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DRINKING IN COLLEGE

by

Shula Avni Libar

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

June

1969

LIFE

Shula Avni (Luber) was born in Tel Aviv, Israel, November 16, 1944. She moved to Chicago, Illinois, in April, 1948. In June, 1962, she was graduated from Stephen Tyng Mather High School. She was married to Dr. Robert James Luber (M.D.) in June, 1965. In August, 1965, she received the degree of Bachelor of Arts with a major in psychology from Northwestern University, Evanston, Illinois. She was granted an assistantship and began full-time graduate study in psychology at Loyola University, Chicago, Illinois, in September, 1965. In June, 1967, she received the degree of Master of Arts in psychology from Loyola University, Chicago, Illinois.

ACKNOWLEDGMENT

The author wishes to acknowledge her gratitude to Dr. Ronald E. Walker, whose advice and encouragement were instrumental in the planning and analysis of the research involved in this dissertation.

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CHAPTER I

INTRODUCTION

Increasing interest has been taken in the drinking behavior of young people during the Twentieth Century, and particularly during the last two decades. Such interest has been provoked mainly by two sets of circumstances: 1) The studies completed on drinking in college students (teen-agers, young people, etc.) have been few in number, and even these have not provided a complete picture of drinking patterns of young people. This author could find no study on college students which related the three variables of environmental factors, personality characteristics, and drinking history. Most research takes into account only two of these variables at a time, and of these, a majority relate environmental factors with drinking patterns. Very little research has been done on the relationship between personality features and the use of alcohol in college students. 2) Drinking patterns of young people might narrow the gap in knowledge about the etiology of alcoholism, and possibly help to promote earlier detection of potential alcoholics.

That usage of alcohol is prevalent throughout college campuses in the United States is a widely established finding. Straus & Bacon (1953) studied drinking practices in colleges across the United States in the early 1950's and found that 74% of the 16,300 students who participated in their study reported having used alcoholic beverages to some extent, while 26% reported having always been total abstainers. These authors indicate that 79% of the

men drinkers and 65% of the women drinkers reported that their drinking started before entering college. At the Lake Tahoe conference on alcohol and college youth (American College Health Association, 1965), it was estimated that 75% of men would have used alcohol at some time during their college career.

Maddox (1962) studied 8,000 high school students within the last 10 years in five areas of the United States and found that: 1) students have their first drink at an average of 13-14, although they may have "tasted" alcohol before; 2) first exposure is usually in the home with parents; 3) almost all high school graduates have had at least one drink; 4) one out of four users claimed to have been "high" at least once during the month prior to the research in the New York, Wisconsin, and Kansas studies; 5) one out of ten users in these studies reported having been "drunk" in this same period; 6) in all of the studies, beer was the most commonly used alcoholic beverage; and 7) laws relating to teen-age drinking had little relationship to drinking practices.

Cisin (1965) cites an unpublished study completed in 1961 by the National Merit Scholarship Corporation that covered 246 schools and approximately 30,000 students. The range of students within individual colleges reporting having drunk beer during their Freshman year was very wide, from a minimum of 2% in some schools to 93% in other schools. The median was about 51% -- about half the students had drunk beer during their Freshman year. The proportions who drank hard liquor during their Freshman year were about the same as for beer. The proportion reporting becoming intoxicated during their Freshman year ranged from 0% in five of the 246 schools to 71.5% in one school, with a median of 25%. A survey by Blum, Blum, & Garfield (Roche Laboratories, 1968a) of five

universities and colleges in Stanford California indicated that alcohol is the most popular substance used at least once (94%). It greatly exceeded all other substances, including sedatives (31%), amphetamines (25%), marijuana (21%), tranquilizers (18%), hallucinogens (5.6%), and other substances such as peyotl (5.6%), and opiates, codeine, and narcotics (1.3%). These investigators stated that colleges have shown great interest in marijuana and hallucinogenic drugs, but relatively little in the prevention of ill effects of alcohol.

A number of investigators have tried to determine why students drink in their college years -- as well as during earlier years -- and also, why drinking becomes a "problem" for certain students. In Maddox's (1964) summary of teen-age drinking in the United States, he reported that every study has found that the first drinking of teen-agers occurs most frequently in their own homes most often about their fourteenth or fifteenth year. In all of his studies, most students reported their parents as keeping alcohol in the home and making some use of it. Maddox concluded that "...teen-agers' perception of adult drinking behavior, coupled with descriptions of first drinking experiences, both emphasize drinking as legitimate behavior for adults and at least some teen-agers under some circumstances...The teen-ager does not invent the idea of drinking -- he learns it." Cisin (1965) also agrees that drinking is a learned behavior, and that the odds are very high that the average college student has learned to drink before his entrance into college. In a National Survey of Drinking Practices conducted through the support of the National Institute of Mental Health, Cisin (1965) interviewed over 2700 men and women randomly drawn from the entire population in the Continental United States. He found that

75% of the adults in the age group of the parents of current college students drink at least once a year, and that more than 25% of these age mates of college students' parents drink enough to qualify as "heavy drinkers." Straus & Bacon (1953) found that among the male students, over 90% of those who reported that both parents drink are themselves users, compared with only 58% of those reporting that both parents abstain. The relationship is more marked among women; when both parents drink, 83% of the female students are drinkers, compared with only 23% when both parents abstain. Straus & Bacon emphasized that parental example is a significant factor in drinking by young people. It was noted that as negative sanctions increase (here, abstention by parents), they do so disproportionately for women.

Maddox (1965) stated that our ignorance of the etiology of problem drinking among collegians is profound. He posited two characteristics of our social order as the complicating factors in the adolescent's attempt to fit drinking into his own personal strategy for living. The first characteristic is American society's ambivalence about alcohol: on the one hand, alcohol has been incorporated within customs and religious rituals as the basis of good fellowship and as an indication of social unity; on the other hand, alcohol has been considered a prime evil, a source of immorality. Maddox believes that "this same ambivalence has involved more than a few college administrators in the public subscription to official rules about drinking which they neither enforce nor intend to enforce." The effects of culturally generated and socially sustained ambiguity and ambivalence about the drinking behavior of collegians has not been investigated systematically. Findings by Jellinek

(1960), however, seem to provide ample basis for investigation:

"In societies which have a low degree of acceptance of large daily amounts of alcohol, mainly those will be exposed to the risk of addiction who on account of high psychological vulnerability have an inducement to go against social standards. But in societies which have an extremely high degree of acceptance of large daily alcohol consumption, the presence of any small vulnerability, whether psychological or physical, will suffice for exposure to the risk of addiction? (p. 28).

The second characteristic Maddox (1965) discusses is the anomalous position of youth in our social structure. This can be observed in college drinking rules, which "commonly reflect both societal confusion about when an individual comes of age and societal ambivalence about permitting experimentation in the process of growing up." Maddox states that questions such as "Are there many alcoholics among college students?" are nonsense -- the more relevant question being, "What business should college students be about and does their observed drinking behavior contribute to the achievement of the academic objectives or does the drinking not contribute?" At the Lake Tahoe conference on alcohol and college youth (American College Health Association, 1965), it was indicated that the histories of full-fledged alcoholics show that early troubles with alcohol occurred at the college age. It was also suggested that the college student's exposure to alcohol antedates college. Thus, it seems that the important issue becomes how the drinking pattern of the college years fits into other aspects of the student's life, specifically, his drinking pattern before college, the parents' drinking pattern, the subculture's drinking pattern, etc. For example, members of the conference pointed out that students who are from backgrounds in which alcohol is forbidden and then come into college and experience alcohol because of their need for social approval "may more often go off the deep end

from the repressive background." Blacker, Demone, & Freeman (1965) showed that the percentage of alcohol users is about the same among delinquents as among normal high school students. This conflicts with the frequent assumption that a teen-ager who drinks is a delinquent. The study concluded that the chief difference between delinquents and normals is not how many of each group drink, but how they drink. Straus & Bacon (1953) did not find a particular style of drinking which clearly set collegians apart from others in society. In fact, this is why they called their book, Drinking in College and rejected the alternative title, "College Drinking." As a result of these findings, most investigators have found that in studying any aspects of alcohol usage -- alcoholism, social drinking, drinking in teen-agers, etc. -- a multi-facet approach is the most effective one.

The second reason for studying drinking in college -- to increase knowledge about the etiology of alcoholism -- is certainly well-grounded, for 1) throughout the history of alcoholic beverages, drunkenness has been considered a problem (National Center for Prevention & Control of Alcoholism, 1967); and 2) the multitudinous studies on alcoholism have led to conflicting and/or inconclusive results.

With respect to the problems produced as a result of drinking, Efron & Keller (1963) stated that the number of alcoholics in the United States may be between four and five million -- approximately 4% of the total adult population. Locke & Duvall (1964) conducted a study on the rate of admissions of alcoholics -- particularly those with the most severe forms of the disease -- to State mental hospitals, and found an 18% rise in ten years. In nine States, alcoholism led all single diagnoses in mental hospitals. Mulford (1963)

conducted a survey of Americans who use alcoholic beverages and found that because of such problems as poor health or marital troubles attributed to drinking by the drinkers themselves, by their employers, or by the police, 10% of the drinkers he studied could be categorized as problem drinkers. According to the national figures for 1964 (U. S. National Center for Health Statistics, 1966), alcoholism -- including alcoholic cirrhosis and alcoholic psychosis -- accounted for about 0.8% of all deaths. Some estimates (Henderson & Bacon, 1955) have indicated that the life expectancy of alcoholics is approximately ten to twelve years less than average.

Many studies on alcoholics have tried to assess descriptive and causative factors with the hope of improving the ongoing state of affairs described above, and this leads to the second reason mentioned for studying drinking in college -- to narrow the gap in knowledge about alcoholism, since studies have been conflicting and/or inconclusive.

Extensive psychological testing has been done with alcoholics. Projective tests used have included the Rorschach (LeVann, 1953; Reitzell, 1949; Seliger & Cranford, 1945; and Wiener, 1956); the Draw-A-Person (Navratil, 1958); and the Thematic Apperception Test (Klebanoff, 1947; and Maddox & Jennings, 1959). The Minnesota Multiphasic Personality Inventory (MMPI) has been used chiefly for diagnostic purposes (Ceccarelli, 1958; Hampton, 1951; Kill, Haertzen, & Davis, 1962; Holmes, 1953; Hoyt & Sedlacek, 1958; Korman, 1960; MacAndrew & Gurtama, 1963; MacAndrew, 1965; and Muzekari, 1965). A number of studies on adult populations of problem drinkers involving the use of the MMPT consistently reported a pattern of high psychopathic deviation (Button, 1956; Hill, 1962; and Rosen, 1960). A Q-Sort technique has also been

used (MacAndrew & Garfinkel, 1962). Connor (1960) adapted the adjective check lists of Gough & Heilbrun (1955) and Sarbin (1955) for his study of the self-concept of the alcoholic. Vanderpool (1967) used the Adjective Check List (Gough & Heilbrun, 1965) and the Tennessee Self Concept Scale (Fitts, 1965) in his study of alcoholics.

Although some early investigators felt that there was a definite alcoholic personality and associated homosexual tendencies (Chafetz, 1959; Ferenczi, 1912; and Parker, 1959), most of the research done in the past twenty years denies both the existence of a unique alcoholic personality and related homosexual behavior (Armstrong, 1958; Bathurst & Glatt, 1959; Coleman, 1956; Fox, 1961; Hoff, 1965; Kaldegg, 1956; Kennedy & Fish, 1959; Kieve, 1950, Landis & Bolles, 1946; Lazarus, 1956; Murphy, 1958; Rosen, 1960; Seliger, 1952; Sutherland, Schroeder, & Tordella, 1950; Syme, 1957; and Witkin, Karp, & Good-enough, 1959). Investigators have recently maintained that specific personality traits (or characteristics, factors, dimensions, etc.) -- rather than an overall personality configuration -- are common to alcoholics (Moore, 1942; and Seliger & Rosenberg, 1941). Halpern (1946a, 1946b) described the alcoholic as maladjusted, immature, passive, and inadequate. Manson (1948a, 1948b) attributed seven characteristics to the alcoholic: anxiety, depressive fluctuations, emotional sensitivity, feelings of resentment, failure to complete social objectives, feelings of aloneness, and poor interpersonal relationships. According to Stewart (1950), the alcoholic is emotionally immature and dependent. Bales (1946), Lisansky (1960), and McCord & McCord (1960) described the alcoholic as unable to cope with strong dependency needs. Randall & Rogers (1953) agreed, adding that the alcoholic also has an unrealistic level

of aspiration and is unwilling to make sacrifices in terms and time and energy necessary for even mediocre success. Shulman (1951) found that the alcoholic is a social isolate, ambivalent toward women, and unable to pursue high aspirations. Rotter (1945) also noted a low level of aspiration in the alcoholic. Button (1956) and Rosen (1960) found depressive tendencies in alcoholics, and Schilder (1941) and Singer (1964) noted isolation. Hanfmann (1951) and Madsen (1964) have attributed to adult problem drinkers a tendency to doubt their adequacy as males. Machover & Puzzo (1959a, 1959b, 1959c) studied differences in personality characteristics between alcoholics and non-alcoholics and found that the alcoholics manifested a significantly greater degree of the following characteristics: schizoid character deviation, mother involvement, father involvement, oral dependence, castration problems, castration anxiety, feelings of insufficiency, general ambivalence, low self-esteem, sex-ambivalence, depression, social withdrawal, female identification, homosexuality trends, narcissism, feelings of frustration, hostility, difficulty in expression of hostility, general guilt feelings, high level of tension or anxiety, denial, generally defensive attitudes, and obsessive-compulsiveness. Lisansky (1960) suggested that besides predisposing personality traits, an environment which is characterized by frustration, pain, and deprivation can precipitate alcoholism. Moore (1963) also emphasized the sociological factor in alcoholism, namely, early painful disappointments which in turn lead to expectation of further disappointment.

