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BURDICK, DANA RUTH

A STUDY OF INTERPERSONAL FACTORS INFLUENCING DRINKING PATTERNS AMONG ABUSIVE DRINKERS, NON-ABUSIVE DRINKERS, AND NON-DRINKERS OF ALCOHOL

The University of Oklahoma PH.D. 1980

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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A STUDY OF INTERPERSONAL FACTORS INFLUENCING DRINKING PATTERNS AMONG ABUSIVE DRINKERS, NON-ABUSIVE DRINKERS, AND NON-DRINKERS OF ALCOHOL

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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By

DANA RUTH COLLINS BURDICK

Norman, Oklahoma

1980

A STUDY OF INTERPERSONAL FACTORS INFLUENCING

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NON-ABUSIVE DRINKERS, AND NON-DRINKERS OF ALCOHOL

APPROVED BY

Robert E Ragland

DISSERTATION COMMITTEE

ABSTRACT

A STUDY OF INTERPERSONAL FACTORS INFLUENCING DRINKING PATTERNS AMONG ABUSIVE DRINKERS, NON-ABUSIVE DRINKERS, AND NON-DRINKERS OF ALCOHOL

By: Dana Ruth Collins Burdick

MAJOR PROFESSOR: Robert Ragland, Ph.D.

The primary purpose of this study was to determine the factors that influenced various drinking patterns. The population consisted of 114 men.

For purposes of this investigation, an abusive drinker was defined as an individual who was arrested and determined by the court to be intoxicated. Non-abusive drinking was defined as moderately drinking not more than three (3) times a week and never having been arrested for intoxicated behavior. A questionnaire designed by John Hopkins Hospital was further used to screen for individuals who might tend to be abusive drinkers. Non-drinkers were defined as those who do not consume alcohol. Instruments used in this study were Rotter's Internal-External Locus of Control Scale, Drinking Related Internal-External Scale (DRIE), and Fundamental Interpersonal Relationship Orientation (FIRO-B) Scale. One score is obtained from each of the Rotter and DRIE Scales while six scores are obtained from the FIRO-B Scale. The FIRO-B Scale reports a Wanted and Expressed dimension in three areas: Inclusion, Control, and Affection.

The data were analyzed using Analysis of Variance. The study found that Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers all scored within an internal direction on Rotter's I-E Scale with the Non-Abusive Drinkers tending toward a more external direction. This population also scored within an internal direction on the DRIE Scale with the Abusive Drinkers tending to score toward a more external direction. The FIRO-B data indicated that the Abusive Drinkers had lower scores in all areas. Combining the Expressed and Wanted dimensions, similar patterns emerged among the three drinking conditions. Affection, Inclusion, and Control scores were in a descending order with the Control score being significantly smaller than the other two scores. The Expressed dimension reveals similar patterns for the Abusive and Non-Abusive drinking groups with little variation between Inclusion and Affection but the Control score was significantly lower. The Non-Drinking group had higher

scores in the area of Control and identical mean scores for Inclusion and Affection. The Wanted dimension indicated lower total mean scores in Control for all drinking groups with Inclusion and Affection following in ascending order. The score for Wanted Affection is significantly greater than the other scores. The Non-Abusive drinking group had the greatest variability among the three scores and the Abusive drinking group had the least variability. In both the Expressed and Wanted dimensions, the Non-Abusive drinkers had the highest total mean scores whereas the Abusive drinkers had the lowest total mean scores. Between the two dimensions and among the three areas assessed, the scores are lower in Wanted Inclusion and Control and higher in Wanted Affection.

This study found differences in interpersonal needs among the three drinking groups studied. The Rotter and DRIE indicated that all groups scored in an internal direction suggesting that I-E directionality does not predict drinking behaviors. The Control factor was significantly lower on the FIRO-B among all three groups. The interaction of the other factors on the FIRO-B indicate that the need for Inclusion and Affection varies within the groups. This information suggests that the consumption of alcohol is influenced in accordance with the degree of needs, as measured by this instrument.

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

Information from a number of sources demonstrates that the extent and scope of alcohol abuse in the United States has reached epidemic proportions. In 1977 the United States Bureau of Census reported a national population of 216,232,000, including 152,089,000 persons who are 18 years of age or older. Out of the national population, the National Institute of Alcohol Abuse and Alcoholism in 1972 estimated the number of problem drinkers within the United States at between 9.3 and 10 million persons. In Oklahoma, the State Department of Mental Health estimates that there are approximately 190,786 persons who may be termed problem drinkers. Of this number, some 168,909 are adults and 21,877 are in their teenage years (1978).

There are high correlations between alcoholism and such factors as marital problems, accidents, deaths, juvenile delinquency, crime, and other social and demographic variables. Alcohol abuse is considered an extremely destructive behavior owing to its effects on the abuser physically, emotionally, and behaviorally. Alcohol abuse is also

related to social, medical, and economic factors, as well as to the availability of liquor.

There have been numerous studies to identify casual factors in the abuse of alcohol, with genetic, psychological, environmental, and nutritional elements generally accepted as the prime factors. Although a large body of information is available about abusive drinking and its contributory factors, no single factor has been identified as the precipitating one.

Treatments in working with the abusive drinker vary with the presenting symptom and the philosophy of the treatment facility or therapist. Most authorities are in agreement that a multi-model approach increases the probability of successfully treating the alcoholic patient.

The attitude of both the therapist and the patient toward alcohol use and abuse is critical to the treatment process. Attitude has been defined as "a relatively stable and enduring predisposition to behave or react in a certain way toward persons, objects, institutions, or issues...The sources of attitudes are cultural, familial, and personal... Social psychologists believe that important sources of adult attitudes are propaganda and suggestion from authority, business, educational institutions, and other agencies which seek to influence." (Chaplin, 1973)

Attitudes are formed as the individual receives, digests, and synthesizes information gained through life experiences. Therefore, an attitude can also be defined as an individual's reflection of personal feeling or expectation of one's beliefs or behavior. One method of determining individual attitudes is to use instruments reflecting individual beliefs or expectations about various behaviors and beliefs.

If one adopts the premise that an individual acts or reacts behaviorally in accordance with his attitude toward alcohol use, then the inference is that drinking behavior is learned behavior in accordance with acquired attitudes. This implies that the prevention or amelioration of abusive drinking is highly dependent on alcohol education programs which assist the patient in altering abusive drinking behavior and in understanding attitudes which lead to abusive drinking.

Many behavioral scientists and social investigators do not conceptualize behavior as following attitude formation, and therefore do not explore individual attitudes toward alcohol use. In the helping professions, which deal with the alcohol abuser and the accompanying emotional responses, it is important for those dealing with these problems to be sensitive and responsive as well as empathetic

and aware of the attitudes underlying the behavior. This is essential to a positive "doctor-patient" relationship, which is instrumental in the therapeutic process. The therapist must understand his own attitudes towards alcohol use, and he must be cognizant of beliefs and biases which may influence the therapeutic relationship. The therapist's awareness of the problem drinkers' characteristic attitudes as opposed to those of the non-problem drinker would facilitate the therapeutic process involving an alcohol abuser. Thus, there exists a need to delineate attitudes of the abusive drinker as contrasted with those of the non-abusive drinker and the abstainer.

This study concerns the attitudes toward alcohol among three groups: alcohol abusers, non-abusers, and abstainers. The study will hold further that understanding those specific attitudinal positions characteristic of each group studied will have a beneficial therapeutic effect, a necessary prerequisite for pervasive behavioral change.

Purpose of the Study

Although alcohol abuse is now considered a major social problem in the United States, attempts to control the sale of alcohol on both the national and local levels of government have been unsuccessful in preventing alcoholism. And while opinions vary as to causality and treatment of alcoholism

or abusive drinking, there is general agreement on the magnitude of difficulties engendered by abusive drinking. Most authorities agree that preventive measures are less costly and more effective in dealing with the attendant difficulties of alcohol abuse than is rehabilitation.

As information given to individuals assists in formulating attitudes, it is essential to study differences and similarities in beliefs and attitudes among groups of alcohol abusers, social drinkers (non-abusers), and non-users of alcohol. Through refinement of characteristic ideas or beliefs about ones'-self as contrasted with those of a given group, it is hoped that certain traits or general opinions will emerge on the factors contributing to abusive drinking, or on the factors which influence individuals to control their drinking behaviors.

Statement of the Problem

The purpose of this study is to investigate various attitudes held by three groups of drinkers: Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers, pertinent to internal-external control of their life and drinking behavior as measured by the Rotter Internal-External Scale and the Drinking Related Internal-External Scale (DRIE), respectively. It will also investigate interpersonal factors of Inclusion, Control (responsibility), and Affection as measured

by the Fundamental Interpersonal Relationship Orientation (FIRO-B). This study will look for relationships between the control measures on the one hand, and the scores of the FIRO-B scale on the other.

Definitions of Terms

ABUSIVE DRINKING: Consumption of alcoholic beverages to the extent that the blood alcohol level equals .05 or greater, and an individual is in conflict with the social system as a consequence of drinking alcoholic beverages.

NON-ABUSIVE DRINKING: Drinking of alcoholic beverages which does not manifest behavior requiring constraint of the law. Behavior generally believed to be indicative of problem drinkers was screened by a questionnaire (Johns Hopkins University). The purpose of the questionnaire is to eliminate individuals who are physically or psychologically dependent upon alcohol.

ABSTAINER OR NON-DRINKER: An individual who abstains from drinking alcoholic beverages.

LOCUS OF CONTROL: The degree to which an individual feels in control of his own life as measured by Rotter's Locus of Control Scale.

DRINKING-RELATED CONTROL: The degree to which an individual feels in control of drinking-related behavior as measured by Drinking-Related Internal-External Control Scale.

