972; Goss & Morosko, 1970; and Gozali & Sloam, 1971). The only exception has been the findings of Nowicki and Hopper (1974).

The results of the present study indicated that the dependency measures were not distinguishing traits among the three groups. However, one of the power measures, Hope of Power, was found to be a differentiating characteristic between the groups. Although the difference between the mean scores of the alcoholic groups combined and the control groups on the locus of-control (L-E) personality dimension only approached significance, this finding was important because it was consistent with previous research trends. In the remainder of this chapter, the findings vis-a-vis power, dependency, L-E and the Personality Research Form (PRF) scales will be discussed individually. Following this an attempt will be made to synthesize the interpretations resulting from the results concerning power, dependency, and alcoholism. Finally, suggestions for future research will be given.

With regard to the power dimension, there is evidence that the Hope of Power personality variable can distinguish unremitting alcoholics from remitted alcoholics and non-alcoholic controls. The unremitting alcoholic's mean score on this variable was
significantly greater than the combined remitted and control groups' mean score. In addition, there was a positive but weak correlation between Hope of Power and severity of alcoholism. Although this correlation did not reach an acceptable level of significance, it did indicate that the need to be powerful increased as the severity of alcoholism increased among the subjects. Furthermore, although none of the personality variables were able to significantly discriminate between the three groups, the Hope of Power variable provided the best separations between composite group means because it was selected first in the stepwise discriminant function analysis.

Therefore, the Hope of Power variable was consistently associated with greater severity of alcoholism and the unremitting alcoholics had the most serious problem with alcohol. From these findings it can be concluded that those alcoholics who have not been able to change their drinking habits, that is, control them to the point of sobriety, have a higher need for power than the sober alcoholics and controls. Such a power motive can be described as a strong need to control, influence, or have an impact on another person, group or society-at-large without concern about the benefit of such actions for others and without doubt about one's ability to exert such power.

The present study's results with the Hope of Power variable are consistent with the findings of McClelland, Davis, Kalin, and Wanner (1972), and Winter (1973). Winter found that Hope of Power showed a significant positive correlation with excessive liquor drinking among male college students and upper-middle class
executives. McClelland et al., concluded from their extensive studies that an intense need for personalized power (p Power) was the major personality predisposition in heavy drinking males. It should be mentioned that Winter reported a significant positive correlation between his Hope of Power scores and McClelland et al.'s p Power scores (r = .74, p < .01).

One explanation for the unremitting alcoholics' higher need for personalized power can be extrapolated from McClelland et al.'s research. They found that alcohol consumption increased the p Power scores among males with a history of excessive drinking by a significantly greater margin than it did for those males with light or moderate drinking histories. In other words, males who have a history of excessive drinking and strong personalized power needs and who act out these needs through excessive drinking, in turn, increase their p Power needs even more. Within the three groups in the present study, both the remitted and unremitting alcoholics have histories of heavy drinking. However, the remitted alcoholics had been sober for at least a year, while the unremitting alcoholics were still drinking. Therefore, it appears that continued alcohol consumption is one contributing factor to the higher Hope of Power scores within the unremitting group.

A second interpretation for this finding comes from Winter (1973) and McClelland et al.'s (1972) statements and investigations of the relationship between an individual's need for power and his expectancies of fulfilling this need. Winter suggested that males who have a strong power motive and who are prevented from getting real power in a society because of class or other barriers, may turn
to drinking, sex, and impulsive and aggressive actions. McClelland et. al. referred to the research by Jessor, Graves, Hanson and Jessor (1968) who found that drinking, like any other form of social deviance, is produced by the lack of real opportunities in life on the one hand, and lack of fulfillment of personal goals on the other. More specifically, Jessor et. al. found a significant association between heavy drinking and lower socioeconomic class. Lower social class in the community was one measure of lack of real opportunities in their study. In order to determine whether there was a similar correlation between drinking and lack of fulfillment of personal goals for the subjects in their study, McClelland et. al. measured the relationship between expectancy of recognition and help and drinking. They found that males who expected less recognition and help drank the most.

It should be mentioned that the subjects used were primarily upper, lower and lower-middle class males. These authors explained their results as indicating that individuals with high personalized power motives also probably had high expectancies for recognition and help. However, if they drank excessively, they were denied the very things desired. Consequently, their resulting feelings of frustration would lead to more drinking which in turn increased their personalized power needs.

In the present study, since all three groups had similar lower socioeconomic backgrounds, it might be inferred that lack of real opportunities existed for many of the subjects. However, only the unmotivated alcoholic subjects had the problem of uncontrolled drinking. Therefore, these subjects may have been experiencing the frustrations resulting from not being able to gratify their personal goals because
of excessive drinking and lower socio-economic class position, and consequently drank more. This in turn further increased their strong need to control, influence, or have an impact on others without concern for the social appropriateness of such actions and without doubt about exerting their power needs. Although this interpretation may be applicable, it is weakened by the fact that the results to which it applies are correlational. In addition, it would be more conclusive if the relation between drinking and expectancy of help and recognition had actually been measured for the subjects in this study and if it could have been shown that remitted alcoholics had higher Hope of Power scores before they attained sobriety.

There is another aspect of the power motive, namely Fear of Power, which was measured in this study. Although it does not have an identical conceptual meaning as McClelland, Davis, Kalin, and Wanner's (1972) socialized or s Power measure, it does correlate positively and significantly with the s Power variable (Winter, 1973). Socialized power scores represent a more altruistic way of acting out one's high power needs. According to McClelland et al., s Power scores did not differentiate between males with light and heavy drinking histories. In the present study, the mean Fear of Power scores were not significantly different among the three groups. Since the 30 controls included 15 moderate drinkers and 13 light drinkers and since the unremitted alcoholics had histories of heavy drinking and the remitted alcoholics, although now sober, once had histories of heavy drinking, it is concluded that Fear of Power like socialized power does not distinguish among males with different drinking histories. However, comparing the mean Fear of Power scores for
the three groups, the remitted alcoholics' and controls' means were
most similar. Their means were also very similar to the mean Fear of
Power score for a group of normal males used in a study by May (cited
in Winter, 1973). In addition, it has already been reported that
the remitted alcoholics and controls had almost identical mean group
scores on the Hope of Power variable.

There are two possible explanations of the obtained pattern of
scores for the remitted alcoholics on the power measures. Either
these alcoholics had low Hope of Power and higher Fear of Power
scores than the unremitted alcoholics before treatment or treatment
was a major factor in reducing their Hope of Power scores on the one
hand and increasing the Fear of Power needs on the other. The

treatment factor is proposed as the more probable explanation because
McClelland et al. (1972) claimed that in order for treatment with
an alcoholic to be effective, it should attempt to help the alcoholic
find less self-destructive means of reinforcing his sense of personal-
ized power. Many of the methods recommended by McClelland et al.
were similar to the approaches taken by the remitted alcoholics in
the present study: For example, these alcoholics had been sober
for a least one year, during which time many of them had participated
in a follow-up programme, became involved in community organizations,
and improved their work records by reducing the frequencies of
lateness and absenteeism. Such actions represented ways of learning
to socialize their personalized power needs, borrowing emotional
strength from other person(s), and being more successful, vocationally
all of which were recommended by McClelland et al. Therefore, it
can be stated that these factors may have contributed to their scores
being similar to the controls on the Hope and Fear of Power variables. However, such an assumption has to remain hypothetical until more longitudinal research can show that these factors do correlate with a reduction in the alcoholic's needs for personalized power and with an increase in his socialized power need.