Much research indicates that feelings of inadequacy, dependency, and poor self-concept are characteristic of most alcoholics (Coleman, 1956; Connor, 1960; Fuller, 1966; Hoff, 1961, 1965; and Podolsky, 1959, 1960, 1961a, 1961b,

1962). In the literature on the self-concept of alcoholics, a generalized lack of organization and integration of the self has been noted (Connor, 1962). Vanderpool (1966) studied 100 alcoholics and found that alcoholics, even when they are sober, have more negative self-concepts than non-alcoholics. According to Vanderpool, two possible reasons for why an alcoholic drinks are: 1) in order to escape feelings of inadequacy and lack of personal and social worth and 2) in order to project a more positive self-image to others. However, Vanderpool points out, even when he is drinking, an alcoholic does not feel more positive about himself -- on the contrary, he feels worse. A negative self-image was also noted in the alcoholic by Piotrowski, Lewis, Miksztal, & Phillips (1958). According to DePalma & Clayton (1958), "the alcoholic is characterized by squandered intellectual potentials, low tolerance for stress, sociopathology, and submissive sociability." Scott (1958) posited immaturity as the fundamental characteristic of the alcoholic. Berne (1964) asserted that the alcoholic's chief aim is self-castigation. McCord & McCord (1960) attributed the characteristic of self-pity to the alcoholic.

Many investigators feel that dependency is a characteristic feature in the personality structure and self-concept of the alcoholic (Blane & Meyers, 1963; Bitton, 1956a, 1956b; Karp & Konstadt, 1965; Karp, Witkin, & Goodenough, 1965; and Witkin, Karp, & Goodenough, 1959). Wallinga (1956) observed strong dependency needs, as well as a wish to avoid responsibility and self-destructive drives, in alcoholics. Menninger (1938) had also noted the destruction urges of the alcoholic. Bacon, Barry, & Child (1965) studied three measure of alcoholic consumption in 110 preliterate societies, hypothesizing that "high levels of use of alcohol are in part motivated by a need to relieve frustrated

or conflicted dependency needs." Their hypothesis was supported, and the negative relationship between frequency of drunkenness and indulgence of dependence was confirmed. Armstrong (1958), Armstrong & Wertheimer (1959), Armstrong & Hoyt (1963), and Hayner (1961) have stated that the dependent nature of the alcoholic is a function of parental upbringing.

From the literature on alcoholics, one may conclude that: 1) there is no unique alcoholic personality; and 2) there are two personality characteristics which seem prevalent among alcoholics -- dependency and inadequacy -- and these can be manifested in a number of ways. Vanderpool (1966), for example, subdivided these two traits into five categories: a) immaturity and feelings of insecurity; b) lack of self-esteem, self-confidence, and self-acceptance; c) feelings of sexual and physical inadequacy; d) low tolerance for stress and strain; and e) feelings of estrangement and lack of social worth. Certainly, such conclusions based upon the above mentioned studies do not encompass a full account of the nature of alcoholism.

Another approach in investigating the etiology of alcoholism has been the study of young, "pre-problem" drinkers -- i.e., rather than attempt to determine why alcoholics drink, a number of investigators have studied young people and have tried to predict which of these would later become alcoholics. Investigations seeking relationships between drinking patterns in young problem drinkers and adult problem drinkers have generally shown that there are some similarities in the personality characteristics of these two groups. Stewart & Livson (1966) suggested that adult problem drinking and smoking often emerges from individuals whose behavior in the school years was rated as uncontrolled, assertive, and rebellious. Drinking in defiance of authority or

in the pursuit of masculine camaraderie has frequently been linked to the later immoderate use of alcohol (Bales, 1946; Ullman, 1958). Jones' (1968) longitudinal study showed that boys who are to become problem drinkers were rated high on: uncontrolled impulsivity; hostility and rebelliousness; extroversive behavior (indicated by high scores on the repressive items); emphasis on masculinity; overdependence, coupled with an inability to maintain adequate interpersonal relationships; and increasingly less favorably perceived, aware of the impression they made, productive, and calm. Sanford & Singer (1967), using drinking categories similar to those used by Jones (1968), found that both male and female students who said they drink occasionally and sometimes get drunk, scored higher on impulse expression and developmental status than did subjects who said they drink without getting drunk. In past reports by Williams (1964, 1965, 1966, 1967), personality findings in high PDS (Problem Drinking Scale) college students were compared with PDS of alcoholics, and the similarities and differences were discussed in terms of their possible significance for the etiology of alcoholism. In one study, Williams (1965) compared the self-concepts of college problem drinkers with the self-concepts of alcoholics. He gave a questionnaire including a measure of problem drinking and the Adjective Check List (Gough & Heilbrun, 1965) to 68 Ss from four fraternities at a New England men's college. Williams hypothesized that problem drinking would be associated with low self-evaluation. His results indicated that the college student problem drinkers were similar to Connor's (1960) alcoholics in their tendency to endorse adjective suggestive of neurosis. In another study, Williams (1966) observed a total of 91 students from two colleges at five stag cocktail parties. The Ss completed a problem-drinking

scale (interpreted as measuring proneness to alcoholism) and anxiety and depression adjective check lists which were given before the party, after 4 oz. and at the end of the party. There was a significant difference between problem drinkers and non-problems in the pre-party results -- namely, problem drinkers revealed more anxiety and depression. These differences became insignificant as the last two stages took place.

In a more recent study by Williams (1968), high and low PDS college students were compared with respect to effects of drinking in order to explore psychological reasons for moderate and heavy drinking. Williams hypothesized that during an actual drinking situation, there would be significant increases in the Adjective Check List (ACL) (Gough & Heilbrun, 1965), in autonomy, aggression, heterosexuality, and exhibition; and significant decreases in achievement, deference, order, intraception, nurturance, endurance, and abasement. Williams was also interested in assessing whether or not personality variables are affected differently in people who have drunk different amounts of liquor. His method consisted of giving five stag cocktail parties in fraternity houses at two men's colleges in the State of New York. Measure of alcoholic intake were taken before the party (condition A), during the party after two 2-oz. drinks (condition B), and at the end of the party (condition C). For each condition, S's filled out an ACL which consisted of items indicating or contraindicating each of the 15 variables representing dispositions in Murray's (1938) needpress system. Results indicated that high PDS scores were significantly associated with low scores on deference, order, affiliation, nurturance, intraception, and endurance; and with high scores on aggression, autonomy, and change. Achievement was the only variable predicted

to change (in a downward direction) which did not. In general, high PDS Ss tended to characterize themselves as autonomous, self-sufficient, aggressive, relatively unconcerned with and uninterested in others, lacking in perseverance, impulsive and disorganized, and seeking novelty and variety in experience. These data and other data reported by Williams (1967) suggest also that high PDS persons are probably not very well liked and that they may be inadequately socialized. In order to compare effects of drinking experienced by high and low PDS students, Williams (1968) computed correlations between problem drinking scores and A-B, B-C, and A-C change scores on the ACL. The correlations indicated that there were no significant differences between high PDS and low PDS on changes on any of the variables. Williams concluded that since the personality description of low PDS Ss under alcohol approximates the personality description of high PDS Ss in a sober condition, and since both high and low PDS Ss are affected similarly under alcohol, it appears that through drinking, the high PDS scorers attain a state in which they can "be themselves" without being so subject to criticism or accountability. Williams seems to be saying that low PDS individuals are better off regardless of whether or not they drink, while the high PDS individuals are worse off regardless of whether or not they drink.

In order to detect those individuals whose drinking patterns might suggest that they are potential problem drinkers, Straus & Bacon (1953) examined -- as possible criteria for potential problem drinkers -- social complications as a result of drinking, and the presence of certain warning signs. Regarding social complications (failure to meet obligations; damage to friendships; accident or injury; and formal punishment or discipline), 66% of

male users of alcohol (a "user" refers to anyone who does not totally abstain from drinking some alcoholic beverage) and 85% of female users reported no such complications as a result of drinking on a Social Complications Scale ranging from 0 to 4. Ratings of 3 and 4 were reported by only 6% of the male users and 1% of the female users. Straus & Bacon (1953) found that females in the top income group had the lowest incidence of complications, while males in the top income group had the highest incidence of complications. When religious differences were examined, the least amount of complications was noted among the Jewish students, the highest incidence among the Mormon users, with the Protestants and Catholics in between. To assess future problem drinkers, Straus & Bacon (1953) used Jellinek's (1952) warning signs of potential problem drinking: having "blackouts"; becoming drunk when alone; drinking before or instead of breakfast; and participating when drinking in aggressive or wantonly destructive behavior. Briefly, any one of these behaviors was reported by less than 15% of the male users and less than 5% of the female users. The authors stated that this group of users also drank more extensively than those students who did not experience any of the warning signs, and were much more apt to have experienced social complications. Furthermore, all four forms of behavior together suggested either an abnormal reaction to or desire for alcohol, or an asocial drinking pattern. From their findings, Straus & Bacon (1953) concluded that the drinking of alcoholic beverages is a custom; that the individual's behavior with respect to drinking in large measure reflects the behavior patterns of his own social group; and that the drinking patterns of college students largely reflect the ways of American society. In light of these conclusions, Straus & Bacon (1953) felt that "not only is society making an

unsatisfactory and unrealistic approach to the problems of alcohol, but the common controls and teachings meet with resistance and sometimes appear to stimulate the very behavior which they are intended to suppress."

Sower (1957), in discussing teen-age drinking, outlined three areas or types of problem drinking as follows: 1) "Drinking which leads to conflicts with other segments of society. Illustrations of conflicts are when drinking violates established law, or when it results in conflicts with school authorities..."; 2) "Drinking which leads to conflicts between the actions of an individual and his beliefs, sentiments, or values..."; and, 3) "Drinking which leads to detrimental consequences for the individual or for others, such as drinking which is followed by automobile driving, by illicit sexual relations, by failure to fulfill recognized social obligations, by group conflicts, and so forth."

McKay (1962) studied three groups of delinquents who used alcohol pathologically or addictively and found that all three groups qualified in the three areas of problem drinking described by Sower (1957). McKay's findings were based on a survey of 500 male delinquents admitted to the Massachusetts Youth Service Board Reception (from February to October, 1960), a study of an additional 122 boys at the same facility, and a clinical research project involving 20 boys and girls referred for treatment by correctional authorities. In general, McKay found that the delinquents characterized as addictive drinkers drank differently, under different circumstances, and for different reasons than students studied in several high schools in this country. The drinking behavior of these adolescent problem drinkers closely paralleled that of the confirmed alcoholic seen in clinical practice, except for the absence

of physical debilitation which had not had the opportunity to develop, and except for the poor control the adolescent problem drinkers exercised over their impulses. Specific to the adolescent problem drinkers, McKay found disturbances in four major areas: 1) hostility; 2) impulsiveness; 3) depression; and 4) sexual confusion. McKay attributed the presence of these problems to emotional and economic deprivation and neglect, and especially to the instability of the family's breadwinner. McKay also noted two of the psychological defense mechanisms employed by the adolescent problem drinkers: 1) denial, in order to effect a feeling of detachment or lack of concern about situations that would ordinarily produce severe anxiety; and, 2) projection, another means of adapting to stress, this time by blaming another person for a particular situation.

The McCords (1962) did a longitudinal study of a lower-class population in Boston. Their description of the subjects who later became alcoholics, written from information gathered when these subjects were preadolescent, included: "outwardly self-confident...unrestrained aggression...activity rather than passivity...emphasis on independence." The McCords' data suggested that a dependency conflict and a search for the self-image produce a "facade of intense masculinity" in the early adolescence of these males who later became alcoholics.

In some studies of drinking patterns among young people, certain personality characteristics frequently attributed to adult deviant drinkers were absent in the younger pre-problem drinkers. Jones (1968), for example, did not find the depressive tendencies, isolation, self-pity, and destructive urges frequently associated with adult problem drinkers in her young pre-

problem Ss. She stated, however, that perhaps at later ages these individuals might turn to more self-punitive and withdrawn defenses if the extroversive coping devices would become ineffective. Gomberg (1968) reviewed Jones' (1968) and the McCords' (1960, 1962) research and concluded that the potential problem drinker appears to be a boy who has less than adequate control over impulsivity, who overplays the active masculine role, and who tends to use denial as a major line of defense.

While the above mentioned studies on young problem drinkers have offered dynamically oriented explanations as to why some young people drink to the extent of harming themselves, few studies have dealt with more immediate, precipitating factors stimulating young individuals to drink alcoholic beverages. Hershenson (1965), studying adults, found that problem drinkers with a stronger sense of identity take a drink more readily when placed under stressful situations, and drink to drunkenness more readily once they began drinking. The findings from Mulford's (1963) survey on adults suggested that the drinker ("drinker" is to be defined as "user", i.e., one who does not totally abstain from consuming some alcoholic beverage) in a group in which drinking is less prevalent may be most likely to encounter difficulty because of his drinking. In our survey of the literature, we found no research on precipitating factors for why pre-problem high school or college students take a drink. Straus & Bacon (1953), while reporting on reasons for drinking for their entire sample, did not give figures on their subgroup of potential problem drinkers. In an attempt to deal with related problems, Sanford (1968) offered a theoretical scheme in which the basis for classifying a drinking pattern is its relations to the purposes, functioning, and development of the individual. Sanford

suggests three purposes of drinking: drinking may be integrative (having a place in the attainment of goals); drinking may be facilitative (in the service of constructive goals); or drinking may be escapist (designed to alleviate anxiety, or aid in the gratification of otherwise threatening impulses). He applied this same scheme to the patterns of abstinence. Such a typology, Sanford feels, would be "based on the relations of the practice to the purposes, functioning, and fate of the group or the individual." The Strassburgers (1965), also believing that the categories for describing alcohol-related behavior are too crude and too unrelated to any general theory of drinking and personality, made a distinction between "militant" and "tolerant" abstainers.

These findings lead to the second reason already mentioned for studying drinking in college -- namely, to assess more accurate indications of drinking patterns, to integrate the numerous variables which influence an individual's drinking pattern, and in general, to help complete the body of knowledge about drinking behavior in college students. It is this second reason upon which this study is primarily focused.

Some authors feel that the study of drinking behavior in young people is justified solely by the knowledge thereby obtained, and does not necessarily have to be related to alcoholism, drinking problems, etc. Plaut (1962) in summarizing the conference at Chatham, Massachusetts, on alcohol, alcoholism, and crime, stated that while a large proportion of teen-agers do "drink", i.e., consume alcoholic beverages, for most of the youngsters, drinking is not a problem and does not get them into difficulties. Of the small group who does get into trouble because of drinking, only a tiny fraction are alcoholics.