INTERPERSONAL RELATIONS: A person's characteristic behavior toward other people in the areas of inclusion, control, and affection.

CHAPTER II

Review of Literature

Researchers in the field of alcohol abuse have used a variety of approaches in the study of alcoholism, with most studies focusing primarily on social, psychological and physiological dimensions. Cultural influences also have been studied to assist in delineating those factors that influence drinking behaviors. These studies have assembled information on religious, cultural, and societal variations and have related these differences to drinking patterns.

Myerson (1940) compared alcoholism and its relationship to neuroses, depressive psychoses, and psychopathic states in Jewish people. He stated that the Jewish group had fewer alcoholics than other racial and cultural groups, and that women alcoholics were fewer in number than men. He concluded that social tradition and social pressure were all-important factors in the genesis of alcoholism. Bales (1946) and Glad (1947) compared Irish and Jewish drinking habits. Drinking of alcoholic beverages is prevalent in each of these societies, but the frequency and type of problem varies considerably. The religious and cultural disapproval of drunkeness is thought to be a constraint in

Jewish drinking patterns while Irish drinking patterns, in general, are more excessive. It is thought that weaker social controls, early socialization experiences with food and drink, and drinking purely for convivial reasons contribute to excessive drinking among Irish men.

Bacon, Barry and Child (1965) reported a cross-cultural study based on 139 societies. Using a factor analysis of variables, four clusters of measurements indicated these variations: 1. integrated drinking 2. quantity 3. inebriety 4. hostility. The integrated drinking factor included variables related to the use of alcohol in a ceremonial and ritualized context. The study also demonstrated that societies showing infrequent or low consumption of alcohol tend to be societies with a low incidence of conflict. This study related low conflict to the manner in which people typically:

1. Took care of the physical and emotional needs of their infants and children.
2. Used permissive rather than punitive methods of socialization.
3. Exerted relatively little socialization.
4. Tolerated dependent behavior in adulthood.
5. Engaged in communal eating.
6. Related folktales which tend to describe the world as essentially kind and friendly.

In viewing the reduction of conflicts or anxiety as related to low consumption of alcohol, it is interesting to consider Freud's theory of severe anal socialization and implications for use of alcohol. This theory postulates that precise, rigid, clean, neat, orderly adult personalities develop from rigid early childhood training. The consideration of loss of control through alcohol consumption could create anxiety too great to be tolerated; therefore, drunkeness would be avoided.

The Bacon, Barry and Child (1956) study relates the following characteristics of societies high in integrated drinking: generalized approval of drinking, widespread participation, and a high rate of alcohol consumption. In these societies a high rate of consumption is compatible with the positive social values and is not considered socially threatening.

Bacon (1973) contends that integrated drinking patterns are associated with organized social structure, pressures toward responsibility, and a low expectation of achievement. She states that a high incidence of integrated drinking is associated with pressures toward compliance (responsibility and obedience) rather than assertion (self-reliance and achievement).

Throughout these studies, there is concern with individual

behavior in relationship to socialization practices. There is persistent reference in the literature that the motivation for drinking is related to the reduction of anxiety.

Greenberg and Carpenter (1957) studied the galvanic skin response in humans after consumption of alcohol and concluded that moderate amounts of alcohol may reduce emotional tension. Horton (1943) felt that the reduction of anxiety was the primary function of alcohol in all societies. He studied the strength of the drinking response to the anxiety level and the counter anxieties which may accompany or result from drinking. He felt that the psychological state leading to drinking is anxiety, the rewarding or reinforcing effect of alcohol is anxiety-reduction, and the exacerbating cultural influence is subsistence insecurity. Horton used a sample of 56 societies of wide geographical distribution and made judgments about the degree of male insobriety on a three-point scale. The degree of acculturation of the society was used as a measure of generalized anxiety. Subsistence insecurity was measured by the level of insecure food supply and threats to the food supply. His data showed a significant positive association between measures of insobriety and subsistence insecurity. When the food supply was threatened, the men tended to drink at prolonged and higher levels of intoxication. This association became stronger when the degree of acculturation was

included in the anxiety measure. This study supports the general association between level of anxiety and male insobriety.

Studies attempting to isolate the role of ethanol (alcohol) in the reduction of anxiety or internal conflict have extended to creating "alcoholism" in experimental animals by exposing them to situations involving noxious stimuli or stress. Masserman and Yum (1946) reported that cats consuming ethanol showed a reduction in the severity of pathological behavior evoked by a conflict situation in which an attempt to obtain food caused the animal to receive a blast of air in its face. Lester (1966) reviewed many animal studies and found these studies did indicate that stressed animals increased their intake of alcohol solution; however, there was no evidence that most of them consumed enough to obtain a significant pharmacological effect. The increased consumption was correlated in a consistent manner with the timing of exposure to stress, or that the increase persisted in a manner suggestive of psychological dependence. According to Kalant and LeBlanc (1971), studies indicate that animals do not depend on the pharmacological effect of alcohol as reinforcing psychological dependence or reducing stress. Although highly questionable in their ability to formulate generalizations about humans, it seems that laboratory studies of animals support

studies of the importance of social influence and the individual interpretation of these clues.

Another prevalent theme concerning anxiety and alcohol is the idea that drinking behavior is related to the psychological state of dependence. Fenichel (1954) observes that individuals suffering from alcoholism have represented drinking as a regression to an infantile level of oral gratification. Lolli (1956) describes the alcoholic as characteristically longing for the dependent state of infancy at the same time that he wishes for self-respect and independence. McCord and McCord (1960) present data on a longitudinal study of a group of alcoholics and offer a dependency-conflict interpretation of their findings. Bacon (1973) observed that a drinking situation may permit temporary resolution of dependency-conflicts by permitting simultaneously the reduction of anxiety, the expression of dependent needs, and the enjoyment of fantasies of achievement and success of the sort valued by society. Resolution of the conflict may then operate as a reinforcement to drinking behavior.

Retrospective studies indicate that social reasons emerge most frequently as contributory factors in the increase or decrease of drinking behavior. According to McCarthy (1959), women tend to attribute social pressures as influencing or affecting their drinking behavior while

social pressure was much less of an influence among male subjects studied.

Another area of research receiving a great deal of attention concerns a loss or lack of control over drinking behavior. The primary measure of control employed in these studies has been Rotter's Internal-External (I-E) Locus of Control Scale. Persons having an internal locus of control, according to scores on the I-E Scale, are described as perceiving personal events as contingent on their own behavior. Persons having an external locus of control are assumed to perceive the outcome of such events as beyond their personal control, being determined instead by such factors as fate, chance or powerful others. To someone having an external locus of control, problem drinking might be viewed as an event external to his ability to set effective limits to his behavior.

Studies comparing internally controlled behavior with externally controlled behavior present varied and often conflicting findings. Naditch (1975) reported that the scores of problem drinkers reflect an external locus of control as compared with the internal locus of control of social drinkers or abstainers. Goss and Morasko (1970) reported that alcohol abusers were more internally controlled than non-abusers. Obitz and Swanson (1976) reported that women alcoholics were significantly more external on Rotter's

Internal-External Control Scale and the Drinking-Related Control Scale than women social drinkers, who tended to be more internal. Oziel, Obitz and Keyson (1972) report that all alcoholics perceive themselves to be in control of their behavior in general and of their drinking behavior in particular. It is interesting to note that Butts and Chotlos (1973) report diametrically opposite findings. They found that alcoholics showed significantly more external control than non-alcoholics. They concluded that there was a significant correlation between the Rotter I-E scores and social-economic status, and that the differences implied a need to set up controls for socio-economic status and age when using the I-E scale. Naditch (1975) studied the relationship between I-E control and drinking behavior in men. He found an increase in external control with increased drinking behavior. Harrow and Ferrante (1969) found that alcoholics with an internal locus of control experienced a significantly greater magnitude of control over both interpersonal and intrapersonal sources of pressure or stress than did externally controlled alcoholics. They further reported that an external locus of control was associated with psychopathology. Harrell (1976) studied the self-concept of alcoholics during the process of abstinence. He found that abstainers and non-abstainers scored consistently toward an internal locus of control. Abstainers did

move significantly in a positive direction with regard to self-esteem. Non-abstainers showed negative movement in terms of self-esteem.

Donald Gerard (1955) discusses personality and social factors in intoxication and addiction. He states that alcohol can have a symbolic and pharmacological context in diminishing awareness of "primary" drives or of tension: the alcoholic attains a regressive state which will diminish bodily tension. The second characteristic discussed is that of isolation. Chronic alcoholics were said to derive pharmacological satisfaction in that they are able to give themselves the satisfaction with alcohol that they do not derive from others.

The third area discussed is sexual organization and life. Alcoholics are said to be individuals whose psychosexual development is arrested at a pregenital level. The fourth area is marked conflict as concerned with poorly sublimated dependency wishes. The fifth characteristic discussed is masochism. Alcoholics frequently suffer insult, injury, loss of social status, depression and social rejection. The alcoholic not only harms himself but wishes to punish introjected parent figures for real or fantasied infantile or childhood domination, seduction, or frustration. The social situation is important in determining whether a person with the personality characteristics described will become an abuser of alcohol.