The present study's results are consistent with McClelland et al. (1972) and Winter's (1973) findings that Power or Hope of Power is related to heavy drinking and alcoholism. However, Key, Cutter, Rothstein, and Jones (1972) and Cutter, Key, Rothstein, and Jones (1973) claimed that their findings support the view that inhibition might be more functionally related to alcohol consumption than power. In fact, Key et al.'s results indicated that inhibition was a better predictor of sobriety among male alcoholics. Although the present study did not directly measure inhibition and consequently cannot provide data supporting or opposing Key et al. and Cutter et al.'s conclusions, three criticisms of their research seem warranted. First, the power factor in Key et al.'s study was not identical to McClelland's and this may account for the inconsistent results. Second, both studies measured the effect of power and inhibition on alcohol consumption in an experimental setting, whereas McClelland et al.'s measures were obtained while the subjects were at a neighborhood bar or attending a fraternity party. Consequently, their experimental designs are not directly comparable and it can be argued that the experimental atmosphere of Key et al. and Cutter et al. may have increased the effect of inhibition on alcohol consumption. Thirdly, these two studies did not use non-alcoholic controls to compare the effects of inhibition and power
On their alcohol consumption.

With regard to the relationship between the personality dimension of dependency and alcoholism, the results of the present study are at best equivocal. There were no significant differences between the mean scores of the three groups on the dependency measure, Oral Dependence. In addition, this measure showed no relationship with severity of alcoholism. In contrast, Morrison (1973) used the same dependency measure and found that alcoholics scored significantly higher than non-alcoholic controls. However, it can be argued that this inconsistency is in part due to the fact that the Oral Dependence scale of the revised Picture Preference Test (PPT) has poor internal consistency (Morrison, 1973) and, therefore, it may not even be measuring dependency.

There is also another implication to be drawn from the present study's results, namely, that a single measure of dependency does not appear to be sufficient. What is needed, along with such a measure, are psychometric assessments of the psychological consequences of a dependency-independency conflict. A more preferable approach would be a multi-dimensional one which would include measures of dependency, dependency-independency conflict, and psychological correlates of such a conflict. Such an approach is supported by the findings of Bacon, Barry, and Child (1965) and Bacon (1974) which showed that dependency was related to high frequencies of drunkenness in societies which did not nurture dependency in infancy; demanded independence and self-sufficiency during childhood, and did not tolerate dependency strivings in adulthood. Therefore, a multi-dimensional approach allows us to see how an individual's attempts to cope with strong
dependency strivings are affected by societal attitudes toward dependency.

In the present study, antisocial tendency was measured because it has frequently been reported as a distinctive trait of an alcoholic (Hill, Haerizan & Davis, 1962; Hoyt & Sedlacek, 1958; Lawlis & Rubin, 1971; MacAndrew & Geerstma, 1963; Rosen, 1960; and Williams, McCourt & Schneider, 1971). According to Morrison (1973), such tendencies result from the alcoholic's resentment of being deprived of nurturant and infantile support in his adult relationships. The Antisocial Impulse scale of the PPT was constructed to measure this tendency. However, the mean scores on this scale were not significantly different among the three groups. Since this scale's internal consistency reached an acceptable level of significance, it is concluded that antisocial tendencies were the same among the alcoholics and non-alcoholics in this study.

The third major area of investigation was to determine whether the I-E scores could differentiate among the three groups. The results showed that there were no significant differences between the three groups. However, by combining the scores of the two alcoholic groups and comparing them with the control group's scores, the t-test was significant at the .06 level. More specifically, the alcoholics, both remitted and unremitting, had lower I-E scores, that is, they were more internally-oriented than the non-alcoholic controls. Although this finding was contrary to the prediction that the unremitting alcoholic's group mean score would be higher or in a more external direction than the remitted alcoholic and control groups' mean scores, it is consistent with most previous research. Distefano,
Pryer and Garrison (1972), Goss and Norosko (1970), and Gozali and Sloan (1971) have found that male alcoholics were significantly more internally-oriented than non-alcoholic males. Therefore, internality appears to be a distinctive trait among male alcoholics. The only exception to such findings is Nowicki and Hopper's (1974) study. Although these authors were investigating locus of control behavioral correlates in alcoholics, they did discover that the mean I-E scores of their male inpatient and outpatient alcoholic samples were not significantly different from the mean I-E scores of the non-alcoholic college and non-college adults in the normative samples used by Nowicki and Duke (1973). However, these normative samples included both males and females and consequently Nowicki and Hopper's results are not directly comparable to the previous findings, including those of the present study, because of sex differences in the samples. All other studies' results were based on comparisons between male alcoholics and non-alcoholics. Furthermore, since Nowicki and Hopper did find that the inpatient female alcoholic sample was significantly more external than the inpatient and outpatient male alcoholic and outpatient female alcoholic groups, it may follow that, as the authors suggested, externality is related to alcoholism only with a more pathological group of females, namely those who are hospitalized.

In explaining the high internality among alcoholics, Goss and Morosko (1970) suggested that it is possible that alcoholics understand the contingency between their behavior and what for them is the preferred source of reinforcement, namely, alcohol. Therefore, choosing to drink and accepting the possible consequences
is in their control. Cozolli and Sloan (1971) stated that alcoholics may believe they can control their drinking in spite of evidence to the contrary and consequently, it is this sense of personal control that causes alcoholics to score in a more internal direction on the I-E scale. Distefano, Pryer, and Garrison (1972) concluded that the excessive internality of alcoholics may represent an unrealistic or deviant perception of control of reinforcement. The results of the present study may suggest an interpretation in line with Goss and Morosko's inference. There was a trend indicating that I-E correlated negatively with Hope of Power (r = -.179, p < .10). In other words, subjects who scored high on Hope of Power tended to score low on I-E, that is, in a more internal direction. McClelland, Davis, Kalin, and Wanner (1972) have pointed out that an excessive drinker who scores high on p Power, probably has a strong need to be instrumental in actualizing his expectancy of personal aggrandizement. When this expectancy is not fulfilled, he tries to directly increase his sense of personal power by drinking in order to feel in control. Therefore, this may explain the personality dynamics underlying the negative relationship between I-E and Hope of Power and why alcoholics are more internally-oriented than non-alcoholics.