Plaut stressed that for most teen-agers, drinking is not an expression of rebellion or defiance, but part of a general pattern of attempting to be adult, to act like a grown-up, and to be independent. Also agreed upon at the conference was the idea that most teen-agers learn about drinking from adults -- often, from their own parents, and they drink because of the social and psychological meaning of this activity rather than in an effort to become intoxicated. Straus & Bacon (1953) pointed out that since youth often appears irresponsible and foolish to the older generation, it is not surprising to find that the word drinking used in connection with college students is apt to convey an impression of excess. These authors state that the adult conception of college drinking is far from reality. Lolli (1965) discussed the problem of alcoholism in terms of an inefficiency-efficiency ratio, and defined inebriety as "an alcohol induced state of inefficiency at a time when the individual needs efficiency...inebriety cannot be defined exclusively in terms of blood alcohol concentrations." Finding that the overall ratio of efficiency-to-inefficiency of American citizenry taken as a whole is perhaps the most adequate in the world. Lolli concluded that "in this age of rapid changes and overwhelming stresses, the beneficial effects of alcohol on our efficiency far outweigh alcohol's liabilities," and does not regard the effects of alcohol to be as deleterious as other do.

The majority of studies on drinking behavior in college students has related drinking patterns with demographic variables. The most extensive study relating drinking in college to various environmental variables was made by Straus & Bacon (1953). Their survey was initiated in 1947 and the collection of data took place during 1949-1951. The study included 27 colleges

representing different types: public, private, and sectarian institutions; coeducational, men's, and women's schools; White and Negro; urban and rural; large and small enrollments; and different geographical areas. The study intentionally included a relatively large number of Mormon and Jewish students, as these groups were considered to have unique drinking sanctions of particular significance. The principal technique employed in the survey was a questionnaire, which was administered to a total of 16,300 students. From the returns, 96.6% were usable and used in the final analysis. Straus & Bacon (1953) emphasized that such a high rate of usable returns is "evidence of the intelligent, sincere, and rather serious spirit of cooperation with which the vast majority of the students met the survey."

Generally, Straus & Bacon (1953), as well as other authors, have found that drinking patterns vary as a function of such demographic variables as parental sanctions, regional differences, sex differences, marital status, type and amount of education, vocational status, religious affiliation, ethnic background, race, and income.

Straus & Bacon (1953) noted that a student is more likely to consume alcoholic beverages if his family income is high, and more likely to abstain if his (or particularly, her) family income is low. Mulford (1963) found that the percentage of problem drinkers was highest in the Western part of the United States, and among males, residents of the larger cities, the divorced or unmarried, those with the least and those with the most education, and those with the highest vocational status. The lowest rates were found among Lutherans, Congregationalists, Presbyterians, Episcopalians, and Jews. A number of studies have shown that abstainers are more likely than drinkers to

have come from rural areas and small communities (Cahalan et al., 1965; University of Kansas, 1956; Krupfer, 1961; Maxwell, 1952; and Mulford & Miller, 1959).

Regarding parental influences on drinking behavior, the rate of problem drinking among teen-agers is apparently related to parental attitudes toward drinking. It seems that the earlier a child is exposed to the taste of alcohol, the less likely will be the occurrence of a drinking problem. For example, children in Italian-American and Jewish families are exposed to alcohol at a very early age -- as young as two to three years -- but grow up to have the lowest rates of alcoholism of any cultural groups in the United States (Lolli et al., 1958; and Snyder, 1958). By contrast, some of the highest rates of alcohol addiction have been found among children who were denied alcohol until the age of 21 (Bales, 1962; and Glad, 1947). Among Mormon college students who drank (Straus & Bacon, 1953), for example, there was a high percentage of "social complications" from drinking for 42% of the males and 41% of the females, although relatively few Mormon students drank. Straus & Bacon (1953) found such problems to occur in only 20% of the males and 2% of the females among the relatively many Jewish students who drank. In general, Straus & Bacon (1953) found that parents' attitudes toward their children's drinking practices were closely related to the parents' own drinking practices. Straus & Bacon (1953) stated that "the influence of parental drinking practices upon those of sons and daughters cannot be stressed too strongly." Of sons who were users, 74% reported that their fathers drank and 54% reported that their mothers drank; of daughters that were users, 86% reported that their fathers drank and 72% reported that their mothers drank; of sons who abstained, 65%

reported that their fathers abstained and 81% reported that their mothers abstained; and of daughters who abstained, 58% reported that their fathers abstained and 78% reported that their mothers abstained. According to Blum & Blum (1967), how children are introduced to drinking depends upon the ethnic group of which they are members, and on the correlated fact of cohesiveness of families and the extent to which families "teach" drinking behavior. In her Berkeley study, Knupfer (1961) found that whether or not the respondent's parents drank and/or approved of liquor had a marked influence on whether or not the respondent was an abstainer, but had much less correlation with how much people drank, if they drank at all. There has been agreement on this finding in reports of other studies (Straus & Bacon, 1953; University of Kansas, 1956; and University of Wisconsin, 1956). Knupfer (1961) also found that the influence of the mother's drinking appears to be considerably greater than the influence of the father's drinking for both male and female respondents. In the Straus & Bacon (1953) study, the stronger influence of the mother's behavior was apparent among college women but not among college men. In her study, Knupfer (1961) noted that if both parents drank, the proportion of drinkers among their male and female children (the respondents in her study) was the same, whereas if one or both parents was an abstainer, their female children were less likely to drink than their male children. These findings support Straus & Bacon's (1953) position that women are more responsive to parental sanctions against drinking and more likely to drink only when their home background fully encourages drinking. Other research (National Center for Prevention & Control of Alcoholism, 1967) has also shown that drinking patterns of teen-agers are learned from adult models, and more specifically, from the

adult pattern in the same community. If the parents drink, the greater the probability that their teen-age children will drink; similarly, parents who abstain generally raise children who will abstain.

As mentioned before, negative sanctions originating in the family are associated with an impressively high incidence of abstainers for both sexes. Church sanctions appear more effective than no advice, while sanctions coming from the school are actually associated with a greater incidence than no advice at all (Straus & Bacon, 1953). A comparison of the four religious groups by incidence of drinking in relation to advice from the church to abstain showed no difference for Protestants, Jews, Mormons, and Catholics (Straus & Bacon, 1953). Another study examining the effects of both religious behavior and parental sanctions was done by Shaw & Campbell (1962). They investigated 210 male freshmen at Duke University and the University of North Carolina regarding parents' feelings about their use of alcohol, their own drinking behavior, their informal associations, and religious attendance. The authors also had the students respond to a series of hypothetical dilemmas involving the use of alcohol. Results indicated that those students who drank without parental approval were similar to those students who drank without parental opposition in the amount of drinking, informal association, and low frequency of attendance at religious services. Those who drank without parental approval were, however, similar to non-drinkers in their religious training, religious attendance prior to college, and in some of their responses to hypothetical dilemmas. It was concluded that those who drank, even though they felt a moral pressure not to, tended to seek support for their deviant behavior through informal association rather than through parental attitude.

Examining only the religious variable, large differences have been shown between drinkers and abstainers with respect to religious affiliation. Many studies comparing the drinking patterns of Protestants and Catholics have found that the proportion of abstainers is much less among Catholics than among Protestants (Knupfer, 1961; Maxwell, 1952; McCarthy, 1956; Mulford & Miller, 1959; Riley & Marden, 1947; Straus & Bacon, 1953; and the University of Kansas, 1956). Cahalan et al. (1965) found that Jews and conservative Protestant sects (e.g., Methodists, Baptists, Congregationalists) showed a lower incidence of heavy drinking than other religious groups. With respect to occasional consumption of alcoholic beverages, Cahalan et al. (1965) found that 82% of the Jews in their sample drank at least occasionally, in contrast to 65% of the conservative Protestants. Knupfer & Room (1966) studied drinking patterns and attitudes in Irish, Jewish, and White Protestant men. Their data from 755 mail questionnaires filled out by 224 Irish, 344 Protestant, and 187 Jewish men showed considerable ethnic differences in drinking patterns, and particularly in quantity drunk at a sitting and recent intoxication experience. The Irish were highest in terms of quantity drunk and recent intoxication experience, the White Protestants being next, and the Jews the lowest on these two variables. While Jews with no religious affiliation were more likely to have had recent intoxication experiences, Knupfer & Room's (1966) sample showed no differences in intoxication experience between Orthodox, Conservative, and Reform Jews. The authors pointed out that the ethnic differences in drinking patterns continued to be substantial even for their generation Ss.

Regarding the religious factor with respect to college students, Straus & Bacon (1953) found that differences in the incidence of drinking among

religious groups were consistent with the different sanctions on drinking. These authors noted the greatest incidence of drinking -- for both sexes -- among the Jewish students, and the smallest incidence among Mormon students. Catholic students and Protestant students were, respectively, second and third in order. Among the religious groups where negative sanctions prevail, there were many more female than male abstainers. Again, this suggests that as sanctions against drinking in a college group are stronger, they are more effective for female students than for male students. With respect to extent of religious affiliation, Straus & Bacon (1953) generally found that those students who participated in religious activity also observed their religion's drinking sanctions. The authors pointed out that religious participation and incidence of drinking may reflect more basic factors, but did not elaborate on this position. Astin (1968) obtained questionnaire data from 127,212 entering freshmen in 246 college institutions regarding socio-economic background, academic and extracurricular achievements in high school, and future educational and vocational plans. The data was compiled from items on the Inventory of College Activities (ICA), the College Characteristics Index (CCI), the College & University Environmental Scales (CUES), and the Environmental Assessment Technique (EAT). Astin (1968) hypothesized -- and found -- that drinking and religiousness are negatively related; i.e., "if one knows the extent of student drinking that occurs on the campus, he can use this information as a fairly accurate inverse measure of the amount of religious behavior among the students." Astin (1968) attributed this phenomenon to two factors: the kinds of students initially recruited by the college, and the degree of administrative permissiveness which may contribute to shaping these patterns of

student behavior.

With respect to sex differences in patterns of drinking behavior, Knupfer (1961) conducted 570 interviews with a representative cross-section of the adult population of Berkeley, California, and found that male respondents clearly predominate among heavy drinkers, whereas moderate drinkers and abstainers are similar in having a higher proportion of female respondents in their ranks. Clark (1964) studied sex differences in alcoholic beverage usage, basing his data on 1268 interviews conducted in San Francisco in 1961. Among his findings, Clark observed that a greater proportion of women than men drank for social reasons, while a greater proportion of men than women drank for relaxation reasons and for personal effects reasons (e.g., reduce anxiety, forget problems, relieve tension, etc.). Cahalan et al. (1965) surveyed drinking practices in Hartford, Connecticut and in Berkeley, California, and found that men drank more than women -- the difference being more pronounced in Hartford than in Berkeley. In general, Cahalan et al. (1965) noted that a combination of three variables -- sex, age, and income -- accounted for a large share of the variance in drinking behavior in both Hartford, Connecticut and Berkeley, California. Younger, well-to-do men drank the most and older, poorer women drank the least. Child, Barry, & Bacon (1965) surveyed 139 societies, mostly preliterate, and found a definite sex difference in 53 societies and no evidence of a sex difference in 36 (the remaining 50 societies were excluded for a variety of reasons. They found that societies with a definite sex difference in drinking tended significantly to have a large sex difference in child-training practices and also tended to have characteristics of settlement pattern, subsistence economy, and child training which appeared to encourage or require

greater differentiation between the sexes in their adult role. Generally, the results were consistent with the hypothesis of dependency conflict in males as a major source of motivation for increased drinking in males.

Specific to sex differences in college students, studies have generally indicated that drinking is more frequent among males than among females. It has already been mentioned that Straus & Bacon (1953) found a higher incidence of drinking among men. Jessor et al. (1968) studied 88 students -- 33 male, 50 female -- from introductory psychology classes at the University of Colorado and found that the sex difference in total alcohol intake was accounted for entirely by the difference in beer consumption. Wine and spirits yielded the same quantity-frequency scores for both males and females. Jessor et al. (1968) also found a significant sex difference on a measure of drunkenness, the men's frequency of having been drunk or pretty high in the past year being higher than the women's frequency. Finally, the men reported significantly more drinking-related complications than did the women.

Regarding racial differences, limited evidence suggests that the incidence of alcoholism is higher for Negro than for Caucasian men (Bailey, Haberman, & Alksne, 1965; Maddox & Borinski, 1964; and Zax, Gardner, & Hart, 1964). Maddox & Borinski's (1964) review of the literature describing the drinking behavior and consequences of drinking among American Negroes revealed three patterns: 1) drinking is prevalent among Negroes; 2) it is associated with a high incidence of personal and social complications; and 3) among Negroes with middle-class backgrounds, self-disparagement is a major factor in the complications associated with drinking. Low self-esteem was found to be a correlate of both preoccupation and drinking for effect. Lemert (1954),

based upon his study of drinking problems among Northwest Coast Indians, hypothesized that individuals who have been indoctrinated with a "middle class drinking ethic or perhaps with that which has been called the 'Protestant Ethic'" will symbolize drinking as evidence of loss of control over the self, a cardinal sin in its terms. Specific to racial differences in drinking patterns of college students, Maddox & Williams (1968) investigated the relationship between drinking behavior and socio-economic status, self-esteem, and religious affiliation of 262 male freshmen in a state-supported Negro college in North Carolina. Each S's drinking was measured by a quantity-frequency index based on the number of drinks, converted to absolute alcohol, he ordinarily consumed on a drinking occasion, combined with the reported frequency of such occasions in a given period. Socio-economic status was measured by Hollingshead's (1958) two-factor Index of Status Placement (ISP) for heads of household. Self-esteem was measured by acceptance or rejection of 15 essentially derogatory descriptive statements which a person might apply to himself and of 6 similar statements which significant-others (e.g. family and friends) might use to describe him. Lenski's (1963) measures of association, orthodoxy, and devotionism were used to estimate religious involvement and orientation. The resulting findings were: 1) Of the 262 freshmen, 76% were drinkers (i.e., users). In light of the older ages of most of these freshmen, this proportion was considered quite high as compared to Caucasian college male freshmen. 2) The most commonly reported problem associated with drinking among Negro men -- trouble with the police -- was infrequent among the Negro collegians. 3) On the basis of Mulford's (1966) preoccupation-with-alcohol scale for identifying problem drinkers, 27% of the Negroes in Maddox & Williams' (1968) sample were

in scale types which Mulford had found to be reasonably predictive of trouble with drinking. 4) Of the 262 freshmen, 49% of the abstainers had high self-esteem, while only 19% of the heavy drinkers had high self-esteem. However, high self-esteem was found to be not simply a function of abstinence, but also of religious and socio-economic background: the higher-status Protestant who abstained was most likely to indicate high self-esteem, while the extent of drinking was not associated with self-esteem among the lower-status freshmen. Maddox & Williams (1968) interpreted this last finding in terms of the limited exposure of the lower-status freshmen to the conflicting aspects of drinking prominently felt by the middle status (i.e., loss of control vs. sociability and conviviality).