Alfonso Paredes (1974) studied the supportive networks for the alcoholic. He reported that many alcoholics maintain an inaccessibility that shields them and leaves them free to engage in deviant drinking. He cites disaffiliation from families, frequent address changes, temporary jobs, and communities of heavy drinkers with their own social structure and norms as maneuvers used by the alcoholic to support drinking habits. He further discusses the alcoholic's ability to control his drinking patterns. He states "the closer the man comes to being exposed to conventional social demands, the more likely he is to drink. When life is considerably structured for him, as is the case in hospitals, missions, or halfway houses, he is less likely to drink even if alcohol is accessible." It seems that Paredes implies that a lack of understanding of societal demands and how it affects alcoholics has been ignored by many treatment approaches. He states that: "Even in the late stages of the disease, the alcoholic's dependence on alcohol is not absolute. The need for alcohol is not compelling if the social demands placed on him are structured and restricted, as is done in institutional settings." "The alcoholic has already been victimized by a great deception: he does not need alcohol after all, providing he lives within a simplified social matrix designed for him."

There are suggestions that social pressures and expectations are important variables to consider in abusive drinking patterns. Considering the vast social changes, roles, and expectations that have occurred and are occurring, the incidence of abusive drinking can be expected to increase. A great deal of information concerning alcohol and abusive drinking patterns is available. Perhaps of greatest benefit at this time are available descriptive behaviors that describe abusive drinking habits that are developing or that have been developed. Successful treatment programs describe their goals and treatment; but program duplication does not produce equal results. It seems clear that more research is needed to assist individuals in identifying those behaviors or beliefs that are conducive to abusive drinking behaviors. If attitudes can be delineated that indicate tendencies toward abusive drinking patterns or attitudes that are suggestive of behaviors leading to social drinking patterns or abstinence from drinking, preventive programs can be highly successful.

Review of the literature does not indicate that the proposed study has been done. It is considered to be of paramount importance that practitioners in the helping professions have available to them information that assists in identifying attitudes or characteristics of various drinking patterns, and particularly abusive drinking.

CHAPTER III

Design of Study

$H_0 1$ There is no difference in the scores on internal-external control among Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers, as measured by Rotter's Internal-External Locus of Control Scale and a Drinking Related Control Scale.

$H_0 2$ There is no difference between perceived control of life (Rotter's I-E Locus of Control Scale) and interpersonal needs, as measured by FIRO-B among Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers.

$H_0 3$ There is no relationship between perceived control of drinking (Drinking Related Control Scale) and interpersonal needs (FIRO-B) among Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers.

Method of Study

Subjects: The subjects for this study were randomly selected from a population of Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers. The size of each group was 38 males, which is considered large enough to be representative of the population and small enough to be practicable. The data were analyzed by means of analysis of variance.

Abusive drinkers were obtained from the district attorney's special program for prevention of alcohol abuse, as related to "driving under the influence" arrests. This program consists of four levels. Level one involves those individuals charged before the county court for the first time. It is noted that although the law states that city municipalities are to refer second-time offenders to the county court, in general this law is arbitrary. Therefore, this group may vary from offenders with multiple arrests to first-time offenders (arrested by the Highway Patrol). At Level I, the offender is charged with a misdeameanor and given a choice of jail time or a course for DUI offenders. At Level II (second time DUI), the offender is charged with a misdemeanor. Jail time is recommended by the DA. At Level III (third DUI), the offender is charged with a felony and given a choice of a probated sentence or special conditions, which consist of alcohol treatment within a designated facility. At Level IV (fourth DUI), at the DA's discretion, the offender is sent to prison. The approximate number of offenders processed by this department within one month is 200. Subjects for this study were Level I offenders.

The Non-Drinking group was obtained from a religious group. Individuals within this group have stated that they abstain from drinking. Non-abusive (social) drinkers were

obtained from various sources. The individual participants were asked if drinking habits fell within limits of 1-2 times a week without intoxication and with no behaviors related to alcohol that have required the restraint of the law.

Instruments

Rotter's Internal-External Locus of Control Scale (1966)

This instrument consists of 29 pairs of statements (external paired with internal). One point is given for each external statement selected. Scores can range from zero (most internal) to 23 (most external). The scale is self-administered and can be completed in about 15 minutes. No upper or lower age limits have been established. Rotter (1966) used a sample of 400 subjects, 200 for each sex, to establish correlations. An internal consistency coefficient (Kuder-Richardson) of .70 was obtained with a r of .60 for males and .83 for females.

Drinking-Related Locus of Drinking Control Scale (DRIE)

This scale was patterned after the Rotter Scale in regard to number of items, forced-choice format, and the type of scoring. It is hoped that a greater degree of predictive power related to drinking situations is achieved. The scale translated generalized perceived locus of control into specific

perceived locus of control with regard to drinking. Such items were included as: (a) there is no such thing as an irresistible temptation to drink; (b) many times there are circumstances that force you to drink. A low score indicates an internal control orientation. The DRIE Scale consists of 29 items, pairing an alternative indicative of internal locus of control with an alternative indicative of external locus of control.

FIRO-B (Fundamental Interpersonal Relations Orientation-Behavior)

The test is self-administered and usually takes from ten to twenty minutes to complete. It is designed for the seventh grade and above, and has a total of 54 questions answered by 1 to 6. A Coefficient of Internal Consistency (Reproducibility) is .94 and the Coefficient of Stability (Test-Retest) is .76. The FIRO-B measures a person's characteristic behavior toward other people in the areas of inclusion, control, and affection. It is designed not only to measure individual characteristics but also to assess relationships with other people, such as compatibility.

The author claims the theory on which this test was designed indicates three interpersonal need areas: inclusion, control and affection, which are alleged to be sufficient for the prediction of interpersonal behavior. Orientations

which an individual acquires toward behavior in these areas are relatively invariant over time. Compatibility of two or more persons depends on (a) their ability to satisfy reciprocally each other's interpersonal needs, (b) their complementarity with respect to originating and receiving behavior in each need area, and (c) their similarity with respect to the amount of interchange they desire with other people in their need area.

Every interpersonal relation follows the same general developmental sequence. It starts with inclusion behavior, is followed by control behavior, and finally affection behavior. This cycle may recur. When the relationship approaches termination, it reverses direction, and investment from the relationship is withdrawn in the order of affection, control, and inclusion.

An analysis of the data was computed as follows:

1. The Rotter data was computed as follows:
   A one-way analysis of variance for I-E scores
2. The DRIE data was computed as follows:
   A one-way analysis of variance for total score
3. A table of intercorrelations of 13 variables: age, 10 FIRO-B variables, DRIE, Rotter for Non-Drinkers
4. A table of intercorrelations of 13 variables: age, 10 FIRO-B variables, DRIE, Rotter for Non-Abusive Drinkers

5. A table of intercorrelations of 13 variables: age, 10 FIRO-B variables, DRIE, Rotter for Abusive Drinkers
   a. For ANOVA's post hoc comparisons will be made where appropriate
   b. A table of means and standard deviations will be computed for each ANOVA
6. A three factor analysis of variance with repeated measures on two factors of the FIRO-B (Expressed-Wanted) and (Inclusion, Control, Affection).
7. A two factor analysis of variance with repeated measures for the sums of inclusion, control, and affection.
8. A one-way analysis of variance with the sum of the FIRO-B scores

CHAPTER IV

Results

The interaction among the drinking groups is varied, presenting a complex picture for H_o1. The null hypothesis states: There is no difference in the scores on internal-external control among abusive drinkers, non-abusive drinkers, and non-drinkers, as measured by Rotter's Internal-External Locus of Control Scale and a Drinking Related Control Scale. Tables 1 through 4 show the means, standard deviations, and summaries of ANOVAs pertaining to H_o1.

Owing to statistically significant differences in the scores, the null hypothesis is rejected. Examination of the means reveals different patterns between the two instruments and the three groups, Non-Abusive drinkers scoring highest on the Rotter and Abusive drinkers highest on the DRIE.

Means and Standard Deviation for Rotter I-E Scores for the three Alcohol Use Categories are summarized in Table 1.

Table 1: Rotter I-E Score Means and Standard Deviations for Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

	Alcohol Use Category		
	Non-Drinkers (N-38)	Non-Abusive Drinkers	Abusive Drinkers (N-38)
Mean	4.82	8.00	6.61
S.D.	2.84	3.69	3.90

The most externally controlled appears to be the Non-abusive Drinkers followed by the Abusive Drinkers, which in turn is followed by Non-Drinkers who have a mean which must be considered as internally controlled. In order to determine if these observed differences are in fact real, a one Factor Independent groups analysis of variance was computed (Table 2). Results of this analysis provided a significant outcome ($F=7.66$; 2/111 df; p. 0011). Again Tukey's post hoc comparison test was computed to determine which pairs of means differ from one another. This test indicated that any difference equal to or larger than 1.94 is significant at the .05 level. Applying this standard only the difference between the mean for Non-Abusive Drinkers (8.00) and Non-Drinkers (4.82) was significant at the .05 level.

Table 2: Summary Table for One Factor (Alcohol Use Category) Independent Groups Analysis of Variance of Rotter I-E Scores.

Source	SS	df	MS	F	P
Alcohol Use Category	193.63	2	96.82	7.66	.0011
Error	1402.79	111	12.64		

Data from the DRIE scale are summarized in Table 3. From a brief inspection of these data it would appear that the means for the Non-Drinkers and Non-Abusive Drinkers are rather similar but the mean for Abusive Drinkers is somewhat higher. An interesting aspect of Table 3 is the larger standard deviation compared to a rather small mean for the Non-Drinker condition. This is caused by the fact that only five scores (14, 4, 9, 6, and 3) of the thirty-eight scores are 3 or larger.

Table 3: DRIE Means and Standard Deviations for Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

	Alcohol Use Category		
	Non-Drinkers (N-38)	Non-Abusive Drinkers (N-38)	Abusive Drinkers (N-38)
Mean	1.47	1.55	4.11
S.D.	2.93	1.83	3.72

In order to compare DRIE scores for the three Alcohol Use Categories, a one factor independent group analysis of variance was used. Data from this analysis is summarized in Table 4.