The discussion up to this point has dealt with the results of the projective measures of power and dependency within the alcoholic and non-alcoholic groups. Four Personality Research Form (PRF) scales were also used in order to obtain non-projective measures of the power and dependency personality dimensions. Two PRF scales, Autonomy and Dominance, were added because it was initially thought that high scores on these scales would correlate positively with the
Hope of Power scores and negatively with the Fear of Power scores and thereby help to discriminate among the three groups on the power dimension. However, there was little or no correlation between these scales and the Hope of Power scores or the Fear of Power scores. In addition, there were no significant differences between groups on the two PRF scales. The Nurturance and Succorance scales were added because it was thought that high scores on Succorance would correlate positively with the Oral Dependency scale and high scores on Nurturance would correlate negatively with Oral Dependency. Therefore, it was expected that these PRF scales would help discriminate between the three groups on the dependency dimension. Succorance showed no relationship with Oral Dependency and Nurturance had a significant but weak correlation with the Oral Dependency scale. This latter correlation suggested that Nurturance and Oral Dependency scales are measuring a similar personality variable since subjects high in nurturance would be supportive, sympathetic, helpful, comforting, etc., and simultaneously low in dependency strivings. However, no significant differences between groups were found on the Nurturance and Succorance scales.

These findings suggest that method variance, that is, different ways of measuring the same personality variable, may be accounting for the lack of correlation between the PRF scales and the projective measures of power and dependency. However, the Antisocial Impulse scale (PPT) did show a significant correlation with Autonomy and Nurturance. More specifically, high scores on Autonomy correlated positively with high scores on the Antisocial Impulse scale while
low scores on Nurturance were associated with high scores on the Antisocial Impulse scale. Therefore, the Antisocial Impulse scale appears to be a good measure since part of the Autonomy scale also measures rebellious tendencies and obviously, individuals with strong antisocial tendencies would not at the same time have intense nurturant tendencies.

The Antisocial Impulse scale also showed a highly significant and positive correlation with Fear of Power. In describing the Fear of Power motive, Winter (1973) claimed that individuals with this power motive may have an underlying unrealistic sense of being powerful which is generated by a sense of weakness, and subsequently, they fear and avoid situations in which they are at the mercy of others. In other words, they want to dominate but have strong inhibitions against domineering behaviour. These personality dynamics are similar to Morrison's (1973) description of the alcoholic personality which includes strong antisocial tendencies because of repressed feelings of hostility toward authority. Winter also reported that Fear of Power is significantly related to a sense of autonomy, a relationship which was found in the present study. Winter posits that men with a strong Fear of Power motive also have autonomy concerns because of a fear of structure, especially structure imposed by someone else of high status or power. In the present study, subjects who scored high on Fear of Power also scored high on Antisocial Impulse and Autonomy. Therefore, it can be postulated that fear and hostility towards authority could be accounting for the relationship between Fear of Power and Autonomy.

It should also be pointed out that the Hope of Power and Fear of Power scores in this study showed a significant positive
correlation. This is contrary to Winter's (1973) findings that Hope of Power and Fear of Power are uncorrelated. However, his samples included primarily male college students and upper-middle class executives, whereas the present study's samples consisted of primarily lower class, non-college males. Therefore, sample differences could account for the inconsistency between findings.

Conclusions

The primary aim of the present study was to determine whether the personality dimensions of dependency, power, and locus of control could be used as predictors of alcoholism. Although only one of the three hypotheses was supported, namely, that Hope of Power is a distinguishing characteristic of unremitting alcoholics, the results remain inconclusive. The main dependency measure, Oral Dependency, was unreliable because of its poor internal consistency which suggests that it may not be measuring orality needs as assumed. In addition, it is possible that a more total measurement of dependency which includes measures of the various personality traits related to dependency strivings might provide stronger results. Although no such combination of traits was measured in the present study, the three traits that were posited as correlates of dependency, namely, antisocial tendencies, nurturance, and succorance were not distinguishing traits among the three groups. Furthermore, the weak relationship between the PRF scales, Nurturance and Succorance, and Oral Dependency may be due to the confounding effects of method variance on the one hand, and the inadequate internal consistency of the Oral Dependency scale on the other. Therefore, in view of
the questionable findings with regard to dependency and alcoholism, the issue of whether power need is a better predictor of alcoholism than dependency remains to be resolved.

In addition, the results are not that clear with regard to the power motive. Winter's (1973) conclusions about the power motive were based on many weak correlations and small differences between samples which raises questions about the validity of the power measure and/or power construct. However, one possible reason for these weak correlations and small differences is that there is a wide array of mutually exclusive actions which are related to the power motive, ranging from authoritarian leadership to heavy drinking. Another factor to consider is that although the Hope of Power variable could not discriminate between subjects in the discriminant function analysis in the present study, the actual difference between the control and remitted alcoholic groups' means was very small which in effect reduced the discriminatory ability of the Hope of Power variable to distinguish between the three groups of subjects. This suggests that if the controls and remitted alcoholics were combined into a non-problem drinking group and then compared with the unremitting alcoholics, the Hope of Power variable would have discriminated more effectively.

In the literature review of dependency and power in Chapter 1, it was pointed out that these two personality dimensions may represent ends of the same psychological continuum. According to the findings of McCord and McCord (1960) and McClelland, Davis, Kalin, and Wanner (1972), this continuum appears to represent ways of coping with a
strong feeling of an inadequate sexual identity. More specifically, a male with intense dependency strivings, who has surrendered to these needs, usually experiences feelings of anger and hostility which result from the frustrations in trying to appear independent because of society's demands. The male with a strong need to be powerful handles this motive by acting out aggressively in order to reach his personal goal of self-aggrandizement and views everyone, as a formidable challenger to his power. Therefore, assertive actions, fantasized or acted out, are common to both personality predispositions. There was some supporting evidence for this interpretation in the present study since there was a significant correlation between the Oral Dependency and Antisocial Impulse scales and a trend of relatedness between the Antisocial Impulse scale and the Hope of Power measure.

Sutherland, Schroeder, and Tordella (1950) and Syme (1957) have reviewed more than two decades of research on alcoholism and concluded that there was not sufficient evidence supporting the view that alcoholics have a personality predisposition which is not found in non-alcoholics. Similarly, it may be argued that the inconclusive results with regard to the hypotheses in the present study may be due to the lack of this distinctive 'alcoholic personality'. This inference is in part supported by the finding that all of the R-square values in the stepwise multiple regression analysis were not significant. The R-square values were measures of the amount of variance within subjects on the criterion variable, severity of alcoholism, accounted for by the different personality variables. However, such an inference cannot be conclusive since there are
several weaknesses in the measuring instruments. For example, the reliability and validity of the Oral Dependency scale, ANSIE, Hope of Power, and Fear of Power are questionable. The applicability of these findings to the general population is also limited because of restrictions in the samples utilized. These restrictions include the fact that social background was lower socioeconomic class, the mean age was limited to the early forties, and the average education was less than 12 years. Optimally, even with such demographically restricted samples, larger sample sizes should be obtained than those used in the present study.