Demographic norms specific to drinking on the college campus have covered such variables as type of college, year in college, drinking habits of friends, choice of beverage, quantity and frequency of alcohol consumption, degree and frequency of intoxication, drinking places, and effects from drinking.

Regarding types of colleges, Straus & Bacon (1953) found that among male students, users of alcoholic beverages included 92% of those attending private colleges, 80% of those attending public colleges, and 65% of those attending private colleges controlled by "dry" religious denominations. Furthermore, in the private "dry" colleges, the proportion of abstainers among women was much higher than that among men. In the colleges where drinking was most prevalent, the incidence of drinking among women came closest to approximating that for men. Where there was less drinking, there was a marked discrepancy between the incidence for men and for women. Straus & Bacon (1953) interpreted this finding as suggesting that where sanctions against drinking are strongest, their

effectiveness is much greater for women than for men. X

The survey by Straus & Bacon (1953) showed that the incidence of drinking increased with each college year. For men, there was an increase from 69% among freshmen to 87% among seniors; for women, the incidence was from 46% among freshmen to 77% among seniors.

Straus & Bacon (1953) also reported that students who stated that the majority of their close friends drink were usually drinkers themselves, while those students whose close friends abstained were generally abstainers also.

Straus & Bacon (1953) found that most drinking by college women occurs in mixed groups. Men, in addition to drinking in mixed social groups, drink even more frequently in all-male fellowships. Under the all-male circumstances, the usual beverage is beer, while in the mixed groups, it is more likely to be spirits. The students' choice of beverage appeared to be unrelated to several of the factors which were found to be associated with the over-all question of use or abstinence: family income, religion, and ethnic group. Instead, variations in choice were seen to accompany such factors as drinking situation or drinking companions. Fink (1965) obtained opposite results regarding beverage choice. He conducted a home-interview study of alcoholic-beverage drinking practices among nearly 400 male adult drinkers in and around Oakland, California. Fink (1965) found that in social drinking situations, personal choice of beverage persists to some extent, even in the presence of social norms -- wine drinkers would be more likely than others to order wine of these occasions, beer drinkers to order beer, and distilled-beverage drinkers to order cocktails or highballs. It should be emphasized here that Fink (1965) was studying a general male adult group, which might not be as concerned with peer

approval as are college students.

Straus & Bacon (1953) indicated that most students reported first getting tight in the presence of close friends rather than family. Again, for most men, it was close friends of the same sex; for most women, it was close friends in mixed company. Of all of the students who had ever been tight, 75% of the men and 47% of the women reported it had happened before they entered college. Straus & Bacon (1953) concluded that college did not figure prominently as the place where initial intoxication was experienced.

With respect to college drinking regulations, Straus & Bacon (1953) found that in those colleges having rules against drinking, relatively few students drink -- but at these "dry" schools, those students who do drink tend to drink more frequently and more heavily and are more often involved in drinking-related incidental problems than are students of colleges with a more liberal attitude toward drinking. As one student is quoted to have said: "If you have to drive fifty miles to get a drink, you don't take just one drink."

The findings of Straus & Bacon (1953) on quantity, or amount, of alcohol consumed did not support the stereotype of heavy drinking by most students. Making adjustments for differences in the alcohol content of various types of beverage, Straus & Bacon (1953) found that the average quantity of alcoholic beverages consumed at one sitting showed rather wide variation depending on the type of beverage and the sex of the drinker. Both men and women consumed more alcohol at a sitting when drinking spirits than when drinking beer or wine. More than 95% of students of both sexes consumed only smaller or medium amounts of wine, and more than 90% consumed smaller or medium amounts of beer.

Frequency of drinking by students was not found to be widespread (Straus

& Bacon, 1953). Over 40% of the men and more than 50% of the women who drank did so no more than once a month. Approximately 20% of the men and 25% of the women who drank did so less than 6 times a year. Only 21% of the men and 10% of the women drank oftener than once a week. Students were asked to indicate whether they drink, on the average, more often at college or on vacation. Half the women reported no difference, while the rest divided evenly between college and vacation. Half the men, too, reported no difference, but 15% reported more frequent drinking at college and 35% more drinking on vacation.

Regarding student drinking places, Straus & Bacon (1953) found that three main types of beverage were ordinarily consumed in different settings. Most wine drinking took place in homes (74% for men, 82% for women); beer drinking usually occurred in restaurants, taverns, or bars (60% for men, 47% for women); for spirits the night club was the chief setting for both sexes. Straus & Bacon (1953) found it quite significant that very small percentages were shown for fraternity and sorority houses as the usual setting for any type of drinking, in light of society's accusations that these organizations encourage drinking. The authors also found that there was not a meaningful difference between fraternity and non-fraternity students with respect to drinking customs. They concluded that drinking behavior does not stem from the society per se but rather from the current practices of the students who are associated in membership. The finding that over 70% of the male athletes and over 60% of the female athletes were users of alcoholic beverages might be partly a function of the many social activities in which these people must participate.

In determining effects from drinking, Straus & Bacon (1953) defined "high", "tight", and "drunk" as follows: "high" indicates a noticeable effect

without going beyond socially acceptable behavior (increased gaiety, slight fuzziness of perception, etc.); "tight" suggests unsteadiness in ordinary physical activities, or noticeable aggressiveness, or oversolicitousness, or loss of control over social amenities or of verbal accuracy, or slight nausea; "drunk" suggests an overstepping of social expectancies (short of complete passing out), loss of control in ordinary physical activities, and inability to respond to reactions of others. Straus & Bacon (1953) also incorporated the levels of "no appreciable change in behavior or attitude" and "passed out" in order to complete the possible range of effect. The majority of students reported that on most occasions when they drank, they were aware of no appreciable change in behavior. Nearly 50% of the men users and over 80% of the women users reported being tight never or less than 6 times in their lives. About 10% of the men and less than 1% of the women reported being tight more than 50 times. On the level labeled "drunk", 90% of the women users and 50% of the men users reported never having been drunk or only once. The most advanced stage, "passing out", occurred never or once or twice by 90% of the male users and 99% of the female users. Further inquiry revealed that early intoxication was not merely a product of childhood experimentation, but rather a function of some established pattern. Straus & Bacon (1953) concluded that background cultural and social forces are very important in the adoption or non-adoption of a behavior pattern and its mode, frequency, intensity, and individual manner of expression; but after the behavior pattern is adopted, individual, situational factors take on increasing significance. Often, the extent and nature of the resulting pattern is affected by the level of clarity and explicitness of the individual's cultural norms. For example, for the Mormons,

there is no norm for drinking. Thus, extreme patterns of drinking behavior would be likely since the behavior itself represents rejection of social rules.

Relatively very little research has been done on the psychological aspects of drinking in college, i.e., anxiety about drinking, reasons for drinking, personality differences between drinkers and abstainers, relationships between personality features and drinking patterns and/or with demographic variables. Even less of this type of research has employed psychological tests.

With respect to subjective reports of psychological reactions to drinking in college students (questionnaires, check-lists, surveys, etc.), most investigators have concluded -- based upon their inquiries -- that college users of alcohol are not particularly anxious about their drinking behavior, that they drink primarily for social reasons, and that they tend to express their impulses. In Straus & Bacon's study, anxiety over drinking was expressed by 17% of the men and 10% of the women; these reported that they either feared the long-range consequences of their drinking, or had felt that they might become dependent upon or addicted to alcohol, or both. In the majority of cases where anxiety was expressed by men, it was associated with a relatively high incidence of intoxication, of difficulties resulting from drinking, or of warning signs of potential problem drinking. Straus & Bacon (1953) considered this "a highly significant finding, for it suggests that the potential problem drinker begins to recognize something different about his own drinking behavior and is often fearful of the consequences at a relatively early stage of development...Constructive counseling at this early stage might contribute effectively toward preventing future progression into alcoholism." As for reasons for drinking, Straus & Bacon (1953) found a high degree of agreement between men and

women in the reasons they reported for drinking. The most frequent reasons given by men included: enjoyment of taste; to comply with custom; to be gay; to relieve fatigue or tension; to get high; and to get along better on dates. Reasons most frequently given by women included: enjoyment of taste; to comply with custom; to be gay; to relieve fatigue or tension; and to get along better on dates. Straus & Bacon (1953) indicated that these reasons have primarily a social connotation and are of greater importance than those suggesting primarily a psychological motivation (e.g., as an aid in meeting crises; to get drunk; for a sense of well-being; and in order not to be shy). Regarding personality features assessed through questionnaire-type techniques, Strassburger & Strassburger (1965) studied a sample of college students and found that impulse expression is related to highly positive attitudes toward social drinking. Astin (1968) found that students in colleges where the rate of drinking is relatively high are more argumentative, independent, and competitive in their behavior than are typical students. Also, they tend to be brighter academically, to be more highly motivated toward graduate training, and to come from higher socio-economic backgrounds.

As mentioned before, the amount of psychological testing done to determine reasons for drinking among young people -- especially college students -- has been sparse. This author could find only three such studies (Jessor, Carman & Grossman, 1968; Kalin, McClelland, & Kahn, 1965; and Lundin & Sawyer, 1965.)

Kalin, McClelland, & Kahn (1965) reported three experiments in which a total of 124 college males wrote TAT stories at three points during social drinking, either in living room discussion groups or at stag cocktail parties. Under similar conditions, 62 comparable Se wrote TAT stories when only

non-alcoholic beverages were served. In contrast to the control Ss whose protocols showed almost no changes, the protocols of the experimental Ss showed significant increases in various sentient thoughts with moderate drinking, and decreases in various inhibitory thoughts with heavier drinking. Among the former, meaning contrast and physical aggression thoughts increased up to a maximum at 3-4 drinks (containing 1.5-oz. shots of 86-proof alcoholic beverage). They then decreased and were replaced by an increasing number of physical sexual thoughts from 6 drinks on. The decline in inhibitory thoughts -- aggression restraint, fear, anxiety, and time concern -- occurred regularly only after heavy drinking from 6 drinks on. Physical aggression thoughts recurred again at high frequency in those Ss who drank very heavily (10 drinks and up). A "need for Sentience" score -- based on the pre-party TAT stories, and consisting of the sentient categories which increased minus some of the inhibitory categories which decreased -- predicted the amount of alcohol that would subsequently be consumed.

Lundin & Sawyer (1965) attempted to discover what relationships, if any, exist between test anxiety, drinking patterns, and scholastic achievement in a group of male college undergraduates. They gave the IPAT Anxiety Scale and a questionnaire constructed to evaluate drinking patterns to 40 male fraternity students at Hamilton College. Their results were the following: 1) The three measures of alcoholic consumption (the amount consumed per week; the number of drinking days per week; and the effect index) had a statistically insignificant but positive relationship to test anxiety. 2) Of the three measures, the effect index was the most definitely related to test anxiety. This result agrees with the common attitude that those individuals who drink to achieve some stage of

intoxication do so to be relieved of some tension and anxiety. 3) Anxiety and scholastic achievement show some positive relationship. Here, the authors state that anxiety over studies minimizes the tendency of some students to drink. 4) The effect index and the number of extracurricular activities are positively related. The authors posited an operative sociability factor to explain this finding. 5) Finally, since a large number of the heaviest drinkers came from private preparatory schools, it is possible that attitudes toward drinking may have developed prior to coming to college. These attitudes may have developed out of the kind of secondary school situation or reflect family attitudes with regard to drinking.

Jessor, Carman, & Grossman (1968) attempted to relate personality factors to variations in the use of alcohol among 300 students from introductory psychology classes at the University of Colorado. The authors hold the position that drinking behavior can be essentially adaptive, serving to attain goals, attain substitute goals, and cope with failure. With this in mind, they hypothesized that when expectations of need satisfaction in academic achievement (ACH) and peer affection (AFF) are low, the measure of alcohol intake, drunkenness, and drinking-related complications would tend to be higher. Expectations of needs for achievement and peer affection were assessed by means of a 30-item questionnaire -- 15 ACH items and 15 AFF items. The measure of alcoholic intake was obtained by determining a quantity-frequency (Q-F) index; the measure of drunkenness consisted of a single question: "How many times have you gotten drunk or pretty high in the last year?" and Ss circled the appropriate choice; the measure of drinking-related complications was assessed using Straus & Bacon's (1953) four categories of drinking-related problems:

formal punishment or discipline, accidents or injuries, damage to friendships, and failure to meet everyday obligations. In analyzing their results, Jessor et al. (1968) assigned the Ss to one of four groups: 1) High ACH/High AFF; 2) High ACH/Low AFF; 3) Low ACH/High AFF; and 4) Low ACH/Low AFF. The authors' hypothesis was supported: the Low ACH/Low AFF group had the highest score ($p < .05$) on each of the three drinking measures. Next, Jessor et al. (1968) investigated whether students with low expectations of goal attainment actually attribute more problem-solving functions to their use of alcohol than do other students. The authors presented the Ss with a list of drinking functions to which they were asked to respond by checking all of those which characterize their own reasons for drinking. The four categories of functions were: 1) Positive Social Functions (PS) -- drinking for the convivial pleasure which surrounds it; 2) Conforming Social Functions (CS) -- drinking because it is appropriate to, or necessary for, certain social situations; 3) Psychophysiological Functions (PH) -- drinking to relieve physical symptoms; and 4) Personality Effects Functions (PE) -- drinking as an escape from, or relief for, psychological inadequacies, problems, or shortcomings, or as a way of achieving goals not otherwise attainable. The authors predicted that a negative relationship should exist between expectations of need satisfaction and the degree to which PE functions were attributed to drinking. They also anticipated a negative relationship with the CS and PH functions. A positive relationship was expected between PS functions and expectations of need achievement. Their findings partially supported their hypothesis, findings in the women being more consistently supportive than in the men. For the men, it was found that the higher the expectation of achievement, the larger the proportion of functions

chosen which are attributable to PS functions; the lower the expectation of affection, the higher the proportion of functions chosen which are attributable to the PH or the PE function. Jessor et al. (1968) regarded their study as representing a start in the direction of relating personality factors to variations in the use of alcohol among youth of college age. It might be noted that their study took no account of demographic variables. Furthermore, students who abstain from drinking alcoholic beverages were excluded from the study.