Table 4: Summary Table for One Factor (Alcohol Use Category) Independent Groups Analysis of Variance of DRIE Scores.

Source	SS	df	MS	F	P
Alcohol Use Category	170.33	2	85.17	9.66	.0003
Error	978.45	111	8.81		

The overall F, as expected is significant (F=9.66; 2/111 df; p .0003). To compare pairs of means, Tukey's post hoc comparison procedure was used. From this procedure it was determined that any difference equal to or larger than 1.62 would be significant at the .05 level. It is apparent that statistical support is lended to the observation made earlier: the means for the Non-Drinker and Non-Abusive Drinker DRIE scores do not differ from one another but the Abusive Drinker Mean differs from both. A rank ordering of the mean DRIE scores among the three drinking groups from more external to more internal scores is Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers.

To test hypotheses 2 and 3, data from thirteen variables were accumulated for 114 male subjects comprising three equal sized alcohol use categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers. As an initial descriptive examination of these data, intercorrelations were computed among these thirteen variables separately for each sample. Results from these analyses are summarized in Tables 5, 6, and 7. You will notice that each table is divided by a diagonal line of dashes running from the upper left hand to the bottom right hand corner. The upper right hand portion of the matrix is the result of each variable correlated with every other variable representing a total of 78 correlation coefficients. In the lower left hand portion of the table only those correlation coefficients are reprinted that were statistically different from a zero correlation at the .05 significance level, i.e. any correlation coefficient .312 or larger. Notice that at the bottom of each of the thirteen columns representing each variable the mean and standard deviation is reported.

$H_0 2$, which states that there is no relationship between perceived control of life (Rotter's I-E Locus of Control Scale) and interpersonal needs, as measured by FIRO-B, among abusive drinkers, non-abusive drinkers, and non-drinkers is accepted due to no significant relationships between these variables.

The $H_0 3$ of no correlation between perceived control of drinking (Drinking Related Control Scale and interpersonal needs (FIRO-B) among abusive drinkers, non-abusive drinkers, and non-drinkers is accepted.

The correlations are clearly presented in Tables 5, 6, and 7. It seems important to point out several interesting aspects of the intercorrelation pattern for each of the three treatment groups. In Table 5 there is a correlation of .57 between DRIE and Rotter scores. It is interesting, however, that neither of these variables correlate significantly with age or any FIRO-B measure. For the Non-Abusive Drinker (Table 6) a somewhat different pattern is noticed. Again no FIRO-B measure is correlated with either DRIE of Rotter scores. The pattern of intercorrelations for the Abusive Drinker (Table 7) reveals still a different picture than the other two samples though there is some similarity with the Non-Drinker and Non-Abusive Drinker samples since again neither DRIE or Rotter scores correlated with any FIRO-B measure. Also, like the Non-Abusive Drinker sample, DRIE and Rotter scores did not correlate significantly. An interesting low significant negative correlation is that between age and Rotter (-.36).

Table 5: Intercorrelations Between Age, 10 FIRO-B Measures, DRIE, and Rotter for Non-Drinkers (N=38)

	AGE	E I	W I	E C	W C	E A	W A	SUM I	SUM C	SUM A	SUM TO	DRIE	ROTTER
Age		-.13	-.16	-.12	.19	-.21	-.08	-.17	.02	-.16	-.16	.03	-.11
E-I			.41	.43	-.15	.48	.53	.78	.26	.56	.76	-.05	-.01
W-I		.41		.11	-.14	.29	.45	.89	.00	.42	.66	.12	.16
E-C		.43			-.07	.31	.11	.28	.78	.23	.51	.17	-.01
W-C						-.16	.05	-.17	.57	-.06	.07	.08	-.08
E-A		.48					.61	.44	.16	.89	.73	.27	.20
W-A		.53	.45			.61		.58	.12	.91	.79	.05	.05
Sum I		.78	.89			.44	.58		.13	.57	.83	.06	.10
Sum C				.78	.57					.16	.47	.19	-.06
Sum A		.56	.42			.89	.91	.57			.85	.17	.14
Sum To		.76	.66	.51		.73	.79	.83	.47	.85		.18	.11
DRIE													.57
Rotter												.57	
Mean	34.84	4.58	3.97	4.92	3.34	4.58	5.42	8.55	8.26	10.00	26.82	1.47	4.82
SD	11.30	2.24	3.12	2.47	1.88	2.54	2.75	4.53	3.00	4.75	9.18	2.93	2.84

Table 6: Intercorrelations Between Age, 10 FRIO-B Variables. DRIE, and Rotter for Non-Abusive Drinkers (N=38)

	AGE	EI	WI	EC	WC	EA	WA	SUMI	SUMC	SUMA	SUMTO	DRIE	ROTTER
Age		-.32	-.44	-.11	-.17	-.37	-.02	-.47	-.18	-.21	-.39	-.26	-.15
E-I			.32	.32	.13	.66	.18	.72	.31	.49	.68	.23	-.16
W-I	-.44			.15	.24	.43	.48	.89	.25	.51	.75	.07	.05
E-C					.14	.11	-.02	.26	.83	.09	.48	.10	.03
W-C						.21	-.00	.24	.68	.09	.41	.00	.15
E-A	-.37	.66	.43				.54	.64	.20	.89	.78	.13	-.01
W-A			.48			.54		.44	-.01	.84	.58	-.17	-.18
Sum I	-.47	.72	.89			.64	.44		.33	.61	.88	.16	-.04
Sum C				.83	.68			.33		.12	.59	.03	.06
Sum A		.49	.51			.89	.84	.61			.78	-.01	-.07
Sum To	-.39	.68	.75	.48	.41	.78	.58	.88	.59	.78		.09	-.03
DRIE													.17
Rotter													
Mean	32.84	4.66	5.11	3.50	3.32	4.42	5.95	9.76	6.82	10.26	26.94	1.55	8.00
SD	11.65	2.23	3.34	2.60	1.99	2.42	2.27	4.57	3.49	4.10	2.31	1.83	3.69

Table 7: Intercorrelations Between Age, 10 FRIO-B Measures, DRIE, and Rotter for Abusive Drinkers (N=38)

	AGE	E I	W I	E C	W C	E A	W A	SUM I	SUM C	SUM A	SUM TO	DRIE	ROTTER
Age		-.15	-.31	-.01	-.03	.23	.11	-.26	-.03	.16	-.07	.05	-.36
E-I			.63	.54	-.16	.56	.51	.88	.27	.60	.77	-.25	-.21
W-I		.63		.58	.10	.50	.55	.92	.47	.61	.05	-.13	.08
E-C		.54	.58		.09	.64	.41	.63	.76	.57	.78	.01	-.24
W-C						-.01	-.09	-.01	.72	-.09	.18	.30	.16
E-A		.56	.50	.64			.59	.57	.43	.87	.77	-.09	-.29
W-A		.51	.55	.41		.59		.58	.22	.91	.73	-.15	-.22
Sum I		.88	.92	.63		.57	.58		.43	.66	.90	-.20	-.06
Sum C			.47	.76	.72	.43		.43		.35	.67	.21	-.06
Sum A		.60	.61	.57		.87	.91	.66	.35		.05	-.14	-.26
SUM To		.77	.85	.78		.77	.73	.90	.67	.85		-.09	-.15
DRIE													.28
Rotter	-.36												
Mean	33.13	3.26	2.79	2.39	2.95	3.37	3.66	6.00	5.34	6.95	18.29	4.11	6.61
SD	11.95	2.58	3.37	2.32	2.19	2.15	2.89	5.34	3.33	4.45	10.79	3.72	3.90

The FIRO-B data appeared to offer additional information concerning specific interpersonal needs among the three drinking groups. Tables 8 through 17 summarize five separate analyses of FIRO-B data. The first is an attempt to maximize differences between all treatment combinations of the 2x3 scoring matrix of FIRO-B responses for the three alcohol treatment conditions. The second and third analyses are simply attempts to reduce data from the first analysis to two (2) factor analysis of variance: one for expressed and one for wanted responses. The fourth analysis represents a collapsing or combining of expressed or wanted responses for each of the FIRO-B Dimensions (I-C-A) and comparing them across the three alcohol treatment conditions by a two factor analysis of variance. The final FIRO-B analysis was a one factor analysis of variance of total responses among the three alcohol treatment conditions. The next five paragraphs specifically speak to each of these analyses.