Future research with the personality dimensions of power and dependency and their relationship to alcoholism should include a combination of psychometric scales which measure dependency needs and related personality traits. Since the power motive has not been measured extensively with alcoholics, then more research investigating the role of the Hope and Fear of Power variables is needed. In addition, since the power motive has many behavioral correlates, of which excessive drinking is only one, then a better approach to determine how this motive is related to alcoholism would be to study how well it can predict behavior of alcoholics in various experimental situations. Furthermore, since societal strictures due to class barriers reportedly affect the action outcomes of males with high power needs, then a comparison of the intensity of this motive across alcoholics with different socioeconomic backgrounds should be undertaken.

Finally, it initially appeared to be good methodological
strategy to divide the alcoholics into remitted and unremitted groups. However, such a division may only have confounded the results, especially with regard to the discriminant function analysis, because the remitted group may have had personality traits similar to the unremitted alcoholics on the one hand and controls on the other.

This distinction between alcoholics does, however, have implications for treatment especially with the Hope of Power and Fear of Power variable. McClelland, Davis, Kalin, and Wanner (1972) suggested that therapy with alcoholics should attempt to reduce personalized power needs. In the present study, the unremitted alcoholics had the highest personalized power needs. Although it cannot be stated definitely that the remitted alcoholics' personalized power needs had been reduced as a function of treatment, this question could be answered in longitudinal investigations. Such research could obtain several pre- and post-treatment measures of Hope and Fear of Power in alcoholics and then determine the correlations between these measures and various behavioral indices of sobriety.

Another confounding issue in the present study was that the kind of alcoholic beverage consumed by the unremitted and remitted alcoholics was not known. This information may have been important because both Winter (1973) and McClelland et al. (1972) found that the relationship between Hope of Power or personalized power and heavy drinking existed only for liquor consumption as opposed to beer or wine consumption. It was not known whether liquor was the most frequent choice of beverage only among the unremitted alcoholic subjects and as a result contributed to their high power scores. Future research should include measures of the kinds of alcoholic...
beverages used most frequently in order to determine whether the
correlations between beer versus liquor consumption and Hope of Power
are the same for alcoholics as they were for heavy drinkers in the
Winter and McClelland et. al. studies.
APPENDIX A

LETTER SENT TO ALCOHOLIC SUBJECTS

Dear Connaught Graduate:

I am writing to ask that you participate in a research project on alcoholism. During my eighteen months at Connaught Clinic, I became very interested in why some of our graduates stayed sober while others could not. I asked several graduates why they were able to stop drinking. However, no one could attribute their sobriety to any specific reason. Consequently, I have decided to carry out a research project to investigate this question.

Although I am not at present working at Connaught Clinic, I plan to give the research findings to the new staff at the Clinic. I expect some of the findings or results can be used in their treatment program. In addition, upon completion of this research, I will be able to graduate from the psychology department at the University of Windsor with a Ph.D.

As mentioned above, I need volunteers to participate for two hours during one evening or early afternoon. During those two hours you will be required to complete four short psychological tests. In order to maintain confidentiality, no names will be used. In return for your participation, I will send you a summary of the research findings. It should also be pointed out that your participation may help me to discover those personality dimensions that are important in sobriety.

If you would like to participate, please call 258-4799 before Friday, June 28th. I will be testing people during the week of July 2 - 5. There will be two testing sessions during each of those four days. For those people working afternoons, testing will take place from 12:30 p.m. to 2:30 p.m. and for those on the day shift, testing will be held during the evening from 7:00 p.m. to 9:00 p.m. The testing sessions will be at the UAW Hall, 42 Chatham Street.
GENERAL INFORMATION QUESTIONNAIRE FOR ALCOHOLICS

APPENDIX B

Present Age: ____________________________ Date of Birth: ____________________________

Marital Status: single ________ married ________ divorced ________ separated ________

Education: (i) Primary School: last grade completed 4 5 6 7 8.
(ii) Secondary School: last grade completed 9 10 11-12-13
(iii) College or University: number of years completed ________

Presently employed: yes ________ no ________

Present Employer: ____________________________ How long: ____________________________

State specifically the kind of work you do: ____________________________

What are your duties at work: ____________________________

When did you complete the Connaught Clinic Programme: ____________________________

Have you had any slips since then? yes ________ no ________

If yes, how many ________ How many days was your longest slip: ________

When was your last slip: ____________________________

How many years had drinking been a problem before you joined Alcoholics Anonymous: ________
APPENDIX C

TWO FACTOR INDEX OF SOCIAL POSITION

The Two Factor Index of Social Position was devised by Myers and Bean (1968) to rank individuals and estimate the social-class into which an individual falls. Two criteria are used to determine an individual's socio-economic status. These are occupational status and level of education.

The occupational scale places executives and managers in different groups according to the size and value of the businesses they work in. The seven positions on the scale are: (1) executives and proprietors of large concerns and major professionals; (2) managers and proprietors of medium concerns and minor professionals; (3) administrative personnel of large concerns, owners of small independent businesses and semi-professionals; (4) owners of little businesses, clerical and sales workers, and technicians; (5) skilled workers; (6) semiskilled workers; and (7) unskilled workers.

The educational scale is divided into seven positions: (1) graduate professional training; (2) standard college or university graduation; (3) partial college training (including individuals who have completed at least one year but not full college requirements); (4) high-school graduation (including all secondary-school graduates, whether from a private school, public high-school, or trade school); (5) partial high-school (including individuals who have completed the tenth or eleventh grades but not the full high-school requirements); (6) junior high-school (including individuals who have completed...
the seventh, eighth, or ninth grades); (7) less than seven years of school.

To calculate the Index of Social Position score for an individual, the scale value for occupation is multiplied by the factor weight for occupation, and the scale value for education is multiplied by the factor weight for education. For example, John Smith is the manager of a chain supermarket. He completed high-school and one year of business college. His Index of Social Position score is computed as follows:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Scale Score</th>
<th>Factor Weight</th>
<th>Score x Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>3</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

Index of Social Position Score 33

The Two Factor Index of Social Position scores may be arranged on a continuum or divided into groups of scores. The range of scores on the continuum is from a low of 11 to a high of 77. Myers and Bean (1968) report that they have found that the most meaningful classification for the purpose of predicting the social-class position of an individual is as follows:

Range of Computed Scores

11-17
18-27
28-43
44-60
61-77

Social Class

I - Upper Class
II - Upper-Middle Class
III - Lower-Middle Class
IV - Upper-Lower Class
V - Lower-Lower Class
APPENDIX D

LETTER SENT TO MEMBERS OF UAW, LOCAL 195

The research you are being asked to participate in will be investigating specific personality features which have been found to be related to alcoholism. I will not be trying to find out whether you are an alcoholic. On the contrary, I already have a large group of male alcoholics who will be participating in this research project. You will be part of a group of males whose test scores will be compared with the alcoholic group's scores. Such a comparison will allow me to discover the similarities and differences in the personalities of alcoholic and non-alcoholic males.

Your participation involves filling-out four psychological test forms. This will take approximately two hours. No names will be used on those tests. In return for your participation, I will send you a summary of the research findings. In addition, your participation in this research will help me gather important information on alcoholism which in turn can be used by professionals who are trying to curb the problems created by alcoholism in our community. These problems include traffic deaths, industrial accidents, broken homes, alcohol abuse among teenagers and so on. I have also discussed this research study with the president of local 195 of the UAW, John Moynahan, who gives it his full support because of the possible benefits for problem drinkers in industry.