Specific to high school students, most of the studies on the use of alcoholic beverages have focused on drinking practices (Jones, 1957; Maddox, 1962; Maddox & Borinski, 1964; Slater, 1952; Sower, 1958; and Spalding, 1956). A number of surveys have reported attitudes of high school students toward the use of alcoholic beverages, but these attitudes are usually inferred from drinking behavior (Heath, Maier, & Remmers, 1957; Hofstra Research Bureau, 1953; University of Kansas, 1956; and the University of Wisconsin, 1956). A few studies have incorporated some data on what teen-agers think about their own drinking and that of adults, but the emphasis has been on drinking practices (Imre, 1963; Landman, 1952; University of Kansas, 1956; and University of Wisconsin, 1956). Blane, Hill, & Brown (1968) posited that prior to their study, no studies of high school students have attempted to relate personality variables to attitudes toward the use of alcohol. These authors attempted to relate the personality characteristics of alienation and self-esteem to attitudes toward drinking in high school students. They hypothesized that alienation would be positively -- and self-esteem negatively -- related to the favorability of attitudes toward irresponsible use of alcohol, and by

implication, that alienation and self-esteem would be negatively correlated to each other. The sample consisted of 256 boys and 270 girls in grades 9 through 12. Attitude measures consisted of the Williams Attitudes toward Temperate & Irresponsible Use of Alcohol Scales. Alienation was measured by a slightly modified version of the Dean Alienation Scale (Dean, 1961), which was divided into three subscales: social isolation, powerlessness, and normlessness. Self-esteem was measured by the Feelings of Inadequacy subscale of the Janis & Field Personality Questionnaire (Hovland & Janis, 1959). Results showed that high school students' attitudes toward irresponsible use of alcohol are related to the alienation subscales of normlessness and powerlessness, but not to the subscale of social isolation. Furthermore, the students' attitudes toward irresponsible use of alcohol were not related to self-esteem as expected, although alienation and self-esteem did show a strong negative association. The authors concluded that what the test of self-esteem measures is not related to attitudes toward irresponsible use, but rather, to alienation. They also suggested that social isolation and attitudes toward irresponsible use of alcohol might be totally unrelated.

The findings from the studies using psychological tests are very similar to results from inventory-type questionnaires and surveys: college students drink primarily for social approval, for relief from the tensions promoted by college life, and to facilitate expression of impulses. Whatever pattern of drinking they establish, it is usually some function of long-term environmental variables.

Because of the lack of literature relating demographic variables, psychological variables, and drinking practices among college students, the present investigation is largely an exploratory one, attempting to assess some of these relationships.

CHAPTER II

METHOD

Subjects

The Ss were 320 Caucasian, Catholic undergraduate students -- 40 males and 40 females at each year level (Freshman, Sophomore, Junior, and Senior) -- enrolled in psychology classes at Loyola University. The mean (\bar{X}) and standard deviation (SD) of ages for each class were the following: Freshmen -- \bar{X} =17.88, SD =0.48; Sophomores -- \bar{X} =19.18, SD =0.96; Juniors -- \bar{X} =20.40, SD =1.59; and, Seniors -- \bar{X} =21.48, SD =1.57.

Instruments

The test material included the Edwards Personal Preference Schedule (EPPS) and a drinking questionnaire constructed by the investigator (See Appendix II).

Procedure

The drinking questionnaire and the EPPS were group administered to the students in regular classroom situations. The instructions given to the Ss were: "I am a graduate student at Loyola University and am doing my Doctoral Dissertation on 'Drinking in College'. This involves having undergraduate students fill out two things: a personality test and a drinking questionnaire. I emphatically emphasize that this is a survey-type research on groups -- not on information about individuals. Everything you fill out is to be anonymous. There are some items on the drinking questionnaire which could easily be

considered personal, and I could not expect you to answer them honestly if you even thought I could in any way identify the person who answered them. I urge you, therefore, to please answer truthfully, both for the sake of my project, and because there is no reason why you shouldn't. For anyone who is interested in the results of this study, I will be happy to send you a summary if you leave your name and address on a separate index card when you return the forms. In taking the personality test, make sure you mark your answers on the answer sheet -- not in the question booklet. The instructions are on the cover of the test booklet and very easy to understand. In filling out the drinking questionnaire, make sure you answer every question. Are there any questions?"

CHAPTER III

RESULTS

Frequency counts were made on the discrete variables (e.g. nationality, yes/no items, etc.) of the drinking questionnaire. Frequencies were tallied for the sample as a whole, as well as for males and females separately, for the four college classes (Freshman, etc.), and for the eight subgroups (male Freshmen, female Freshmen, male Sophomores, etc.). The frequency counts were converted into percentages in order that the data could be more meaningfully understood. Only those considered relevant to the present investigation are reported in the results. All of the frequency counts and percentages can be found in Appendix II, next to the appropriate item. Since much reference is made to the questionnaire items in Appendix II, such documentation is indicated in the Results section by providing the number of the question in parentheses -- for example, findings on item 21 of the questionnaire in Appendix II would be referenced by (q.21).

Means, standard deviations, and 2x4 (sex x college class) analyses of variance were computed for each of the EPPS variables and for each of the continuous variables in the questionnaire were quantified on the basis of individually affixed rating scales (indicated in Appendix II, next to the appropriate item), so that their means and standard deviations would refer to their particular rating scales. Therefore, much of the narrative presented is interpretive, means and standard deviations of various items being mentioned in

the results only where appropriate. These names and standard deviations can be found in Appendix II, next to the appropriate question. Significant F ratios are also entered next to their respective questions in Appendix II; these too will be incorporated in the results where relevant. Duncan multiple range tests on means were performed where closer inspection of significant F ratios was thought necessary. Finally, Pearson product-moment correlation coefficients were computed between all EPPS and continuous questionnaire variables. Such non-relevant material as EPPS intercorrelations are not reported.

The results are presented in five main sections: 1) Demographic data; 2) Parents' drinking patterns; 3) Pre-college drinking patterns; 4) Current drinking patterns; and 5) Relationships between personality variables and questionnaire variables.

Demographic data

The first section of the results is a description of the sample based on data assessed from questionnaire items. The following characteristics are covered: nationality; residence; church attendance; dating practices; high school background; smoking patterns; and socio-economic background.

Nationality The nationality of S was determined by ascertaining each parent's nationality. The frequencies and percentages of the represented nationalities are included in Appendix I. A frequency count indicated that 43% of the sample came from Polish/Polish (15%), Irish/Irish (14%), and Irish/German (14%) backgrounds. Italian/Italian background comprised 6% of the total N, while German/German, German/French, French/Irish/German, and Irish/English nationalities each occurred with a frequency of 5%. Other nationalities were

each represented by less than 5% of the sample.

Residence. Regarding permanent locale (q. 8,9) most students in the sample reported residing in a city (pop. 500,000 or more) or in a suburb of a city; 75% of the students claimed living in an owned house and 77% with both parents. While attending the university, 44% of the Ss commuted from home, 35% lived in a dormitory, and the remainder lived either in a fraternity or sorority house, apartment rented for the duration of the school term, or 'other' (q. 11).

Church attendance. The overall average frequency of church attendance for the sample was reported as slightly less than once a week (q. 18).

Dating practices. On the average, students reported dating between twice a month to once a week -- the frequency of dating increasing with college class ($F(\text{classes})=5.07, p < .01$). With respect to going steady, 33% of the sample reported that they were presently going steady (including married Ss), 57% endorsed 'no', and 10% checked 'don't date' (q. 19,20).

High school background. Regarding type of high school attended (q.25), 81% of the males reported attending a parochial/all-boys school and 69% of the females reported attending a parochial/all-girls school. The females reported a significantly higher high school total grade average than the males ($F(\text{sexes})=27.43, p < .01$), the males approximating a B average and the females averaging closer to A-/B+ (q.26). With respect to whether the average grade reported was considered a fair indication of S's true ability (q.27), a Pearson r between estimated fairness and average grade indicated that the higher the reported grade average, the more fair S thought it was ($r=.57, p < .01$).

Smoking patterns. With respect to smoking 48% of the total N reported

that they smoked some type of tobacco and 51% claimed that they did not (q.22). Cigarettes comprised the predominant choice for both males and females (q.23). While there was no significant difference between the sexes for number of cigarettes smoked per day, there was a significant increment in cigarette smoking over the classes ($F(\text{classes})=3.24$, $p<.05$). A significant sex difference with respect to cigar and pipe smoking was clearly noted ($p<.01$), males smoking cigars and pipes considerably more than females.

Socio-economic background. The average gross annual income reported by the sample was slightly below the \$10,000-\$15,000 range (q.17). The average occupational level of father of fathers fell between 'clerical, sales, etc.' and 'managers, officials, & proprietors' (q.14); 95% of the Ss reported that their father does/did work steady (q.15). Regarding age of parents, the mean age of fathers was 51.12 years with an SD of 6.64, and the mean age of mothers was 48.52 years, with an SD of 6.50 (q.12,13). Both of these means were significantly different between college classes, increasing with class increment ($p<.01$).

Parents' drinking patterns

The following results are based upon information yielded from q.74-91. With respect to parents' drinking, 97% of the sample reported seeing their father take an alcoholic beverage at some time, while 95% endorsed this for their mother. On the average, Ss claimed having seen their father take a drink between 2-4 times a month to 2-3 days a week. For mother, the average fell between 6-12 times a year to 2-4 times a month. Regarding alcoholic beverage preference, beer and liquor tied as first choice for the father -- 42% of the

Ss endorsing beer as the alcoholic beverage father drank most often, and 42% of the Ss endorsing liquor as the beverage most often consumed by father. Liquor was the alcoholic beverage reported as most often drunk by mother by 49% of the Ss, with wine (19%) being next. Father was seen high at some time by 58% of the sample, and mother was seen high at some time by 39%; 35% of the sample had seen their father tight while 14% had seen their mother tight; 22% reported seeing their father drunk at some time, while only 6% claimed seeing their mother drunk; 8% of the Ss endorsed seeing their father pass out from drinking, and 2% of the Ss affirmed this for their mother. Regarding whether a parent was ever hospitalized for alcoholism or some related disease, 4% answered 'yes' for their father, and 1% answered 'yes' for their mother. To the question of whether either parent ever missed a day (or more) of work as a result of drinking, 14% of the sample answered 'yes', 83% answered 'no', and 3% responded 'I don't know'. Membership of either parent in Alcoholics Anonymous was endorsed by 3% of the Ss.

Pre-college drinking patterns

The data on pre-college drinking practices are found in Appendix II, q.30-36,41. Taking the total N as a whole, the mean age at which alcohol was reported as first tasted was 9.41 years, with an SD of 4.19 (for those Ss who reported never having tasted an alcoholic beverage, the mean age for the sample was entered for calculations). Most of the students (74%) reported having tasted some alcoholic beverage before the age of 11, and of these students, 92% had parental approval. Beer, wine, and liquor had all been tasted before age 11 by 24% of the "tasters" (i.e., those who tasted alcohol before age 11); both wine and beer by 20% of the "tasters"; and beer only by 18% of the "tasters".

The remaining "tasters" designated wine only (12%), liquor only (9%), beer and liquor (12%), wine and liquor (3%), or 'other' (2%) as the sampled beverages. Inspection of these figures indicated that beer was predominant among the beverages tasted, having been sampled by 62% of the 'tasters'. No significant sex or class differences were noted here. Of those who tasted alcohol before age 11, 64% endorsed 'occasional sips' as the circumstance under which they drank, and 26% reported that their drinking was part of a regular family custom. With respect to whether or not those tasting an alcohol beverage before age 11 liked it, 39% of this group endorsed 'yes', 39% endorsed 'no', and 22% claimed no particular reaction one way or another.

Examination of reported drinking practices after age 11 revealed that 49% of the sample had their first drink in their own home, 23% had their first drink in the home of parents' friend(s), and 16% had the first drink in the home of their own friend. Of the total N, 3% claimed that they never tasted alcohol after age 11.

Current drinking patterns

Frequency of drinking. The data on frequency of drinking generally indicated that drinking frequency increased with an increment in college class; drinking frequency was not significantly different between the sexes; and different types of drinks were consumed in varying frequencies depending upon class and sex.

A comparison of frequency of drinking in college to frequency of drinking in high school (q.40) indicated that on the average, freshmen drank between 'less' to 'just as' frequently in college than they did in high school, while

sophomores, juniors, and seniors drank between 'just as' to 'more' frequently in college than in high school. A Durean analysis of mean differences between classes revealed a significant difference ($p < .01$) on this variable between freshmen on the one hand, and sophomores, juniors, and seniors on the other.

Regarding frequency of drinking during the last school year (q.42), the sample as a whole reported drinking approximately 6-12 times during the school year. Tables 1 and 2 indicate that frequency rose with an increment in class, and that the difference between freshmen and the other three classes was significant ($p < .01$), sophomores, juniors, and seniors drinking much more frequently during the last school year than freshmen.