Data summarized in Table 8 represents the maximum breakdown of FIRO-B component scores for analysis. An inspection of these data reveals that treatment combination means vary from 2.39 to 5.95 and standard deviations vary from 1.88 to 3.37. In order to sort out the many comparisons possible among the 18 treatment combinations formed from this 3x3x2

Table 8: Means and Standard Deviations for FIRO-B Scores from the Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

Alcohol Conditions		FIRO-B Measure E I	E C	E A	Total E Mean	W I	W C	W A	Total W Mean	Total Mean
Non Drinkers (N=38)	Mean	4.58	4.92	4.58	4.69	3.97	3.34	5.42	4.28	4.47
	S.D.	2.24	2.47	2.54		3.12	1.88	2.75		
Non-Abusive Drinkers (N=38)	Mean	4.66	3.50	4.42	4.19	5.11	3.32	5.95	4.79	4.49
	S.D.	2.23	2.60	2.42		3.34	1.99	2.27		
Abusive Drinkers (N=38)	Mean	3.26	2.39	3.37	3.01	2.79	2.95	3.66	3.13	3.07
	S.D.	2.58	2.32	2.15		3.37	2.19	2.89		
Total Means		4.17	3.60	4.12	3.96	3.96	3.20	5.01	4.06	4.01

Total	I	C	A
Means	4.06	3.40	4.57

factorial design an analysis of variance was computed. Specifically, a three factor Mixed Design with one Between and two Within Independent Variables was employed. The Between Variable was Alcohol Use Categories which had three levels: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers. The two Within Variables were Expressed vs Wanted responses and FIRO-B Dimensions (I, C, and A). Results from

this analysis are summarized in Table 9. The triple interaction was significant ($F=2.83$; 4/222 df; $p < .025$). One way of looking at this interaction is to examine the interplay of the two Within Variables at each level of the Between Variable. This is accomplished by first examining the different patterns of means within the three rows of means in Table 8, then examining the patterns within the columns of the same table. Comparison of any 2 means by a Tukey's post hoc comparison procedure is significant at the .05 level if the difference is 1.54 or larger. Within the Non-Drinkers groups (row one) two comparisons of importance exceed the critical difference of 1.54 for significance: wanted control versus wanted affection ($3.34 < 5.42$) and expressed versus wanted control ($4.92 > 3.34$). For the Non-Abusive group (row two) wanted inclusion and affection means are larger than wanted control but they do not differ from one another ($4.66 = 4.42 > 3.50$). Also expressed and wanted affection means differ significantly for Non-Abusive Drinkers ($4.42 < 5.95$). No differences between pairs of means within the Abusive Drinker groups existed (row three). Between groups comparisons were achieved by examining pairs of means within columns. Significant differences were found in three columns: the expressed control mean for the Non-Drinker group was larger than the expressed control mean for the Abusive Drinker group ($4.92 > 2.39$); the wanted inclusion

mean for the Non-Abusive Drinker group was larger than that for the Abusive Drinker group (5.11 > 2.79); and, the wanted affection means for the Non-Drinkers and Non-Abusive Drinkers were both larger than the wanted affection mean for Abusive Drinkers (5.42 = 5.95 > 3.66). It is obvious therefore that significant triple interactions often present very complex relationships.

Table 9: Summary Table for 3x3x2 Mixed Design Analysis of Variance with One Between (Alcohol Use Category) and Two Within (I-C-A and E-W) Independent Variables for FIRO-B Responses.

Source		SS	DF	MS	F	P
Alcohol Use Category	(ALC GP)	302.28	2	151.14	9.16	.0004
Error		1831.81	111	16.50		
E-W		1.40	1	1.40	0.27	.6134
ALC GP x E-W		31.14	2	15.57	2.95	.0550
Error		586.29	111	5.28		
I-C-A		154.90	2	77.45	13.71	.0001
ALC GP x I-C-A		42.44	4	10.61	1.88	.1140
Error		1253.99	222	5.65		
E-W x I-C-A		55.14	2	27.57	7.72	.0009
ALC GP x E-W x I-C-A		40.48	4	10.12	2.83	.0251
Error		793.04	222	3.57		

In an attempt to possibly simplify the complexity of the interaction represented in Table 9 it was decided to look at expressed and wanted responses separately. Table 10 summarizes the FIRO-B Dimension expressed scores for the three Alcohol Use Categories. It should be noted that values in this table are the same as the left one half of Table 8. When these data were submitted to a 3x3 Factorial Analysis of Variance with one Between (Alcohol Treatment Conditions) and one Within (I-C-A) independent variable both main effects were significant and the interaction between the two variables was non significant (Table 11). Comparing pairs of means for the significant main effect for the I-C-A variable by Tukey's post hoc comparison procedure any difference greater than .58 is significant at the .05 level. This criterion indicated I and A means are almost significantly different from the C mean (4.17 = 4.12 > 3.60), but fall short by .01. A difference of 1.05 is required for differences between pairs of alcohol usage group means at the .05 level applying Tukey's test. Doing this, it was determined that the FIRO-B Expressed scores for Non-Drinker and Non-Abusive Drinker group means were larger than the Abusive Drinker group (4.69 = 4.19 > 3.01). The other half of Table 8, the FIRO-B Wanted dimensions is repeated in Table 12. These data were also submitted to a 3x3 Factorial Analysis

Table 10: Means and Standard Deviations for FIRO-B Expressed Dimension (I, C, and A) Scores for Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

Alcohol Condition		FIRO-B Dimension I	C	A	Total Mean
Non-Drinkers (N=38)	Mean	4.58	4.92	4.58	4.69
	S.D	2.24	2.47	2.54	
Social Drinkers (N=38)	Mean	4.66	3.50	4.42	4.19
	S.D.	2.23	2.60	2.42	
Abusive Drinkers (N=38)	Mean	3.26	2.39	3.37	3.01
	S.D.	2.58	2.32	2.15	
	Total Mean	4.17	3.60	4.12	3.96

Table 11: Summary Table for 3x3 Mixed Design Analysis of Variance with one Between (Alcohol Use Category) and one Within (I-C-A) Independent Variable for Expressed FIRO-B Responses.

Source	SS	df	MS	F	P
Alcohol Use Cat. (ALC GP)	170.58	2	85.29	7.69	.0011
Error	1230.33	111	11.08		
I-C-A	22.23	2	11.11	3.33	.0365
ALC GP x I-C-A	30.88	4	7.72	2.31	.0578
Error	741.56	222	3.34		

Table 12: Means and Standard Deviations for Wanted FIRO-B Dimensions (I, C, A) Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

Alcohol Condition		FIRO-B Dimension I	C	A	Total Mean
Non-Drinkers (N=38)	Mean	3.97	3.34	5.42	4.28
	S.D.	3.12	1.88	2.75	
Non-Abusive Drinkers	Mean	5.11	3.32	5.95	4.79
	S.D.	3.34	1.99	2.27	
Abusive Drinkers (N=38)	Mean	2.79	2.95	3.66	3.13
	S.D.	3.37	2.19	2.89	
	Total Mean	3.96	3.20	5.01	4.06

of Variance Mixed design with one Between (Alcohol Use Category) and one Within (FIRO-B Wanted Dimensions) independent variable. Results of this analysis are summarized in Table 13. Notice that the main effects for Alcohol groups ($F=7.61$; 2/111; $p < .0011$), and I-C-A ($F=15.97$; 2/222, $p < .0001$) are significant but the interaction between these two variables is not. Applying Tukey's post hoc comparison test to the 3 alcohol treatment group means for the wanted dimension any difference between pairs of means of 1.03 or greater is significant at the .05 level. Therefore, the Non-Drinkers

Table 13: Summary Table for 3x3 Mixed Design Analysis of Variance with One Between (Alcohol Use Category and One Within (I-C-A) Independent Variable for Wanted FIRO-B Responses.

Source	SS	df	MS	F	P
Alcohol Use Cat. (ALC GP)	162.85	2	81.42	7.61	.0011
Error	1187.76	111	10.70		
I-C-A	187.81	2	93.91	15.97	.0001
ALC GP x I-C-A	52.05	4	13.01	2.21	.0676
Error	1305.47	222	5.88		

and Non-Abusive Drinkers have larger means than the Abusive Drinkers (4.28 = 4.79 > 3.13). Similarly, applying Tukey's test to the I-C-A means required a difference of .76 or greater between any two pairs of means to be significant at the .05 level. Applying this criteria the mean for control is significantly lower than the mean for inclusion which is lower than the mean for affection (3.20 < 3.96 < 5.01).

In an attempt to simplify further, expressed and wanted responses within each combination of Alcohol Use Category and FIRO-B Dimensions were summed. Results of these data are summarized in Table 14. Results from a 3x3 Factorial Mixed Design Analysis of Variance are summarized in Table 15. Both main effects, alcohol groups and I-C-A, are significant

($F=9.39$, $2/111$, $p < .0004$) and ($F=13.09$, $2/222$, $p < .0001$) respectively. Applying Tukey's post hoc comparison test to treatment means for the Alcohol groups resulted in a significant difference at the .05 level for any pair of means in which the difference was 1.80 or larger. Using this criterion the means for the Non-Drinkers and Non-Abusive Drinker groups were significantly larger than the mean for the Abusive Drinker group ($8.94 = 8.95 > 6.10$). In a similar manner Tukey's test was used to compare the I-C-A means and a

Table 14: Means and Standard Deviations for Combined Expressed and Wanted Responses for FIRO-B Dimensions (I, C, and A) for three Alcohol Use Categories: (Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers).

Alcohol Condition		FIRO-B Dimension I	C	A	Total Mean
Non-Drinkers (N=38)	Mean	8.55	8.26	10.00	8.94
	S.D.	4.52	3.00	4.75	
Non-Abusive Drinkers	Mean	9.76	6.82	10.26	8.95
	S.D.	4.57	3.49	4.10	
Abusive Drinkers (N=38)	Mean	6.00	5.34	6.95	6.10
	S.D.	5.34	3.33	4.45	
	Total Mean	8.11	6.81	9.07	7.99

significant difference at the .05 level between any pair of means was established if the difference was 1.05 or larger. Applying this criterion Inclusion and Affection Means were significantly larger than the Control mean (8.11 - 9.07 > 6.81).

Table 15: Summary Table for 3x3 Mixed Design Analysis of Variance with One Between (Alcohol Use Category) and One Within (I-C-A) Independent Variable for Combined Expressed and Wanted FIRO-B Responses.

Source	SS	df	MS	F	P
Alcohol Use Category	615.80	2	307.90	9.39	.0004
Error	3641.53	111	32.81		
SU ICA	294.06	2	147.03	13.09	.0001
ALC GP x SU ICA	84.98	4	21.24	1.89	.1118
Error	2493.63	222	11.23		

As a final summarizing analysis Total FIRO-B responses for each of the three Alcohol Use Categories were compared by a one factor independent group analysis of variance. Table 16 summarizes the means and Standard Deviation of Total FIRO-B scores for the three Alcohol Use Category. An inspection of Table 16 reveals that the Non-Drinker and Non-Abusive Drinker means are almost identical while the Abusive Drinker group is somewhat smaller. A comparison of these

Table 16: Total FIRO-B Score Means and Standard Deviations for Three Alcohol Use Categories: Non-Drinkers, Non-Abusive Drinkers, and Abusive Drinkers.