Testing will take place at the UAW Hall at 42 Chatham Street. I will be at the hall for testing during the week of July 2 - 5. For those people working afternoons, testing will take place from 12:30 p.m. to 2:30 p.m. and for those on the night shift testing will be held during the evening from 8:00 p.m. to 10:00 p.m. If you would like to participate, please call 258-4799 before Friday, June 28th.
APPENDIX E

LETTER POSTED FOR MEMBERS OF SERVICE EMPLOYEES

UNION, LOCAL 210

Greetings:

We have been requested by Mr. M. Douglas Brown, M.A., Department of Psychology, University of Windsor, to ask our male members to participate in a research on alcoholism. In making his request Mr. Brown wrote us as follows:

"The research you are being asked to participate in deals with alcoholism. More specifically, I am measuring three aspects of personality make-up in a group of male alcoholics and comparing these results with the same personality measures taken from a group of non-alcoholic males. You are being asked to be part of the non-alcoholic group. Your participation involves completing four short psychological tests. These tests primarily require yes and no or true and false answers to a series of questions or pictures. It will take 90 minutes to complete the tests and I will be testing people in groups. No names will be needed in order to ensure the confidentiality of all who agree to participate.

This research study is being directed by a committee of professors from the Department of Psychology at the University of Windsor. In return for your participation, I will send a summary statement of the research results to anyone who is interested. Furthermore, it should be pointed out that you will be participating in a study which should provide results that can be used by mental health workers who are trying to curb the problems created by alcohol in our community."

Mr. Brown attended our monthly meeting of September 11th and those of you who were at this meeting heard Mr. Brown give a short explanation of how important this research is.

The Executive Board of Local 210 is fully behind this research and we are urging all our male members to participate. There will be two sessions as follows, during which volunteers may participate:
DATE: Tuesday, September 24, 1974.

TIME: 12:30 p.m. to 2 p.m. and 7:30 p.m. to 9 p.m.

PLACE: Union Hall, 3905 Tecumseh Road, East, (Corner of Aubin and Tecumseh Rds.).

Members who are interested in this research please phone the

Union Office: 944-2217.
## APPENDIX F

### GENERAL INFORMATION QUESTIONNAIRE FOR CONTROLS

<table>
<thead>
<tr>
<th>Present Age</th>
<th>Date of Birth</th>
<th>Marital Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>single</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Primary School: last grade completed 4 5 6 7 8</td>
</tr>
<tr>
<td>(ii) Secondary School: last grade completed 9 10 11 12 13</td>
</tr>
<tr>
<td>(iii) College of University: number of years completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Presently Employed:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Present Employer:</th>
<th>How long?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>State specifically the kind of work you do</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What are your duties at work?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Do you drink alcoholic beverages:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>If yes, are you</th>
<th>(i) heavy drinker</th>
<th>(ii) moderate drinker</th>
<th>(iii) light drinker</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>If a heavy drinker, how much do you drink on the days when drunk?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Amount</th>
<th>Type of alcoholic drink:</th>
<th>liquor</th>
<th>beer</th>
<th>wine</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>If a heavy drinker, how long</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Have you ever had any police arrests due to drinking:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>If yes, what was the nature of the arrests?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Have you ever had blackouts because of drinking:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Frequency of blackouts:</th>
<th>seldom</th>
<th>several times</th>
<th>often</th>
</tr>
</thead>
</table>
Do you ever take a morning drink to settle yourself down? yes ______ no ______ how often ______
APPENDIX G

DESCRIPTION OF PICTURE PREFERENCE TEST AND SCORING KEY

Trait-Scales

1. Impulsivity trait-scale
2. Oral dependence trait-scale
3. Magical omnipotence trait-scale
4. Antisocial impulse trait-scale
5. Avoidance of intimacy trait-scale
6. Infantile need for security, regressiveness and passivity trait-scale
7. Masochism trait-scale
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Picture A</th>
<th>Picture B</th>
<th>Addictive Choice</th>
<th>Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Two men arguing</td>
<td>One man hitting the other</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Marquee displaying LOVE STORY</td>
<td>Marquee displaying GODFATHER</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Sleeping Beauty being kissed awake by prince</td>
<td>Girl coming to family breakfast table</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Frustrated boy sitting in front of math problem with figures Xed out</td>
<td>Same boy being reprimanded by mother</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>Man being shot from a cannon</td>
<td>A clown</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>Young man, arm-in-arm with girlfriend</td>
<td>Same man walking hand-in-hand with parents</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>A conservative appearing man</td>
<td>A masked man</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>A male sword-swallower</td>
<td>A male fire-eater</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>WRONG</td>
<td>RIGHT</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>10.</td>
<td>Rear view of a tenement and alley</td>
<td>A fun-house mirror with distorted reflection</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>11.</td>
<td>Boy climbing a tree</td>
<td>Boy with custard pie on face</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>12.</td>
<td>A man and woman kissing</td>
<td>Scene inside theatre</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>Father reprimanding son in a loving way</td>
<td>Son kicking family cat</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>-----------</td>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td>14.</td>
<td>YES</td>
<td>NO</td>
<td>B</td>
<td>7</td>
</tr>
<tr>
<td>15.</td>
<td>A wheelchair</td>
<td>A pair of crutches</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>16.</td>
<td>A skinny man</td>
<td>A fat man</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>17.</td>
<td>Man sweeping the floor</td>
<td>Man walking a tight-ropes</td>
<td>B</td>
<td>7</td>
</tr>
<tr>
<td>18.</td>
<td>Refrigerator with door open - amply stocked</td>
<td>Refrigerator with door closed</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>19.</td>
<td>A wolf</td>
<td>Flock of wild geese</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>20.</td>
<td>Christmas tree with presents</td>
<td>Santa Claus with bag of presents</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>21.</td>
<td>A boy being treated by a doctor</td>
<td>Boy escaping through window from scene of crime</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>An upright baby bottle</td>
<td>Same bottle tilted down and out</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>23.</td>
<td>Medicine cabinet filled with toothbrushes, band-aids etc.</td>
<td>Game, filled with pill bottles</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>24.</td>
<td>A stack of enas on table in a heap</td>
<td>Man's hand adding a can to a tall tower of shakey cans</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>25.</td>
<td>Mother feeding son</td>
<td>Father feeding son</td>
<td>A</td>
<td>6</td>
</tr>
</tbody>
</table>
Picture A

26. A girl thinking about a grave
27. Figure going down in a whirlpool; man diving in to save him
28. Man cooking his own meal
29. Modern art representation of a figure close up
30. Figure giving shot to a man's arm
31. Bedroom, two figures in bed
32. Man finding a filled treasure chest
33. A group of people standing and talking
34. Young boy playing with toy cars
35. A drunk being laughed at
36. A man hanging from cliff, holding branch with one hand

Picture B

3. Same man as "chairman of the board"
5. Same, with one person away from the group
7. Young boy playing with lighted match