Quantity of alcohol consumption. Tables 3-9 include the means, standard deviations, and F ratios for average and maximum amounts of alcohol intake at any one sitting during the last school year, by the sample. The average amount of beer consumed during the last school year by the sample as a whole (q.43) consisted of 1-3 beers. There was a significant sex difference here ($p < .01$), the beer consumption being greater for the males. The maximum amount of beer consumed during the last school year by the sample as a whole (q.44) fell within the range of 2-5 beers at a sitting. A significant sex difference ($p < .01$) revealed a higher maximum for the males.

Average wine consumption during the last school year (q.45) was 1-3 glasses for the total N. The females averaged considerably more wine consumption than the males ($p < .01$), and sophomores, juniors, and seniors each drank significantly more wine than freshmen during the last school year ($p < .01$). With respect to maximum wine consumption during the last school year (q.46), the sample as a whole averaged close to 2-3 glasses at a sitting. Again, there

TABLE 1
MEANS AND STANDARD DEVIATIONS FOR FREQUENCY OF
ALCOHOL INTAKE DURING THE LAST SCHOOL YEAR

Class	X	SD
Freshman	2.66	1.16
Sophomore	3.21	1.20
Junior	3.48	1.27
Senior	3.55	1.07
Total	3.22	1.23

Significance: * $p < .05$
 ** $p < .01$

TABLE 2
F-RATIOS FOR FREQUENCY OF ALCOHOL INTAKE
DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	12.92	9.37**
Sex	1	4.05	2.94
Class x Sex	3	2.86	2.07
Error	312	1.38	

Significance: *p < .05
 **p < .01

TABLE 3
MEANS AND STANDARD DEVIATIONS FOR QUANTITY OF
ALCOHOL INTAKE DURING THE LAST SCHOOL YEAR

Type of Drink		\bar{X}	SD
Beer	Average	2.57	1.30
	Maximum	3.30	1.98
Wine	Average	2.26	0.99
	Maximum	2.62	1.73
Liquor	Average	2.96	1.33
	Maximum	3.89	1.95

Significance: *p < .05
 **p < .01

TABLE 4
F-RATIOS FOR QUANTITY OF AVERAGE BEER INTAKE DURING
THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	2.01	1.35
Sex	1	62.13	41.70**
Class x Sex	3	3.80	2.55
Error	312	1.49	

Significance: *p < .05
 **p < .01

TABLE 5

F-RATIOS FOR QUANTITY OF MAXIMUM BEER INTAKE
AT ONE SITTING DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	3.67	1.11
Sex	1	193.75	58.43**
Class x Sex	3	5.82	1.76
Error	312	3.32	

Significance:

*p < .05

**p < .01

TABLE 6
F-RATIOS FOR QUANTITY OF AVERAGE WINE INTAKE
DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	5.55	5.91**
Sex	1	6.61	7.04**
Class x Sex	3	0.87	0.93
Error	312	0.94	

Significance: *p < .05
 **p < .01

TABLE 7
F-RATIOS FOR QUANTITY OF MAXIMUM WINE INTAKE
AT ONE SITTING DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	9.79	4.71**
Sex	1	3.40	1.64
Class x Sex	3	3.04	1.46
Error	312	2.08	

Significance: *p < .05
 **p < .01

TABLE 8
F-RATIOS FOR QUANTITY OF AVERAGE LIQUOR INTAKE
DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	6.19	4.68**
Sex	1	4.28	3.24
Class x Sex	3	0.55	0.42
Error	312	1.32	

Significance: *p < .05
 **p < .01

TABLE 9

F-RATIOS FOR QUANTITY OF MAXIMUM LIQUOR INTAKE
AT ONE SITTING DURING THE LAST SCHOOL YEAR

Source	df	MS	F
Class	3	18.66	5.17**
Sex	1	25.88	7.17**
Class x Sex	3	3.83	1.06
Error	312	3.61	

Significance: *p < .05
 **p < .01

was a significant difference between the freshmen on the one hand and the sophomores, juniors, and seniors on the other, these three classes averaging a greater maximum than the freshmen. ($p < .01$).

Significant class differences occurred for average and maximum liquor consumption also, the freshmen drinking smaller amounts than any of the other three classes ($p < .01$). Taking the sample as a whole, the average amount of liquor consumed during the last school year (q.47) was approximately 2-3 drinks and the maximum amount of liquor consumed at any one sitting (q.48) averaged 4-5 drinks. The latter finding yielded a discriminable sex difference, the men reporting a greater maximum than the women ($p < .01$).

Degree and frequency of inebriation. Tables 10-17 show the means, standard deviations, and F ratios for degrees and frequencies of inebriated states. In general, findings showed that the greater the degree of inebriety, the fewer number of endorsements it received; i.e., the number of Ss that got high the number of Ss that got tight the number of Ss that got drunk the number of Ss that passed out from drinking. This relationship also applied the frequency of occurrence of each of these states for an S; i.e., Ss got high more frequently than they got tight, etc. The latter finding occurred more disproportionately for females in comparison to males, the females getting high, tight, or drunk much less frequently than the males. It was also found that the more extreme the state of inebriety, the fewer number of endorsements it received with respect to liking the feeling of being in that state. Finally, it was found that mixed groups were the most frequent setting for all states of inebriety among female Ss and for less extreme degrees of inebriety among male Ss, while same-sexed groups were the most frequent setting for the more extreme

TABLE 10
MEANS AND STANDARD DEVIATIONS FOR REPORTED NUMBER
OF TIMES HIGH

Class	Sex	\bar{X}	SD
Freshman	Males	2.60	1.36
	Females	1.80	0.84
Sophomore	Males	2.92	1.52
	Females	2.28	1.12
Junior	Males	2.78	1.51
	Females	2.50	1.20
Senior	Males	3.18	1.48
	Females	2.86	1.15
Total		2.61	1.35
Significance: *p < .05 **p < .01			

TABLE 11
F-RATIOS FOR REPORTED NUMBER OF TIMES HIGH

Source	df	MS	F
Class	3	8.82	5.15**
Sex	1	21.01	12.26**
Class x Sex	3	1.29	0.75
Error	312	1.71	

Significance: *p < .05
 **p < .01

TABLE 12
MEANS AND STANDARD DEVIATIONS FOR REPORTED NUMBER
OF TIMES TIGHT

Class	Sex	\bar{X}	SD
Freshman	Males	1.85	1.01
	Females	1.35	0.53
Sophomore	Males	2.08	1.08
	Females	1.32	0.65
Junior	Males	1.92	1.15
	Females	1.62	0.73
Senior	Males	2.12	1.10
	Females	1.78	0.79
Total		1.76	0.95
Significance: *p < .05 **p < .01			

TABLE 13
F-RATIOS FOR REPORTED NUMBER OF TIMES TIGHT

Source	df	MS	F
Class	3	1.75	2.07
Sex	1	18.05	21.39**
Class x Sex	3	0.82	0.97
Error	312	0.84	

Significance: *p < .05
 **p < .01

TABLE 14
MEANS AND STANDARD DEVIATIONS FOR REPORTED NUMBER
OF TIMES DRUNK

Class	Sex	\bar{X}	SD
Freshman	Males	1.65	0.94
	Females	1.20	0.56
Sophomore	Males	1.80	1.08
	Females	1.12	0.40
Junior	Males	1.58	1.05
	Females	1.58	0.95
Senior	Males	1.95	1.14
	Females	1.48	1.00
Total		1.54	0.96

Significance: *p < .05
 **p < .01

TABLE 15
F-RATIOS FOR REPORTED NUMBER OF TIMES DRUNK

Source	df	MS	F
Class	3	1.34	1.54
Sex	1	12.80	14.70**
Class x Sex	3	1.62	1.87
Error	312	0.87	

Significance: *p < .05
 **p < .01

TABLE 16

MEANS AND STANDARD DEVIATIONS FOR REPORTED NUMBER
OF TIMES HAVING PASSED OUT FROM DRINKING

Class	Sex	\bar{X}	SD
Freshman	Males	1.22	0.72
	Females	1.12	0.40
Sophomore	Males	1.50	0.84
	Females	1.12	0.51
Junior	Males	1.32	0.76
	Females	1.28	0.67
Senior	Males	1.50	1.02
	Females	1.22	0.82
Total		1.29	0.75

Significance:

* $p < .05$
** $p < .01$

TABLE 17
F-RATIOS FOR REPORTED NUMBER OF TIMES HAVING
PASSED OUT FROM DRINKING

Source	df	MS	F
Class	3	0.51	0.90
Sex	1	3.20	5.69*
Class x Sex	3	0.46	0.82
Error	312	0.56	

Significance: *p < .05
 **p < .01

degrees of inebriety among the male Ss.

To the question, "How many times have you ever been high?" (q.49), Table 3 indicates that the entire sample's responses averaged 1-15 times. The seniors averaged significantly higher than the other three classes combined ($p < .01$), and males reported getting high more times than females ($p < .01$). Taking the sample as a whole, 64% endorsed liking the feeling of being high, 16% responded negatively to this feeling, and 20% claimed never having been high (q.58). During the Freshmen year, more males than females liked being high, but by the Junior and Senior years, slightly more females than males reported liking this feeling. With respect to how often Ss got high after starting to drink (q.61), the sample as a whole reported getting high close to one-fourth of the time. Analysis of variance showed a significant sex difference here, males getting high a greater proportion of the time than females ($p < .05$). Considering the circumstances under which Ss became high most often (q.53), 49% of the sample endorsed 'on the week-end, when with opposite-sexed friends', and 23% endorsed 'on the week-end, when with same-sexed friends'. Considerably more females than males endorsed the former, and considerably more males than females endorsed the latter. 'Never get high' was checked by 23% of the sample.

To the question "How many times have you ever been tight?" (q.50), Table 4 shows that the entire sample's response averaged between 'never' to 1-5 times. Analysis of variance indicated that males reported getting tight more times than females ($p < .01$). Taking the sample as a whole, 23% endorsed liking the feeling of being tight, 29% responded negatively, and 48% claimed never having been tight (q.59). With respect to how often Ss got tight after starting to drink

(q.62), the sample as a whole reported rarely getting tight. There was a significant sex difference here, males getting tight a greater proportion of the time ($p < .01$). Considering the circumstances under which Ss became tight most often (q.54) a frequency count indicated that 26% of the sample endorsed 'on the week-end, when with opposite-sexed friends', and 21% endorsed 'on the week-end, when with same-sexed friends'. More females than males endorsed the former, and considerably more males than females endorsed the latter. 'Never become tight' was checked by 50% of the sample.

To the question, "How many times have you ever been drunk?" (q.51), Table 5 indicates the entire sample's response averaged between 'never' to '1 time'. Analysis of variance showed that males reported having been drunk more times than females ($p < .01$). Taking the sample as a whole, 4% endorsed liking the feeling of being drunk, 35% responded negatively, and 61% claimed never having been drunk (q.60). More females than males reported never having been drunk, and more males than females claimed liking the feeling. With respect to how often Ss got drunk after starting to drink (q.63), the sample as a whole averaged between 'drink, but never get drunk' and 'rarely get drunk'. Analysis of variance indicated a significant sex difference here, males getting drunk a greater proportion of the time ($p < .01$). Considering the circumstances under which Ss became drunk most often (q.55), 17% of the sample endorsed 'on the week-end, when with opposite-sexed friends', and 16% endorsed 'on the week-end, when with same-sexed friends'. More males than females fell into the latter category. 'Never become drunk' was checked by 64% of the sample.

To the question, "How many times have you ever passed out after drinking some alcoholic beverage?" (q.52), Table 6 indicates that the entire sample's

response averaged between 'never' to '1 time'. Analysis of variance revealed that males reported having passed out more times than females ($p < .05$). Considering the circumstances under which Ss passed out from alcohol most often (q.56), 7% of the sample endorsed 'on the week-end, when with same-sexed friends', and 4% endorsed 'on the week-end, when with opposite-sexed friends'. More men than women fell into the former category. 'Never pass out from drinking' was checked by 87% of the sampled.

Parental sanctions. While 17% of the Ss claimed that either or both parents had ever forbidden them to drink at sometime (q.68), only 7% responded that either or both parents now forbade them to drink (q.69).

Drinking practices directly related to college life. Relating drinking and study habits, 17% of the sample endorsed having drunk some alcoholic beverage while studying (q.99), and 20% of the sample reported having taken some alcoholic beverage on the night before an exam (q.64). Drinking on the night before an exam occurred on an average of 'never' to 1-3 times for the group as a whole (q.65); analysis of variance revealed a significant difference between freshmen and the other three classes, freshmen drinking on the night before an exam much less frequently than the other classes ($p < .01$). With respect to drinking soon after an exam was over (q.66), the sample as a whole averaged approximately 1-3 times. There were significant sex and class differences here, the males drinking after an exam more often than the females ($p < .01$), and the sophomores, juniors, and seniors as a whole doing this more often than the freshmen ($p < .01$). Regarding the question "Would it make much difference to you if alcohol weren't such an integral part of college life?" (q.73), 15% of the sample answered 'yes', 44% answered 'no', and 41% answered

'I don't think that alcohol is such an integral part of college life'.

Other aspects of current drinking. The two main sources of money with which to buy alcoholic beverages (q.67) were checked as 'only drink when others buy' (40%) and 'job' (30%). The former was predominantly endorsed by the females and the latter was checked mainly by the males. The question "Out of your five closest friends, how many drink?" (q.70) yielded a sample mean of 3.84 friends ($SD=1.52$). There were significant differences between classes ($p < .01$), between sexes ($p < .01$), and a significant interaction ($p < .05$) here. Generally, the higher the class S was in, the more friends S had that drank. On the whole, males had more friends that drank than females, but this difference diminished by the Junior year -- and by the Senior year, the females' average number of friends that drank was slightly higher than the males'. Taking an alcoholic beverage before going to sleep was endorsed by 55% of the sample (q.98). Finally, of those Ss who lived on campus or had their own apartment, 59% reported having kept some alcoholic beverage in their room since they had been in college.