	Alcohol Use Category		
	Non-Drinker (N=38)	Non-Abusive Drinker (N=38)	Abusive Drinker
Mean	26.82	26.84	18.29
S.D.	9.18	9.31	10.79

Table 17: Summary Table for One Factor (Alcohol Use Category). Independent Groups Analysis of Variance of Total FIRO-B Scores.

Source	SS	df	MS	F	P
Alcohol Use Category	1847.39	2	923.69	9.39	.0004
Error	10924.58	111	98.42		

groups by analysis of variance is summarized in Table 17. The overall alcohol treatment effect is significant ($F=9.39$; $2/111$; $p < .0004$). Tukey's post hoc comparison procedure was applied to differences between pairs of means; any difference of 5.41 or larger is significant at the .05 level. The means for the Non-Drinker and Non-Abusive Drinker condition

do not differ from one another and the Abusive Drinker Condition mean is significantly lower than both of them (26.82 = 26.84 > 18.29).

In summary, the data were analyzed to test differences in the Expressed (active) and Wanted (passive) positions among the three drinking groups. The Expressed Dimension (active) for this population indicated that the Non-Drinkers had greater scores with Non-Abusive Drinkers and Abusive Drinkers following in descending order. The Expressed Control dimension was significantly different in the Non-Drinker and Abusive group (Table 18). No significant differences were found among the three groups (Total Mean) in the Inclusion and Affection dimensions (Tables 10 and 11) but both differed (greater scores) from the control score.

The Wanted data (passive position) was analyzed with the following results. The Non-Abusive Drinkers had the greatest total mean of scores with Non-Drinkers and Abusive Drinkers following. A statistical difference was found for Affection, Inclusion, and Control in that order with Control significantly lower (Table 12).

The combined Expressed and Wanted means for all drinking groups suggest that the Abusive Drinker demonstrates lower scores in regard to Control, Inclusion and Affection in ascending order (Table 14). The Affection dimension for all groups combined is higher than Inclusion, and significantly higher than Control (Table 14).

Control of life (Rotter's I-E) and control of drinking (DRIE), as measured, reflect an internal direction for all three groups. The Non-Abusive drinker did tend to reflect a tendency of less internality on the Rotter Scale with the Abusive drinking group reflecting less internality on the DRIE Scale. This study suggests that the factor of perception and control as related to general life situations and to consumption of alcohol does, in part, contribute to individual drinking habits. It is inconclusive as to the extent of influence it has in perpetuating, extending or maintaining drinking habits.

In all groups, the areas that statistically differed was FIRO-B control with the Abusive Drinkers reflecting the lowest scores in a passive position. The Wanted (Passive) scores reflect Affection as being significantly higher than Inclusion or Control. The Abusive Drinker had fewer responses than Non-Abusive and Non-Drinkers.

CHAPTER V

Summary, Findings, Discussion, and Recommendations

Summary

This investigation was initiated to determine if specific characteristics of internality-externality, Inclusion, Control, and Affection (as defined by the measuring instruments) would predict drinking habits. It was hoped that this information could lend insight into perceived interpersonal needs of the Abusive Drinker and methods could then be devised to better meet those needs. The effectiveness of programs such as Alcholics Anonymous (AA) was known, but little information was available as to why those programs succeeded when other methods were far less successful. Investigating self-perceived needs or attitudes among the three groups seemed to offer a method to study patterns of self-perceived needs and offer insights to specific needs of each group. The knowledge of how various groups perceive themselves lends information for developing more effective programs.

The present study was designed to study various dimensions of personality factors frequently considered to be characteristic of abusive drinking. The factors considered were general control of life, control of drinking habits,

originating action and receiving behavior in three need areas: Inclusion, Control, and Affection; these were compared with respect to three alcohol drinking conditions (Abusive Drinking, Non-Abusive Drinking and Non-Drinking). Data on a total of 114 male subjects were subjected to correlational analysis and a series of Analyses of Variance (ANOVAS). The Abusive drinkers were selected from individuals who had been arrested for Driving Under the Influence (DUI) and were attending a school program designed to alieviate or eradicate DUI offenses. The Non-Abusive Drinkers' data was collected from various sources, each individual being given a screening instrument to eliminate abusive drinkers. Non-Drinkers were obtained from a religious group whose doctrine does not condone the use of alcohol. The age of the subjects was matched within a five-year span.

Each group was given the test forms with a designated person giving instructions for completion of the forms. The Abusive and Non-Drinking groups completed the inventories within a given time in one setting. The Non-Abusive Drinker's procedure varied. Some individuals completed the questionnaire at their leisure, while others completed the questionnaire immediately. All instruments were self-administered devices and each test was scored objectively. Greater scores on the DRIE and Rotter instruments reflect

external direction. The FIRO-B yields six scores for the Expressed (initiating) and Wanted (receiving) behaviors in three need areas: Inclusion, Control, and Affection with scores ranging from zero (0) to nine (9).

The first hypothesis in the present investigation stated that there was no statistically significant difference in scores on internal-external control among Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers, as measured by Rotter's Internal-External Locus of Control Scale and A Drinking Related Control Scale. The data revealed that there was a statistically significant difference between these scores, which suggests the two instruments are measuring some of the same characteristics but differing in many others.

Examining the three Alcohol Treatment Conditions on the Rotter instrument reveals that while all three groups are internally controlled, there is a statistically significant difference between the Non-Abusive Drinkers and the Non-Drinkers. The mean scores indicated Non-Drinkers to be most internally controlled, Abusive Drinkers second, and Non-Abusive Drinkers with the least internal control over general life conditions. This perhaps suggests that persons at the extremes of drinking conditions (Abusive Drinkers and Non-Drinkers) require more control or caution in their general life patterns, whereas the finding with Non-Abusive persons

perhaps reflects their need of sociability in their general orientation of life.

The DRIE scores reflect extreme internal direction. The Abusive Drinkers are statistically different (in the direction of externality) from Non-Abusive Drinkers and Non-Drinkers. The data suggest that the Abusive Drinker has less internal control over specific drinking-related behaviors than the Non-Drinker and Non-Abusive Drinker. Perhaps another manner of looking at the scores is to suggest that these Abusive Drinkers are more susceptable to environmental pressures in regard to specific drinking behaviors than the other two groups. However, all three groups must be considered internally controlled.

The second hypothesis stated that there was no statistically significant correlation between perceived control of life (Rotter's I-E Locus of Control Scale) and interpersonal needs, as measured by FIRO-B, among Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers (Tables 1,2, and 3). The null hypotheses of no relationships was accepted. All three groups of drinkers reflect non-significant relationships between the Rotter I-E Locus of Control Scale and any FIRO-B measure. On the Non-Abusive Drinker's sample, age is moderately negatively correlated with four FIRO-B measures (W-I, E-A, SumI, and Total Sum). The Abusive Drinker's sample indicate a low significant negative correlation between age and the Rotter Scale (-.36) Perhaps these relationships suggest less need for the attributes indicated as age advances.

The third null hypothesis was accepted due to no significant correlation found between perceived control of drinking (DRIE) and specific interpersonal needs (FIRO-B) among the groups sampled. These scores indicate that for these groups, the FIRO-B, Rotter, and DRIE, do not measure the same attributes or that the attributes as expressed on the FIRO-B do not significantly relate to internality as expressed on the Rotter and DRIE.

A further examination of responses on the FIRO-B (Table 16) reveals that the Abusive Drinker's group expressed significantly lower responses than the Non-Drinking and Non-Abusive Drinking groups (26.82 = 26.84 > 18.29). On the FIRO-B all three drinking groups expressed greater scores in Affection with Inclusion then Control in descending order (Table 14). The mean scores for Inclusion and Affection did not significantly differ but were significantly larger than the Control score (8.11 = 9.07 > 6.81). Another aspect of the scores on the FIRO-B measure indicates various significant patterns among the drinking groups. Within the Non-Drinking group (Table 8) Wanted Affection is greater than Wanted Control (5.42 > 3.34) and Expressed Control is greater than Wanted Control (4.92 > 3.34). The scores in the Control area for the Non-Drinking group account for the pattern difference among the drinking groups for Expressed scores. The Abusive and Non-Abusive Drinking

groups express higher scores for Inclusion and Affection with Control being lower, whereas the Non-Drinkers express higher Control scores than Inclusion and Affection. According to the author of the FIRO-B, Expressed Control on this instrument refers to a preference for controlling or influencing the actions of others.

The Wanted dimension on the FIRO-B (Table 8) indicates the Inclusion mean for the Non-Abusive group was larger than the Abusive Drinker group (5.11 > 2.79). The Wanted Affection means for the Non-Drinkers and Non-Abusive Drinkers were both larger than the Wanted Affection mean for Abusive Drinkers (5.42 = 5.95 > 3.66). The scores appear to follow a similar pattern with the Abusive Drinkers having lower scores with less deviation among the three variables. The Non-Abusive Drinkers score higher in Affection and Inclusion. The Control variable for the Non-Abusive (3.32) and Non-Drinking (3.32) groups was close. Therefore, the order from high to lower scores on the Wanted dimension is Non-Abusive, Non-Drinkers, and Abusive Drinkers. According to the author of the FIRO-B, the Wanted dimension expresses the need to receive the relationship indicated. The scores of the sampled groups indicate that the Abusive Drinkers appear to have less need for Inclusion, Control, and Affection with less variability in these scores than the other two drinking groups.