Addictive Choice Trait

- Same girl thinking about husband and child
- Same, but man throwing life preserver
- Man lying in hospital bed with food tray in front of him
- Same - at a distance
- Some man receiving shot from an arm
- Bedroom, one figure in bed
- Same - at a distance
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Picture A</th>
<th>Picture B</th>
<th>Addictive Choice</th>
<th>Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>A man with mask and gun</td>
<td>A policeman</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>38</td>
<td>Cinderella being tapped by fairy god-mother</td>
<td>Girl fitting in a beautiful dress in a store</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>39</td>
<td>A rose with thorns</td>
<td>A dead tree</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>An escalator</td>
<td>An express elevator with door closed</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>A road going into distance with town in</td>
<td>Same scene, with no town in sight</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>42</td>
<td>A double bed</td>
<td>Twin beds</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>43</td>
<td>A muscular stevedore</td>
<td>Superman</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>A car parked by side of road with hood up</td>
<td>Same car driving on mountain road with cliff on side of road</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>A woman holding a baby</td>
<td>Same woman playing with baby</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>46</td>
<td>Boy putting candy into his mouth</td>
<td>Boy looking through a small telescope</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>47</td>
<td>Man with super-human qualities</td>
<td>Same man with normal qualities</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>Sleeping Beauty and Prince Charming</td>
<td>Snow White and the seven dwarfs</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Additive Choice</td>
<td>Trait</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>-----------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>Male graduate in cap and gown</td>
<td>B</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>A car going over a bumpy road</td>
<td>A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>Boy holding hands with mother</td>
<td>B</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>Tug-of-war contest; both sides even</td>
<td>B</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>A woman in a bathing suit</td>
<td>B</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>54.</td>
<td>Child, arm-in-arm with family</td>
<td>B</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>A very thin woman</td>
<td>B</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>56.</td>
<td>Stethoscope</td>
<td>B</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>57.</td>
<td>Father pulling son in wagon</td>
<td>A</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>58.</td>
<td>Car being pushed by tow truck</td>
<td>B</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>59.</td>
<td>Young child being spanked</td>
<td>A</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>60.</td>
<td>A boy skating</td>
<td>B</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
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<tr>
<td>61.</td>
<td>Wizard giving a person a magical potion - person drinking it changes into a king</td>
<td>Same person studying, and then scene of him graduating</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>62.</td>
<td>Picture of a mouth</td>
<td>Picture of two eyes</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>63.</td>
<td>A buxom woman</td>
<td>A normal size woman</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>64.</td>
<td>Boy throwing a rock through a window - policeman watching</td>
<td>Boy sitting at desk in classroom</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>65.</td>
<td>Man walking across a shattered rope bridge</td>
<td>Man moving a heavy rock</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>66.</td>
<td>A baby being bottle-fed, mother's face showing happiness</td>
<td>Same, mother's face not showing happiness</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>67.</td>
<td>Empty garage, with door open</td>
<td>A handgun</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>68.</td>
<td>Long line of people waiting to go into a restaurant</td>
<td>An 'automat</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>69.</td>
<td>Young child, sucking his thumb</td>
<td>Same child, playing with pots and pans</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>70.</td>
<td>A hospital (outside view)</td>
<td>Line of traffic waiting for train to pass</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>71.</td>
<td>Person stealing a car</td>
<td>Same person paying money to car salesman</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
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<tr>
<td>72.</td>
<td>Union picketers outside office building</td>
<td>Men at negotiating table</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>73.</td>
<td>A medical journal</td>
<td>A detective magazine</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>74.</td>
<td>Boy excitedly opening Christmas presents under tree</td>
<td>Christmas tree and presents unopened</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>75.</td>
<td>True-false answer sheet - all true items checked</td>
<td>Same but evenly distributed true, false items checked</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>76.</td>
<td>Mother, father and son riding bicycles together</td>
<td>Same family, walking hand-in-hand</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>77.</td>
<td>A secluded tree</td>
<td>A family house</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>78.</td>
<td>Man walking down a street with group approaching on other side</td>
<td>Same, with group approaching on same side of street</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>79.</td>
<td>Two men arguing</td>
<td>Same, but with men with their backs to each other</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>80.</td>
<td>Boy pulling girl's pigtails</td>
<td>Girl reading</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>81.</td>
<td>A man drinking out of a bottle</td>
<td>Same, drinking out of a glass</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>82.</td>
<td>A woman viewed at eye-level</td>
<td>Same, viewed from below, as if by a child</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
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<tr>
<td>95.</td>
<td>Line of 3 white ducks and one black duck swimming</td>
<td>Four white ducks swimming in a line</td>
<td>Man proposing to a woman</td>
<td>A</td>
</tr>
<tr>
<td>96.</td>
<td>Princess kissing a frog – He changes into a handsome prince</td>
<td></td>
<td>Same scene, with female doctor</td>
<td>A</td>
</tr>
<tr>
<td>97.</td>
<td>A woman on a bed being examined by a male doctor</td>
<td></td>
<td>Man shovelling dirt, working hard</td>
<td>B</td>
</tr>
<tr>
<td>98.</td>
<td>Man hung-over from drinking</td>
<td></td>
<td>Same scene, with man glancing back at woman's legs</td>
<td>A</td>
</tr>
<tr>
<td>99.</td>
<td>A man passing a woman on street, not turning to look</td>
<td></td>
<td>Mouse climbing to piece of cheese in baited trap</td>
<td>B</td>
</tr>
<tr>
<td>100.</td>
<td>View over back of mouse looking out of hole at cat watching</td>
<td></td>
<td>Same scene, with disorder and signs of being lived in</td>
<td>B</td>
</tr>
<tr>
<td>101.</td>
<td>A room with everything in place</td>
<td></td>
<td>Same man, no mask, no expression</td>
<td>B</td>
</tr>
<tr>
<td>102.</td>
<td>A man wearing a smiling mask</td>
<td></td>
<td>Accident victim eating by own hand</td>
<td>A</td>
</tr>
<tr>
<td>103.</td>
<td>Accident victim being fed intravenously</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
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</tr>
<tr>
<td>83.</td>
<td>Row of ducks following their mother</td>
<td>Same, ducks scattered, all involved in something</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>84.</td>
<td>Boy jumping off high rock - rubble below</td>
<td>Boy sitting and reading</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>85.</td>
<td>Man being carried away by angels-heavenly scene</td>
<td>Man at work in office</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>86.</td>
<td>Young boy sick in bed with mother attending him</td>
<td>Mother and older boy standing talking</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>87.</td>
<td>Baby with pacifier in his mouth</td>
<td>Same, with baby looking at mobile</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>88.</td>
<td>Young bird pulling worm from ground, mother watching</td>
<td>Mother bird feeding young in nest</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>89.</td>
<td>An owl</td>
<td>Man and woman</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>90.</td>
<td>A roller coaster ride seen from first car</td>
<td>Baby kangaroo in mother's pouch</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>91.</td>
<td>A teddy-bear</td>
<td>A duck pull-toy</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>92.</td>
<td>Man with wizard-like qualities showing he can read people's minds</td>
<td>Same man, talking casually to some people</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>93.</td>
<td>Man piloting an airplane</td>
<td>Same man, flying himself</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>94.</td>
<td>A beggar sitting on sidewalk holding tin cup</td>
<td>A man struggling to lift a heavy weight</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
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<tr>
<td>104</td>
<td>Man in jail cell, reading</td>
<td>Same man, sawing in bars of cell-windows</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>105</td>
<td>Woman making cake appear by snapping her fingers</td>
<td>Same woman buying a cake</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>106</td>
<td>Seaman being whipped</td>
<td>Seaman scrubbing the deck</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>107</td>
<td>Two dogs walking</td>
<td>One dog walking</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>108</td>
<td>Masked man stealing money out of telephone box</td>
<td>Man reading at a desk</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>109</td>
<td>Boy dreaming of himself as a king</td>
<td>Boy reading a newspaper</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>110</td>
<td>Person in a group of people</td>
<td>Same person alone</td>
<td>B</td>
<td>5</td>
</tr>
<tr>
<td>111</td>
<td>A boy throwing a rock through a window</td>
<td>Same boy being caught by a policeman</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>112</td>
<td>Man straining under a heavy weight</td>
<td>Same man dropping the weight</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>113</td>
<td>Man going into a bar</td>
<td>Man going into office building with briefcase</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>114</td>
<td>Two thugs</td>
<td>Two businessmen</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>115</td>
<td>Courtroom</td>
<td>Pool hall</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>Item No.</td>
<td>Picture A</td>
<td>Picture B</td>
<td>Addictive Choice</td>
<td>Trait</td>
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<tr>
<td>116.</td>
<td>Frightened boy escaping down a dark street</td>
<td>Same boy walking along a bright street</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>117.</td>
<td>A clock showing 10 a.m.</td>
<td>A clock showing 12 noon</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>118.</td>
<td>Boy standing in front of father saying, &quot;I promise&quot; with fingers crossed behind his back</td>
<td>Landscape scene</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>119.</td>
<td>Criminal being apprehended by a policeman</td>
<td>Same man raking leaves</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>120.</td>
<td>A rifle</td>
<td>A hat</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>121.</td>
<td>Young boy feeding himself</td>
<td>Infant suckling at mother's breast</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>122.</td>
<td>Boy dressing himself</td>
<td>Mother dressing boy</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>123.</td>
<td>A man smoking</td>
<td>A man whistling</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>124.</td>
<td>Boy falling with parachute</td>
<td>Boy falling into arms of mother</td>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>125.</td>
<td>Woman drinking from soft-drink bottle</td>
<td>Same woman drinking from a glass</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>126.</td>
<td>Mother tying young boy's shoe</td>
<td>Same boy tying his own shoe</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>127.</td>
<td>Man being fired by boss</td>
<td>Man working at a factory machine</td>
<td>A</td>
<td>7</td>
</tr>
</tbody>
</table>
128. Classroom scene, student and teacher talking
129. A middle-aged car
130. Man walking through a field
131. A tennis player
132. Crime figure
133. An empty beach
134. A dagger
135. A fat boy
136. Car with hood up on deserted highway - man looking under hood
137. Boy working on jigsaw puzzle
138. A deer
139. Man playing a trumpet
140. Bottle of poison
141. A palm tree
142. Young child eating in a high chair