Social complications as a result of drinking. Table 18 indicates the frequencies of occurrence of the four social complications due to drinking previously discussed (Straus & Bacon, 1952). Interference with preparation for, or missing, classes or exams was endorsed by 7% of the sample (15 males, 6 females); loss of friends or damaged friendships as a result of drinking was reported by 2% of the sample (4 males, 3 females); injury or accident due to drinking was endorsed by 3% of the sample (9 males, 0 females); and loss of job, arrest, or confrontation by high school or college authorities because of drinking was reported by 3% of the sample (7 males, 1 female) (q.94-97). To

TABLE 18
FREQUENCIES OF SOCIAL COMPLICATIONS DUE TO DRINKING

Class	Sex	interference with schoolwork	loss or damage of friendships	injury or accident	trouble with authorities
Freshman	Males	3	1	0	1
	Females	2	1	0	0
Sophomore	Males	5	1	4	3
	Females	1	2	0	0
Junior	Males	3	1	3	1
	Females	2	0	0	1
Senior	Males	4	1	2	2
	Females	1	0	0	0
Total		21	7	9	8

TABLE 19

ORDER OF IMPORTANCE OF REASONS FOR DRINKING, MEANS AND STANDARD
DEVIATIONS, FOR THOSE SS WHO ENDORSED DRINKING

Reasons for Drinking	\bar{X}	SD
1. enjoyment of taste	2.24	0.87
2. to comply with custom	1.78	0.83
3. to relieve fatigue or tension	1.67	0.84
4. to get high	1.55	0.81
5. for a sense of well-being	1.44	0.72
6. in order not to be shy	1.34	0.72
7. to forget disappointments	1.29	0.67
8. to relieve illness or physical discomfort	1.23	0.66
9. to get along better on dates	1.20	0.63
10. to get along better with members of your own sex	1.18	0.57
11. other	1.12	0.65
12. in order not to feel lonely	1.11	0.53
13. to get tight	1.09	0.53
14. as an aid in meeting crises	1.07	0.51
15. to get drunk	1.04	0.47
16. to facilitate studying	0.98	0.39

Significance: *p < .05

**p < .01

TABLE 20

F-RATIOS FOR ORDER OF IMPORTANCE OF REASONS FOR
DRINKING FOR THOSE SS WHO ENDORSED DRINKING

Reasons for Drinking	F(Class)	F(Sex)	F(cxs)
1. enjoyment of taste	7.11**	0.07	0.07
2. to comply with custom	4.39**	2.96	1.38
3. to relieve fatigue or tension	4.16**	0.29	0.75
4. to get high	1.02	4.37*	1.82
5. for a sense of well-being	3.32*	5.58*	1.07
6. in order not to be shy	0.08	0.60	0.68
7. to forget disappointments	0.91	0.25	1.96
8. to relieve illness of physical discomfort	1.21	6.23*	1.25
9. to get along better on dates	2.20	0.20	0.88
10. to get along better with members of your own sex	2.48	22.72**	1.00
11. other	0.69	0.12	0.65
12. in order not to feel lonely	1.69	0.04	0.90
13. to get tight	0.93	6.06*	1.08
14. as an aid in meeting crises	1.32	0.97	0.49
15. to get drunk	1.25	0.91	2.92*
16. to facilitate studying	3.27*	0.00	0.80

Significance: *p < .05
 **p < .01

the question "Have you ever felt that you were, are, or might become, dependent upon or addicted to the use of alcoholic beverages?" (q.93), 3% of the sample answered 'yes', 89% answered 'no', and 8% responded 'maybe'. The entire sample denied ever having belonged to Alateen (q.92).

Reported reasons for drinking. Possible reasons for drinking and their assigned ratings for degree of importance are listed in Appendix II, q.71a-p. Tables 19-20 show these reasons in order of importance, their means, standard deviations, and F ratios -- for those Ss who endorsed drinking alcohol.

Of those Ss who claimed having tasted alcohol at one time or another, the reason given the greatest degree of importance was 'because of enjoyment of taste'. The reason second in degree of importance was 'to comply with custom' and the reason third in degree of importance was 'to relieve fatigue or tension'. Besides being considered the most important, the above three reasons were the only ones which yielded significant class differences such that the sophomores, juniors, and seniors weighted each of these reasons as much more important than did the freshmen ($p < .05$). Reasons for drinking in order of next importance were: 4) to get high; 5) for a sense of well-being; 6) in order not to be shy; 7) to forget disappointments; 8) to relieve illness or physical discomfort; 9) to get along better on dates; 10) to get along better with members of your own sex; 11) other; 12) in order not to feel lonely; 13) to get tight; 14) as an aid in meeting crises; 15) to get drunk; and, 16) to facilitate studying. The reasons 'to get high', 'to get along better with members of your own sex', 'for a sense of well-being', and 'to get tight' were rated as significantly more important by the males than by the females ($p < .05$). The reason 'to relieve illness or physical discomfort' was rated more important by the females ($p < .05$).

Significant class differences were noted for the reasons, 'for a sense of well-being' and 'to facilitate studying' ($p < .05$). In both cases, these reasons took on increasing importance with an increment in class. There was a significant interaction with respect to the importance given to the reason, 'to get drunk' ($p < .05$). The interaction was attributable to the fact that female freshmen reported drinking for this reason considerably less than male freshmen but in the Sophomore year, not only did the rate of drinking to get drunk increase for females, but actually to a point where their performance was greater than the males'.

Reported reasons for not drinking. Possible reasons for not drinking and their assigned ratings for degree of importance are listed in Appendix II, q.72a-m. Tables 21-22 shows these reasons in order of importance, their means, standard deviations, and F ratios -- for those Ss who endorsed not drinking alcohol.

Of those Ss who claimed they did not drink (27%), the reason given the greatest degree of importance was 'don't like the taste of it'. Second in importance was 'other'. Other reasons given, in their order of importance, were: 3) 'can't afford it', and 'friends never use it'; 4) 'parents or friends disapprove', 'bad experience of someone else', and 'interferes with participation in sports'; 5) 'makes me sick', 'detrimental to my general health', and 'contrary to my religious training'; and, 6) 'I think it's immoral', 'I pledged not to drink', and 'I have lost control of drinking in the past'. The most outstanding finding here was a significant class difference for twelve of the thirteen reasons ('contrary to my religious training' did not yield significance) -- such that those reasons for not drinking declined considerably

TABLE 21

ORDER OF IMPORTANCE OF REASONS FOR NOT DRINKING, MEANS AND STANDARD
DEVIATIONS FOR THOSE SS WHO ENDORSED NOT DRINKING

Reasons for not Drinking	\bar{X}	SD
1. don't like the taste	0.15	0.53
2. other	0.12	0.49
3. can't afford it	0.11	0.41
3. friends never use it	0.11	0.45
4. parents or friends disapprove	0.10	0.37
4. bad experience of someone else	0.10	0.41
4. interferes with participation in sports	0.10	0.40
5. makes me sick	0.09	0.36
5. detrimental to general health	0.09	0.44
5. contrary to my religious training	0.09	0.38
6. I think it's immoral	0.08	0.28
6. I pledged not to drink	0.08	0.32
6. I have lost control of drinking in the past	0.08	0.37

Significance: *p < .05
 **p < .01

TABLE 22

F-RATIOS FOR ORDER OF IMPORTANCE OF REASONS FOR NOT
DRINKING FOR THOSE SS WHO ENDORSED NOT DRINKING

Reasons for not Drinking	F(class)	F(sex)	F(cxs)
1. don't like the taste	4.32**	0.10	0.81
2. other	3.63*	0.12	1.09
3. can't afford it	3.59**	1.21	0.05
3. friends never use it	4.39**	0.26	0.55
4. parents or friends disapprove	3.21*	0.58	0.58
4. bad experience of some- one else	3.24*	1.53	0.32
4. interferes with participation in sports	3.49*	2.38	0.18
5. makes me sick	5.02**	0.22	1.41
5. detrimental to general health	4.53**	1.06	0.04
5. contrary to my religious training	2.16	0.36	0.53
6. I think it's immoral	3.70**	0.04	0.26
6. I pledged not to drink	3.23*	0.03	0.20
6. I have lost control of drink- ing in the past	4.09**	0.78	0.11

Significance: *p < .05
 **p < .01

in importance after the Freshman year ($p < .05$).

Relationships between personality variables and questionnaire variables

The following section of results deals with inter-relationships of questionnaire variables, as well as those relationships of personality variables as measured by the EPPS with questionnaire variables thought relevant to this study. Such non-relevant material as EPPS intercorrelations are not reported. All those significant correlation coefficients reported are significant at the .01 level of confidence (for $df=300$, $r=+.148$; for $df=150$, $r=+.208$).

There were few significant relationships between the demographic variables and the personality factors for the sample as a whole. The most striking finding for the entire group was the significant negative relationships of church attendance with need for autonomy (n Aut) and need for heterosexuality (n Het), and the significant positive relationships of church attendance with need for abasement (n Aba) and need for nurturance (n Nur). The correlation coefficients found were, respectively, $-.164$, $-.157$, $.191$, and $.237$. When these relationships were analyzed separately for males and females, the only relationship that remained significant was between church attendance and n Nur for the males ($r=.282$).

Table 23 reports correlations between demographic dimensions and drinking practices for the sample. A number of significant trends were noted. Analyses of the group taken as a whole, as well as males and females separately, indicated that church attendance was negatively related to average and maximum amounts of alcohol consumption, frequency of drinking, frequency of inebriation, degree of inebriation, and number of friends who drink. For the group as a whole, there was a significant positive relationship between cigarette smoking

TABLE 23
CORRELATIONS BETWEEN DEMOGRAPHIC VARIABLES AND DRINKING
VARIABLES FOR THE SAMPLE

Drinking Variables	Demographic Variables		
	Church Attendance	Dating Frequency	# Cigarettes
42. frequency	-.27*	.26**	.34**
43. ave. amt. beer	-.25**	.18**	.36**
44. max. amt. beer	-.22**	.20**	.42**
45. ave. amt. wine	-.12	.18**	.25**
46. max. amt. wine	-.15**	.22**	.33**
47. ave. amt. liquor	-.32**	.21**	.34**
48. max. amt. liquor	-.37**	.24**	.38**
49. # times high	-.35**	.22**	.41**
50. # times tight	-.23**	.17**	.35**
51. # times drunk	-.19**	.18**	.29**
52. # times passed out	-.15**	.10	.20**
61. proportion of times high	-.27**	.18**	.36**
62. proportion of times tight	-.19**	.11	.34**
63. proportion of times drunk	-.20**	.15	.20**
65. # times drank on night before exam	-.06	.10	.28**
66. # times drank after exam	-.28**	.18**	.40**
70. # friends who drink	-.17**	.19**	.30**

Significance: *p < .05
**p < .01

and these drinking variables, the relationship appearing generally stronger for females. There was also a significant positive relationship between Ss' frequency of drinking and the frequency with which they reported seeing their mothers and fathers drink. The significance of this relationship did not hold up between the drinking frequencies of female Ss and their mothers, however.

Separate analyses for the sexes differentiated other relationships between demographic variables and drinking practices. Significantly positive relationships between drinking practices and family's gross income, and between drinking practices and dating patterns, were found for the females but not for the males. Generally for the female S, the higher her family's gross income and the more frequently she dated, the higher were the degrees and frequencies of her drinking and getting inebriated.

Table 24 shows some of the correlations between various drinking practices and the degree of importance attributed to various reasons for drinking. A number of significant relationships for the group as a whole were revealed. The degrees of importance given for most reasons for drinking had significantly positive correlations with frequency of drinking; average beer, wine, and liquor consumption; maximum beer, wine, and liquor consumption, frequencies of getting high, tight, drunk, and of passing out; frequency of drinking before an exam, frequency of drinking after an exam; and number of friends who drink. A breakdown by sexes yielded two sex discriminating variables: average wine consumption and maximum wine consumption. Both of these maintained positive significance for the females, but were not significantly related to importance of reasons for drinking for the males.

Table 25 shows some intercorrelations of drinking practices. A

TABLE 24
CORRELATIONS BETWEEN REASONS FOR DRINKING
AND DRINKING VARIABLES
FOR THE SAMPLE

Reasons for Drinking (q.71 a-p)	Drinking Variables			
	frequency of drinking	proportion of times get drunk	# of times drink on night before exam	# of friends who drink
a. enjoyment of taste	.48**	.31**	.34**	.36**
b. custom	.22**	.24**	.13	.16**
c. relief of ten- sion	.53**	.45**	.37**	.37**
d. to get high	.46**	.54**	.30**	.38**
e. to get along bet- ter on dates	.38**	.39**	.17**	.33**
f. to get along bet- ter with members of own sex	.36**	.36**	.20**	.34**
g. to forget dis- appointments	.38**	.36**	.29**	.33**
h. not to be shy	.31**	.36**	.22**	.30**
i. to relieve illness	.31**	.30**	.14	.20**
j. for a sense of well-being	.44**	.46**	.24**	.32**
k. to get tight	.37**	.52**	.27**	.32**
l. as an aid in meet- ing crises	.34**	.43**	.26**	.27**
m. to get drunk	.30**	.52**	.21**	.21**
n. not to feel lonely	.31**	.42**	.24**	.27**
o. to facilitate studying	.47**	.26**	.47**	.29**
p. other	.25**	.24**	.17**	.26**

Significance: *p < .05
**p < .01

comparison of drinking amounts, drinking frequencies, degrees of inebriation, frequencies of inebriated states, frequency of drinking before an exam, frequency of drinking after an exam, number of friends who drink, etc., with each other by pairing these variables in every possible way consistently revealed significant positive correlations for the group as a whole, as well as for the two sexes examined separately. This, for example, the more drinking friends an S had, the more frequently S himself drank, got high, got drunk, drank before an exam, etc.

Examination of the strengths of relationships between EPPS personality variables and drinking patterns revealed a number of significant trends for the sample as a whole. Some of these are reported in Table 26. Generally, the greater an S's average and maximum alcohol intake and frequency and degree of inebriation, the higher his need for aggression (n Agg) and n Het, and the lower his n Nur. Separate analyses for males and females reduced the strengths of these relationships to nonsignificance for males. The relationship between these drinking patterns and n Het retained significance for the females, and in addition, other significant findings emerged for this sex. In general, the greater a female's alcohol intake and frequency of inebriation, the higher her need for autonomy (n Aut), as well as n Het, and the lower her need for deference (n Def) and need for endurance (n End), as measured by the EPPS.