Findings

On the basis of these findings, internality-externality (as measured) does not predict alcohol drinking behavior. This study confirms the findings of previous studies with Rotter's Internal-External Control Scale and Alcoholic and Social Drinking populations showing an internal direction for both groups. (Donovan and O'Leary, 1976) On the basis of this data, it was concluded the Non-Abusive Drinking group had slightly stronger interpersonal needs, as expressed on the FIRO-B, than the Non-Drinking group and both were greater than the Abusive Drinking group. All Alcohol Treatment Groups - Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers scored in an internal direction on Rotter's Internal-External Scale and on the Drinking Related Internal-External Scale. However, the Abusive Drinkers had a significantly higher mean score (more external) than the Non-Drinker and Non-Abusive Drinker on the DRIE. These findings are in the same direction as previous studies which concluded that alcoholics perceive themselves in control of their behavior in general and of their drinking behavior in particular (Oziel, Obitz, Keyson; 1973). The Rotter Scale showed a significant difference between the mean score of the Non-Abusive Drinker (more external) than the Non-Drinker. No significant difference was found between the mean score of the Non-Abusive and Abusive Drinker.

Discussion

This investigation was concerned with various aspects of attitudes among three groups of drinkers: Abusive Drinkers, Non-Abusive Drinkers, and Non-Drinkers. Research frequently reports that abusive drinking is related to external control (Naditch, 1975; Obitz and Swanson, 1976). The aspect of personality related to control was studied through three instruments: Rotter's Internal-External Locus of Control, Drinking Related Internal-External Scale, and Fundamental Interpersonal Relationship Orientation-B.

It is interesting that no significant relationships were found between the control factors on the FIRO-B and Rotter's I-E Scale and Drinking Related I-E Scale. The ability to control or to be responsible for one's life and behavior is frequently stated as the factor preventing destructive behavior patterns. The Rotter scores for these groups indicate that internality and externality as expressed on these measures do not indicate the type of drinking behavior that individuals might display. The DRIE scores for these groups show extreme high internality for all groups, although there is a tendency for more externality in the Abusive Drinking group.

External score are reported to reflect a dependency

on external information. It would seem that external scores on the I-E measures and personality traits of dependency would be comparable. If so, this study supports the contention that dependency is not necessarily a factor contributing to abusive drinking. Other traits may be involved, however. For example, anxiety and I-E scores have been studied with male alcoholic inpatients (Organ, 1973). It was found that self-concept was related to anxiety and did influence I-E scores to the degree of social anxiety experienced. The authors concluded that self-concept was positively and significantly related to the degree of internality.

Anxiety pertaining to drinking patterns has been studied (Horton, 1947; Greenbery and Carpenter, 1957). Research on childbearing practices and Rotter's I-E Control Scale consistently indicate that those who score in an external direction were exposed to parenting that is conducive to the development of dependency, hostility, aggression, and a view that the world is controlling and malevolent. The individuals scoring in an internal direction on Rotter's Scale described their parenting as consisting of principled discipline, predictable standards, and nurturing. According to Bacon, Barry and Child's studies, the early childhood rearing practices appear to be related to those who score in an internal direction (Rotter's I-E) and who show a low level of conflict.

Perhaps of greatest interest and use is how the individual perceives himself. These instruments offer information about an individual and how his perceptions affect other relationships. The arousal of curiosity and motivation to change behavior may be the result of information given to individuals, particularly those Abusive Drinkers who enter programs under coercion.

Recommendations for Future Research

This study deals with self-perceived aspects of personality, including internal-external control of life (Rotter I-E), internal-external control of drinking behavior (DRIE), Expressed and Wanted needs of Inclusion, Control, and Affection (FIRO-B). To delinenate the underlying theme of this study, it is suggested that multivariant analysis with a larger number would perhaps yield more information. Research in measures of self-esteem in conjunction with personality variables, could lend more information in explaining and predicting behavior. This information could be of great assistance in planning more effective preventive and intervention programs.

It would also seem highly desirable to study aspirations, expectations, or goals and the direction these assume, among the three groups of drinkers. A knowledge of goals in personal life and interpersonal relationships

should be highly beneficial in assisting individuals with given personality variables to acquire skills, motivation, and alternatives to meet these goals.

Studies involving cultural, sexual, racial, social expectations pertaining to drinking and their relationship to the individual drinker's interpersonal expressions, and methods or skills developed for dealing with these, should be extensively explored. Research in childhood rearing practices and specific adult behaviors such as drinking practices should be highly beneficial to the understanding and treatment of abusive drinking.

Another personality variable pertinent to drinking behavior is the ability to recognize and use one's resources to fulfill needs. To do so, an individual must have adequate skills for social interaction. It would be interesting to study specific social skills in each group and to see how they vary and are similar.

Perhaps through increased understanding of how our interpersonal needs relate to our lives and the skills that we have to meet these needs, there will be less need for abusive drinking and greater compassion and understanding for those dealing with this aspect of living. More effective programs should result from increased understanding.

BIBLIOGRAPHY

Bales, R.F., "Cultural Differences in Rates of Alcolholism." Quarterly Journal of Studies on Alcohol, 1946, 6, 480.

Bacon, M.,. Alcoholism Progress in Research and Treatment. Edited by Peter G. Bourne and Ruth Fox. Academic Press, New York, 1973, 171-192.

Bacon, M.K.: Barry, H. III: and Child, I.L. "A Cross Cultural Study of Drinking: II. Relations to Other Features of Culture." Quarterly Journal of Studies on Alcohol, 1965, Supplement 3, 29-48.

Butts, S.V. and Chotlos, J. "A Comparison of Alcoholics and Non-Alcoholics on Perceived Locus of Control." Quarterly Journal of Studies on Alcohol, 1973, 34, 1327-1332.

Chaplin, J.P. Dictionary of Psychology. Dell Publishing Company, Inc., 1 Dag Hammarskjold Plaza, New York, N.Y. 10017, 1973.

Donovan, D.M.; O'Leary, M.E. "Comparison of Perceived and Experienced Control Among Alcoholics and Nonalcoholics." Journal of Abnormal Psychology, 1975, Dec., 84, (6), 726-728.

Fenichel, O. The Psychoanalytic Theory of Neurosis. Norton, New York, 1954.

Gerald, L.L. "Intoxication and Addiction." Quarterly Journal of Studies on Alcohol, 1955, 16, 685-97.

Glad, D.D. "Attitudes and Experiences of American-Jewish and American-Irish Nale Youths as Related to Differences in Adult Rates of Inebriety." Quarterly Journal of Studies on Alcohol, 1947, 8, 406.

Harrell, M.A. "The Self-Concept of Alcoholics During the Process of Abstinence." Dissertation Abstracts, 1976, 37, 10-A.

Harrow, M. and Ferrante, A. "Locus of Control in Psychiatric Patients." Journal of Consulting and Clinical Psychology, 1969, 33, 582-589.

Horton, D. "The Functions of Alcohol in Primitive Societies: A Cross Cultural Study." Quarterly Journal of Studies on Alcohol, 1943, 4, 199.

Kalant, Harold; LeBlanc, A. Eugene; and Gibbins, Robert J. Biological Basis of Alcoholism. John Wiley & Sons, Inc., New York, 1971, 235-261.

Lester, D. "Self-Selection of Alcohol by Animals, Human Variation, and the Etiology of Alcoholism." Quarterly Journal of Studies on Alcohol, 1966, 27, 395.

Lolli, G. "Alcoholism as a Disorder of the Love Disposition." Quarterly Journal of Studies on Alcohol, 1956, 17, 96.

McCarthy, R.G. Drinking and Intoxication, 1959, Yale Center of Alcohol Studies, New Haven, Connecticut.

McCord, W. and McCord, J. Origins of Alcoholism, 1960, Stanford University Press, Stanford, California.

Masserman, J.H. and Yum, K.S. "An Analysis of the Influence of Alcohol on Experimental Neurosis in Cats." Psychosomatic Medicine, 1946, 8, 36.

Myerson, A. "Alcohol: A Study of Social Ambivalence." Quarterly Journal of Studies on Alcohol, 1940, 1, 13-20.

Naditch, M.P. Locus of Control and Drinking Behavior in A Sample of Men in Army Basic Training." Journal of Consulting and Clinical Psychology, 43, 1975.

National Institute on Alcohol Abuse and Alcoholism (NIAA), Alcohol and Alcoholism: Problems, Programs, and Progress, National Institute of Mental Health, Rockville, Maryland, 1972.

Obitz, F.W. and Swanson, M.K. "Control Orientation in Women Alcoholics." Journal of Studies on Alcohol, 37, (5), 1976.

Organ, D.W. "Locus of Control and Clarity of Self-Concept." Perceptual and Motor Skills, 1973, 37, (1), 100-102.

Oziel, L.J.; Obitz, F.W.; and Keyson, M. "General and Specific Perceived Locus of Control in Alcoholics.: Psychology Reports, 1972, 30, 957-960.

Paredes, A. "Denial, Deceptive Maneuvers, and Consistency in the Behavior of Alcoholics." Annals of the New York Academy of Sciences, 1974 (April), 233, 23-33.

Robinson, John P. and Shaver, Phillip R., Ed. Measures of Social Psychology Attitudes. University of Michigan, Ann Arbor, Michigan, 1973.