Item No.

Picture A

Picture B.

Addictive Choice

Trait

Two boys arguing
A sick man in bed
Man running through a field
A volleyball team
A horse
Same beach with some people on it
A pair of scissors
A very thin boy
Car Accident - two cars with crumpled fenders
Same boy with broken baseball bat
An elephant
Man playing drums
Bottle of cod liver oil
A cactus plant
Fetus in womb

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B

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2
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Picture A</th>
<th>Picture B</th>
<th>Addictive Choice</th>
<th>Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td>143.</td>
<td>Boy buttoning shirt</td>
<td>Boy blowing bubble</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>144.</td>
<td>Snow White asleep</td>
<td>Girl reading</td>
<td>A</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX H

TAT PICTURES USED TO MEASURE
HOPE OF POWER AND FEAR OF POWER

(I) Man and woman in nightclub setting

(II) Boxer

(III) Male figure and expensive automobile

(IV) Two prominent looking males in office setting
APPENDIX I

SELF RATING INVENTORY (PRF) INSTRUCTIONS
AND QUESTIONS

This test questionnaire measures different aspects of one’s personality. The test consists of a series of statements which a person might use to describe himself. You are to read each statement and decide whether or not it describes you. If you agree with a statement or decide that it does describe you answer TRUE by blackening the space under A on the answer sheet. If you disagree with a statement or feel that it is not descriptive of you, answer FALSE by blackening the space under B on the answer sheet.

In marking your answers on the answer sheet, be sure that the number of the statement you have just read is the same as the number on the answer sheet. Answer every statement either true or false, even if you are not completely sure of your answer. Are there any questions?
1. I enjoy doing things which challenge me.
2. If public opinion is against me, I usually decide that I am wrong.
3. I would enjoy being a club officer.
4. I think a man is smart to avoid being talked into helping his acquaintances.
5. If I have had an accident, I want sympathy from no one.
6. Self-improvement means nothing to me unless it leads to immediate success.
7. I would like to wander freely from country to country.
8. I am not very insistent in an argument.
9. When I see someone who looks confused, I usually ask if I can be of any assistance.
10. I always appreciate it when people are concerned about me.
11. I get disgusted with myself when I have not learned something properly.
12. Adventures where I am on my own are a little frightening to me.
13. I try to control others rather than permit them to control me.
14. All babies look very much like little monkeys to me.
15. I am perfectly capable of solving my personal problems without consulting anyone.
16. I work because I have to, and for that reason only.
17. When I was a child, I wanted to be independent.
18. I have little interest in leading others.
19. I feel very sorry for lonely people.
20. I often seek out other people's advice.
21. I will keep working on a problem after others have given up.
22. I don't want to be away from my family too much.
23. I feel confident when directing the activities of others.
24. I dislike people who are always asking me for advice.
25. I would not like to be married to a protective person.
26. I try to work just hard enough to get by.
27. My greatest desire is to be independent and free.
28. I would make a poor judge because I dislike telling others what to do.
29. People like to tell me their troubles because they know that I will do everything I can to help them.
30. When I need money, it makes me feel good to know that someone can help me out.
31. I often set goals that are very difficult to reach.
32. I usually try to share my problems with someone who can help me.
33. I am quite good at keeping others in line.
34. I get little satisfaction from serving others.
35. If I feel sick, I don't like to have friends or relatives fuss over me.
36. I would rather do an easy job than one involving obstacles which must be overcome.
37. I would like to have a job in which I didn't have to answer to anyone.
38. Most community leaders do a better job than I could possibly do.
39. I think it would be best to marry someone who is more mature and less dependent than I.
40. My goal is to do at least a little bit more than anyone else has done before.
41. I often do things just because social custom dictates.
42. I seek out positions of authority.
43. I really do not pay much attention to people when they talk about their problems.
44. I usually make decisions without consulting others.
45. I really don't enjoy hard work.
46. If I have a problem, I like to work it out alone.
47. I think it is better to be quiet than assertive.
48. I am usually the first to offer a helping hand when it is needed.
49. I usually tell others of my misfortunes because they might be able to assist me.
51. I prefer to be paid on the basis of how much work I have done rather than on how many hours I have worked.

52. Family obligations make me feel important.

53. When I am with someone else I do most of the decision-making.

54. If someone is in trouble, I try not to become involved.

55. I prefer not being dependent on anyone for assistance.

56. I have rarely done extra studying in connection with my work.

57. I delight in feeling unattached.

58. I would make a poor military leader.

59. I would prefer to care for a sick child myself rather than hire a nurse.

60. The thought of being alone in the world frightens me.

61. People have always said that I am a hard worker.

62. I respect rules because they guide me.

63. When two persons are arguing, I often settle the argument for them.

64. I avoid doing too many favours for people because it would seem as if I were trying to buy friendship.

65. I prefer to face my problems by myself.

66. When people are not going to see what I do, I often do less than my very best.

67. I find that I can think better without having to both with advice from others.

68. I would not do well as a salesman because I am not very persuasive.

69. When I see a baby, I often ask to hold him.

70. If I ever think that I am in danger, my first reaction is to look for help from someone.

71. I don't mind working while other people are having fun.

72. I find that for most jobs the combined effort of several people will accomplish more than one person working alone.

73. If I were in politics, I would probably be seen as one of the forceful leaders of my party.
74. People's tears tend to irritate me more than to arouse my sympathy.
75. When I was a child, I disliked it if my mother was always fussing over me.
76. It doesn't really matter to me whether I become one of the best in my field.
77. I would not mind living in a very lonely place.
78. I feel incapable of handling many situations.
79. I feel most worthwhile when I am helping someone who is disabled.
80. I like to be with people who assume a protective attitude toward me.
81. Sometimes people say I neglect other important aspects of my life because I work so hard.
82. To have a sense of belonging is very important to me.
83. I try to convince others to accept my political principles.
84. I become irritated when I must interrupt my activities to do a favour for someone.
85. I am usually very self-sufficient.
86. I am sure people think that I don't have a great deal of drive.
87. Having a home has a tendency to tie a person down more than I would like.
88. I would not want to have a job enforcing the law.
89. Seeing an old or helpless person makes me feel that I would like to take care of him.
90. When I was a child, I usually went to an adult for protection if another child threatened me.
91. I enjoy work more than play.
92. I can do my best work when I have the encouragement of others.
93. With a little effort, I can "wrap most people around my little finger."
94. It doesn't affect me one way or another to see a child being spanked.
95. I prefer to take care of things for myself, rather than have others watch out for me.
96. It is unrealistic for me to insist on becoming the best in my field of work all of the time.

97. My idea of an ideal marriage is one where the two people remain as independent as if they were single.

98. I don't have a forceful or dominating personality.

99. I can remember that as a child I tried to take care of anyone who was sick.

100. I usually feel insecure unless I am near someone whom I can ask for support.
APPENDIX J

LOCUS OF CONTROL (ANSIE) QUESTIONS

1. Do you believe that most problems will solve themselves if you just don't fool with them?

2. Do you believe that you can stop yourself from catching a cold?

3. Are some people just born lucky?

4. Most of the time do you feel that getting good grades meant a great deal to you?

5. Are you often blamed for things that just aren't your fault?

6. Do you believe that if somebody studies hard enough he or she can pass any subject?

7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?

8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?

9. Do you feel that most of the time parents listen to what their children have to say?

10. Do you believe that wishing can make good things happen?

11. When you get punished does it usually seem its for no good reason at all?

12. Most of the time do you find it hard to change a friend's (mind) opinion?

13. Do you think that cheering more than luck helps a team to win?

14. Did you feel that it was nearly impossible to change your parent's mind about anything?

15. Do you believe that parents should allow children to make most of their own decisions?

16. Do you feel that when you do something wrong there's very little you can do to make it right?

17. Do you believe that most people are just born good at sports?

18. Are most of the other people your age stronger than you are?

19. Do you feel that one of the best ways to handle most problems is just not to think about them?
20. Do you feel that you have a lot of choice in deciding who your friends are?

21. If you find a four leaf clover do you believe that it might bring you good luck?

22. Did you often feel that whether or not you did your homework had much to do with what kind of grades you got?

23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?

24. Have you ever had a good luck charm?

25. Do you believe that whether or not people like you depends on how you act?

26. Did your parents usually help you if you asked them to?

27. Have you felt that when people were angry with you it was usually for no reason at all?

28. Most of the time do you feel that you can change what might happen tomorrow by what you do today?

29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?

30. Do you think that people can get their own way if they just keep trying?

31. Most of the time do you find it useless to try to get your own way at home?

32. Do you feel that when good things happen they happen because of hard work?

33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?

34. Do you feel that it's easy to get friends to do what you want them to?

35. Do you usually feel that you have little to say about what you get to eat at home?

36. Do you feel that when someone doesn't like you there's little you can do about it?

37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you?

38. Are you the kind of person who believes that planning ahead makes things turn out better?
39. Most of the time, do you feel that you have little to say about what your family decides to do?

40. Do you think it's better to be smart than to be lucky?
APPENDIX K

NATURE OF RESEARCH PROJECT

The research you are about to participate in will be investigating specific personality dimensions which have been found to be related to alcoholism. Therefore the battery of psychological tests that you will be completing will measure these personality variables. It is expected that the results of this study will provide information that can be used by mental health professionals to further understand and treat alcoholism. Furthermore, any person who has participated in this research project can obtain a summary of the results by simply writing his name on the sheet of paper that will be handed out at the end of the testing session.

The subjects in this study includes both those individuals who have been or are struggling with an alcoholic problem and those individuals who are not experiencing any type of uncontrolled drinking problem. Since no names need to be added to any of the psychological tests, confidentiality will be maintained. I also want to personally thank everyone for volunteering a few hours of your free time to participate in this study.
### APPENDIX L

RAW SCORES FOR CONTROL, REMITTED AND UNREMITTED

ALCOHOLIC SUBJECTS ON NINE PERSONALITY MEASURES

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REFERENCES


Rosen, A. C. A comparative study of alcoholic and psychiatric patients with the MMPI. Quarterly Journal of Studies on Alcohol, 1960, 21, 253-266.


1947
- Born in Windsor, Ontario, Canada to Melvin and Lavine Brown.

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- Educated in elementary school system and completed secondary school at J. L. Forster in Windsor, Ontario, Canada.

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- Received B. Comm. (Hons.) degree and registered as a full-time graduate student at University of Windsor, Windsor, Ontario, Canada.

1969
- Received M.A. in Psychology from University of Windsor, Windsor, Ontario, Canada.

1969-75
- Registered as a full-time and part-time graduate student in the Ph.D. programme in Clinical Psychology at the University of Windsor, Windsor, Ontario, Canada.