APPENDIX A

RAW DATA FROM ALL SUBJECTS

Data For Abusive Drinkers

SUBJECT	AGE	EI	WI	EC	WC	EA	WA	$SUME^I$	$SUME^C$	$SUME^A$	SUMTO	DRIE	ROTTER
1	17	3	1	1	5	1	0	4	6	1	11	7	9
2	17	4	5	1	3	1	2	9	4	3	16	5	13
3	18	8	6	7	2	4	1	14	9	5	28	4	7
4	19	3	0	1	1	1	1	3	2	2	7	3	11
5	20	8	6	2	3	5	4	14	5	9	28	0	3
6	21	4	6	4	7	4	6	10	11	10	31	1	11
7	21	3	2	1	4	1	2	5	5	3	13	1	13
8	23	1	0	1	4	1	4	1	5	5	11	6	8
9	23	2	9	6	9	3	4	11	15	7	33	8	5
10	23	1	1	0	1	2	1	2	1	3	6	2	5
11	23	5	8	2	3	2	3	13	5	5	23	3	10
12	27	3	2	2	4	4	2	5	6	6	17	9	12
13	28	8	8	4	1	3	8	16	5	11	32	1	3
14	28	0	0	0	2	1	4	0	2	5	7	2	6
15	30	3	1	7	3	6	3	4	10	9	23	15	4
16	30	2	9	3	3	8	7	9	6	15	30	3	10
17	30	1	7	1	2	1	7	8	3	8	19	8	14
18	30	4	3	4	6	7	8	7	10	15	32	1	7
19	30	2	0	0	3	1	1	2	3	2	7	4	2
20	33	8	9	9	1	8	9	17	10	17	44	3	3
21	34	1	1	2	0	4	5	2	2	9	13	1	1

Data for Abusive Drinkers (Cont.)

SUBJECT	AGE	EI	WI	EC	WC	EA	WA	SUME^{I}	SUME^{C}	SUME^{A}	SUMTO	DRIE	ROTTER
22	36	1	0	1	1	1	0	1	2	1	4	0	1
23	34	1	0	0	2	2	0	1	2	2	5	4	13
24	39	1	0	1	1	2	0	1	2	2	5	3	2
25	39	2	0	1	0	3	1	2	1	4	7	3	12
26	40	6	0	2	1	5	5	6	3	10	19	0	2
27	40	8	8	1	3	7	9	16	4	16	36	5	5
28	41	3	1	2	1	2	3	4	3	5	12	2	6
29	43	2	0	3	3	4	6	2	5	9	16	3	6
30	44	1	0	1	8	3	0	1	9	3	13	14	8
31	45	5	0	0	2	3	6	5	2	9	16	7	5
32	47	0	0	1	2	4	3	0	3	7	10	2	3
33	49	9	9	9	1	8	8	18	10	16	44	0	3
34	51	3	2	2	4	5	0	5	6	5	16	3	8
35	51	4	0	2	4	3	8	4	6	8	18	5	2
36	54	0	0	2	2	2	3	0	4	5	9	13	11
37	59	0	0	3	8	2	0	0	11	2	13	1	4
38	60	4	2	2	3	5	5	6	5	10	21	4	3

Data for Non-Drinkers

SUBJECT	AGE	EI	WI	EC	WC	EA	WA	SUME^{I}	SUME^{C}	SUME^{A}	SUMTO	DRIE	ROTTER
39	19	8	9	6	6	9	9	17	12	18	47	0	2
40	20	5	4	3	0	5	5	9	3	10	22	9	7
41	20	6	1	7	2	3	1	7	9	4	20	0	7
42	20	4	4	3	3	6	8	8	6	14	28	0	4
43	20	4	9	0	0	5	7	13	0	12	25	0	4
44	25	6	6	6	4	8	8	12	10	16	38	0	5
45	25	7	0	9	2	8	9	7	11	17	35	0	4
46	25	6	4	7	5	2	6	10	12	8	30	0	2
47	25	3	1	0	4	4	1	4	4	5	13	0	7
48	27	1	8	3	6	1	4	9	9	5	23	1	4
49	28	2	5	5	3	8	3	7	8	11	26	15	12
50	28	6	1	7	2	3	5	7	9	8	24	0	1
51	28	0	0	1	4	0	5	0	5	5	10	1	7
52	29	6	7	8	3	9	8	13	11	17	41	4	5
53	30	4	0	5	3	3	6	4	8	9	21	2	4
54	31	1	0	5	1	9	7	1	6	16	23	0	6
55	31	5	1	4	5	3	1	6	9	4	19	0	6
56	32	7	8	6	3	6	9	15	9	15	39	4	2
57	32	7	7	9	0	3	3	14	9	6	29	0	5
58	32	5	7	7	3	4	6	12	10	10	32	0	9

Data for Non-Drinkers (Cont.)

SUBJECT	AGE	EI	WI	EC	WC	EA	WA	SUME^{I}	SUME^{C}	SUME^{A}	SUMTO	DRIE	ROTTER
59	33	8	5	3	2	7	8	13	5	15	33	0	1
60	34	6	5	5	6	4	8	11	11	12	34	0	4
61	34	8	7	9	3	8	9	15	12	17	44	9	10
62	36	4	6	5	4	5	8	10	9	13	32	0	6
63	36	1	6	2	2	1	1	7	4	2	13	0	3
64	40	7	8	8	3	8	7	15	11	15	41	0	4
65	40	0	0	7	6	0	0	0	13	0	13	2	3
66	40	7	8	5	5	5	9	15	10	14	39	6	14
67	40	5	1	8	2	5	1	6	10	6	22	1	3
68	40	1	0	5	4	1	1	1	9	2	12	3	2
69	48	5	1	4	1	4	4	6	5	8	19	2	4
70	48	4	3	3	4	3	5	7	7	8	22	0	3
71	48	5	0	4	8	3	5	5	12	8	25	1	1
72	51	4	6	4	4	4	8	10	8	12	30	1	3
73	52	2	0	5	6	7	5	2	11	12	25	2	5
74	55	6	5	1	2	3	5	11	3	8	22	0	6
75	57	4	7	7	1	3	4	11	8	7	26	0	3
76	65	4	1	1	5	4	7	5	6	11	22	2	5

Data for Non-Abusive Drinkers

SUBJECT	AGE	EI	WI	EC	WC	EA	WA	SUME^{I}	SUME^{C}	SUME^{A}	SUMTO	DRIE	ROTTER
77	18	5	8	8	5	8	8	13	13	16	42	0	9
78	18	4	8	1	3	4	7	12	4	11	27	2	7
79	18	3	8	4	9	7	5	11	13	12	36	3	16
80	19	4	7	4	4	3	4	11	8	7	26	1	8
81	20	7	7	5	4	4	1	14	9	5	28	3	16
82	29	7	7	5	3	8	8	14	8	16	38	4	10
83	21	2	7	1	2	2	3	9	3	5	17	1	2
84	22	8	8	5	6	4	6	16	11	10	37	0	7
85	22	9	0	4	2	9	5	9	6	14	29	0	5
86	22	7	8	4	5	9	9	15	9	18	42	0	8
87	22	5	6	0	6	4	9	11	6	9	26	1	3
88	23	5	9	0	4	9	9	14	4	18	36	2	14
89	23	9	9	5	4	7	7	18	9	14	41	8	3
90	23	4	0	6	0	2	4	4	6	6	16	6	10
91	30	4	4	5	0	2	3	8	5	5	18	3	12
92	30	2	7	1	2	3	8	9	3	11	23	0	8
93	30	4	0	3	1	2	2	4	4	4	12	2	8
94	30	3	7	0	4	3	5	10	4	8	22	2	8
95	30	6	6	2	2	7	8	12	4	15	31	5	10

Data for Non-Abusive Drinkers (Cont.)

SUBJECT	AGE	E I	W I	E C	W C	E A	W A	SUM E^I	SUM E^C	SUM E^A	SUM TO	DRIE	ROTTER
96	30	7	9	3	1	8	9	16	4	17	37	3	11
97	31	5	7	1	1	5	7	12	2	12	26	0	5
98	31	7	7	5	3	3	5	14	8	8	30	1	3
99	31	4	2	9	2	4	9	6	11	13	30	0	6
100	31	0	0	0	5	3	5	0	5	8	13	1	9
101	33	7	8	8	6	4	4	15	14	8	37	2	15
102	40	3	9	8	3	4	8	12	11	12	35	1	5
103	40	4	1	7	5	3	1	5	12	4	21	2	4
104	40	8	6	3	3	7	8	14	6	15	35	0	4
105	43	4	3	2	4	5	5	7	6	10	23	0	7
106	43	3	9	8	3	3	9	12	11	12	35	0	6
107	43	4	3	3	7	1	5	7	10	6	23	0	14
108	45	2	0	1	1	1	5	2	2	6	10	0	13
109	45	4	0	0	1	3	5	4	1	8	13	1	7
110	52	6	0	5	5	5	6	6	10	11	27	1	3
111	52	0	1	1	2	1	5	1	3	6	10	1	11
112	52	6	7	2	3	7	8	13	5	15	33	0	5
113	54	2	6	2	1	2	7	8	3	9	20	0	8
114	62	3	0	2	4	2	4	3	6	6	15	3	6

APPENDIX B

RATIONALE FOR THE FIRO-B

FIRO-B

Fundamental Interpersonal Relations Orientation - Behavior

	INCLUSION	CONTROL	AFFECTION
Express			
Want			

Score Range = 0 to 9

INCLUSION

Express - A preference for applying, joining, or always being in interpersonal activities, but not wanting to be asked in by others (originate only)

as opposed to:

Want - Never actively participating, but waiting to be asked or invited to join (receive only)

CONTROL

Express - A preference for always dominating and controlling the actions of others and strongly resisting their influence (originate only)

as opposed to:

Want - Always being influenced and never being influential (receive only)

AFFECTION

Express - A preference for loving over being loved (originate only)

as opposed to:

Want - A passive role of being loved without loving (receive only)