Looking only at those Ss that endorsed drinking some alcoholic beverage, examination of the strengths of relationships between EPPS personality variables and degree of importance attributed to various reasons for drinking revealed a consistently significant positive relationship between n Het and the degree of importance given to these reasons. Table 27 indicates the correlation

TABLE 25
CORRELATIONS BETWEEN DRINKING VARIABLES FOR THE SAMPLE

Drinking Variables	Drinking Variables					
	# times tight (q50)	# times drunk (q51)	# times passed out (q52)	# times drink before exam (q65)	# times drink after exam (q66)	# friends who drink (q70)
q. 42. frequency	.49**	.41**	.32**	.45**	.57**	.49**
q. 43. ave. amt. beer	.56**	.41**	.33**	.36**	.54**	.38**
q. 44. max. amt. beer	.60**	.49**	.37**	.40**	.58**	.41**
q. 45. ave. amt. wine	.24**	.20**	.08**	.23**	.26**	.19**
q. 46. max. amt. wine	.36**	.32**	.17**	.36**	.36**	.27**
q. 47. ave. amt. liquor	.57**	.41**	.27**	.32**	.55**	.36**
q. 48. max. amt. liquor	.59**	.48**	.34**	.33**	.56**	.44**
q. 49. # times high	.81**	.63**	.44**	.31**	.66**	.42**

Significance: *p < .05
 **p < .01

TABLE 26

CORRELATIONS BETWEEN EPPS VARIABLES \bar{N} NUR, \bar{N} HET, AND \bar{N} AGG
WITH DRINKING VARIABLES FOR THE SAMPLE

EPPS Variables			
Drinking Variables	\bar{n} Nur	\bar{n} Het	\bar{n} Agg
q. 42. ave. amt. beer	-.09	.16**	.17**
q. 43. max. amt. beer	-.16**	.22**	.22**
q. 47. ave. amt. liquor	-.13	.16**	.16**
q. 48. max. amt. liquor	-.20**	.20**	.18**
q. 49. # times high	-.16**	.17**	.22**
q. 50. # times tight	-.16**	.15**	.21**
q. 51. # times drunk	-.16**	.08	.20**
q. 52. # times passed out	-.07	.00	.15**
q. 61. proportion of times high	-.12	.27**	.18**
q. 62. proportion of times tight	-.12	.20**	.18**
q. 66. # times drank after exam	-.07	.16**	.15**
q. 70. # friends who drink	-.06	.23**	.18**

Significance: *p < .05
 **p < .01

coefficients for these relationships. A breakdown by sexes reduced this relationship to nonsignificance for the males, but generally was supported for the females. Again, when relationships for females were inspected separately, additional significant trends emerged: the more importance a female attributed to various reasons for her drinking, the higher her n Aut (and n Het), and the lower her n End.

Looking only at those Ss that denied drinking some alcoholic beverage, a number of significant trends emerged with respect to relationships between EPPS personality variables and importance attributed to reasons for not drinking. Some of these relationships are presented in Table 28. For the non-drinking group as a whole, the more importance attributed to reasons for not drinking, the higher the need for order (n Ord) and n Aba, and the lower the n Het. When this group was broken down by sexes, the relationships for n Ord and n Het held up for the males, but not for the females, while the relationship for n Aba generally held up for the females but not for the males.

TABLE 27

CORRELATIONS BETWEEN N HET AND REASONS FOR DRINKING
FOR SS WHO ENDORSED DRINKING

Reasons for Drinking (q. 71a-p)	<u>n</u> Het
a. enjoyment of taste	.15**
b. custom	.14
c. relief of tension	.16**
d. to get high	.23**
e. to get along better on dates	.19**
f. to get along better with members of own sex	.18**
g. to forget disappointments	.18**
h. not to be shy	.22**
i. to relieve illness	.16**
j. for a sense of well-being	.15**
k. to get tight	.17**
l. as an aid in meeting crises	.18**
m. to get drunk	.20**
n. not to feel lonely	.19**
o. to facilitate studying	.12
p. other	.12

Significance: *p < .05
**p < .01

TABLE 28

CORRELATIONS BETWEEN EPPS VARIABLES N ORD, N ABA, AND N HET
 WITH REASONS FOR NOT DRINKING
 FOR SS WHO ENDORSED NOT DRINKING

Reasons for not Drinking (q. 72a-m)	EPPS Variables		
	<u>n</u> Ord	<u>n</u> Aba	<u>n</u> Het
a. don't like the taste	.16**	.16**	-.19**
b. makes me sick	.16**	.20**	-.20**
c. detrimental to health	.15**	.21**	-.23**
d. contrary to religious training	.15**	.18**	-.25**
e. consider it immoral	.14	.20**	-.22**
f. pledged not to drink	.13	.19**	-.22**
g. parents or friends disapprove	.19**	.17**	-.23**
h. bad experience of some- one else	.14	.15	-.20**
i. can't afford it	.16**	.18**	-.22**
j. interferes with parti- cipation in sports	.14	.17**	-.20**
k. friends never use it	.15**	.20**	-.20**
l. have lost control of drinking in past	.15**	.15**	-.19**
m. other	.12	.19**	-.16**

Significance: *p < .05
 **p < .01

CHAPTER IV

DISCUSSION

The literature surveyed indicates that: 1) usage of alcohol is prevalent throughout college campuses in the United States; 2) there is a low incidence of 'problem' drinking among college students; 3) drinking patterns of college students are influenced by a host of demographic variables -- including sex, religion, parental drinking habits, income, etc. -- as well as by factors specific to the college campus, such as college class, drinking habits of friends, drinking regulations instituted by the school, etc. With respect to this conclusion, the general consensus is that current situational factors are most influential in determining drinking behavior patterns of college students; 4) College students drink primarily for social approval, for relief from the tensions promoted by college life, and to facilitate expression of impulses.

The findings from the present investigation generally confirm the above statements. Regarding the first conclusion, these results indicate that 74% of the sampled students tasted an alcoholic beverage before the age of 11 and 97% tasted alcohol sometime during college; Straus & Bacon (1953) found that 92% of the males attending private colleges had used alcoholic beverages. In this study, there was no significant difference in the frequency of drinking between male and female Ss. This supports Straus & Bacon's (1953) observation that in the colleges where they found drinking most prevalent, the

incidence of drinking among women came closest to approximating that for men. The extensive drinking by both sexes in the present investigation could be attributed partly to the fact that these Ss attend a private, sectarian school where drinking is not negatively sanctioned. This, together with Straus & Bacon's (1953) observation, would explain why the male and female Ss drank at similar frequencies. Indeed, in those studies where a variety of types of colleges were sampled (private, public, nonsectarian, etc.), the incidence of drinking averaged lower, and male/female drinking frequencies were more discrepant. The present investigation supported previous studies also in the finding that frequency of drinking by students was not excessive. In this and other studies, average drinking frequency was approximately once a month. Degrees and frequencies of inebriation reported in this study were also in agreement with past research, none of these states occurring in excess -- on the average.

With respect to the incidence of problem drinking among college students, the present investigation confirms previous findings in its assessment of very few endorsements to social complications due to drinking. Straus & Bacon's (1953) conclusion for these results could apply here: drinking is a custom; the individual's drinking behavior largely reflects the behavior problems of his own social group. In addition, the fact that the university investigated in the present investigation does not negatively sanction drinking lends support to the hypothesis that deprivation increases drive; i.e., students at 'dry' schools have been involved in drinking-related problems more often than students of colleges with a more liberal attitude toward drinking. One finding shown by

past research is that the earlier a child is exposed to the taste of alcohol, the less likely will be the occurrence of a drinking problem -- again, the underlying rationale being that deprivation increases drive. "Early" ages of alcohol exposure reported were 2-3 years (Lolli et al., 1958; and Snyder, 1958) among Jewish and Italian-American families, while highest rates of alcohol addiction have been found among children who were denied alcohol until the age of 21 (Bales, 1962; and Glad, 1947). In the present study, the mean age at which Ss first tasted alcohol was 9.41 years, and evidence of serious drinking-related problems was not found.

That drinking patterns are related to a host of demographic variables was indicated by the many low but significant correlations between demographic and drinking variables. The significance of the correlation coefficients showed the probable presence of the relationships, and the small size of these figures indicated that each one of the demographic variables was accounting for only a small percent of the total variance. This phenomenon supports a multi-dimensional approach to the subject, wherein an individual's drinking pattern is considered a function of many inter-related factors and cannot be traced to only a few, discrete, sources.

Straus & Bacon (1953) noted that a student is more likely to drink if his family income is high, and more likely to abstain if his family income is low. In the present investigation, the only such relationship found significant was between family income and female Ss' drinking patterns -- namely, the higher their family's gross income, the higher their degree and frequency of drinking. One possible explanation for this is that male college students more frequently have jobs which provide them with extra income, and they can therefore afford

to buy alcohol regardless of extent of financial dependence upon parents. Female students, on the other hand, might be able to buy alcohol only if they can obtain money from their parents.

Regarding parental drinking behavior, Straus & Bacon (1953) stated that "the influence of parental drinking practices upon those of sons and daughters cannot be stressed too strongly." The findings in the present investigation are in agreement with this statement -- correlations between Ss' frequency of drinking and reported frequencies of parental drinking being significantly positive. However, it must be stressed again that the size of the correlations indicate that parental drinking factors account for only a small percent of the variance of Ss' drinking practices; parental influence can be considered as only one factor among many in determining the components of an individual's drinking behavior.

With respect to the religious variable, many studies have shown that the proportion of abstainers is much less among Catholics than among other religious groups (Knupfer, 1961; Maxwell, 1952; McCarthy, 1956; and Straus & Bacon, 1953). The religious variable was controlled for in the present study by including only Catholic Ss. Total abstention was reported by only 3% of the sample in this study. In light of this, it is interesting to note that church attendance was negatively related to amount and frequency of drinking, frequency and degree of inebriation, and number of friends who drink. This appears rather puzzling since religious reasons for not drinking were given minimal importance in comparison to other reasons for abstaining, and since one might not expect church attendance to influence the drinking patterns of members of a religion which does not negatively sanction drinking. The only explanation this

investigator can offer is that church attendance might reflect a trait or characteristic other than religiosity -- such as a need for structure, order, compulsiveness, etc. Indeed, this investigator did find that the EPPS personality variable of n Ord was negatively related with degrees and frequencies of drinking habits, and positively related to church attendance.

Regarding sex differences in drinking patterns among college students, studies have generally indicated that drinking is more frequent among males than among females. The present investigation found no significant sex differences regarding frequency of drinking, although it did confirm past research with respect to males' greater average intake, greater frequency and extent of inebriation, and higher incidence of social complications related to drinking. As mentioned above, the lack of sex differences in drinking frequency might be related to the liberal attitude toward drinking by the university, as well as to religious sanctions concerning alcohol. A greater similarity between the sexes here should not be surprising in light of the previous findings that in those colleges where drinking was most prevalent, the incidence of drinking among women came closest to approximating that for men. This indirectly supports the broader interpretation that where drinking sanctions are strongest, their effectiveness is much greater for women than for men. Applying this interpretation to sex differences that were found in the present study, one would expect that those drinking practices most negatively sanctioned for women by society would be observed less among women than among men. This expectation was found in this study. It follows that females who exhibit drinking patterns in excess of society's norms are, in a certain sense, 'deviants' of society in a way that males are not, since society does not label

similar behavior on their part as inappropriate. One might suspect a particular personality pattern for these 'deviant' drinking females -- this is discussed more fully later.

With respect to college class differences, the present investigation is in accord with previous findings in that the incidence of drinking increases with each college year. In addition, a widespread finding in this study was that freshmen differ significantly from sophomores, juniors, and seniors on a number of drinking variables. Generally, it seems that drinking practices in college by and large are specific to the institution, taking on increasing importance and relevance to college life as one becomes embedded within the university structure. This interpretation would fit with Straus & Bacon's (1953) hypothesis that drinking patterns -- while related to earlier environment -- typically reflect one's current situation to an increasing degree.

Regarding number of close friends who drink, the present investigation revealed a strong positive relationship between amount and frequency of drinking and the number of drinking friends one had. This supports Straus & Bacon's (1953) finding concerning drinking practices among friends.

Regarding drinking setting, Straus & Bacon (1953) found that most drinking by college women occurs in mixed groups, while men -- in addition to drinking in mixed social groups -- drink even more frequently in all-male fellowships. The same results occurred in the present investigation. It was also found here that more extreme degrees of inebriation in males occur more often in all-male fellowships, and more extreme degrees of inebriation in females occur more often in mixed groups. This ties in with the general notion that drinking among college students is a social phenomenon, and with the interpretation that

females are taught to pursue mixed groups in order to feel 'social', while males have been taught to feel quite comfortable in all-male groups where they are permitted to behave with less inhibitions.

With respect to why college students drink, the present investigation incorporated personality test results -- as well as directly asking Ss to rate importance of reasons for drinking -- in an attempt to narrow the gap in this multi-dimensional area. Results of this study concerning reported importance of reasons for drinking yielded findings almost identical to those of Straus & Bacon (1953); both studies found 'enjoyment of taste', 'to comply with custom', 'to relieve fatigue or tension', and 'to get high' as the most important reasons for drinking. The next most important reason for drinking found in the present investigation was 'for a sense of well being', while in Straus & Bacon's (1953) study it was 'to get along better on dates'. Straus & Bacon (1953) felt that the first four reasons, together with 'to get along better on dates', have primarily a social connotation and are of greater importance than those suggesting primarily a psychological motivation. The present investigation certainly found social factors to be important. One such indication is the observation that the reasons for not drinking decreased markedly in importance after the Freshman year -- suggesting that college environment strongly influences one's reasons for drinking. Another indication is the observation that those EPPS personality characteristics found significantly related to drinking are primarily of a social nature; n Agg and n Het were found to be positively related to drinking practices (frequency, amount, etc.), while n Nur was negatively related to drinking variables. These three needs reflect modes of dealing with people, n Agg generally referring to angry,

hostile reactions toward others, n Het referring to the need of partaking in various activities -- sexual or otherwise -- with members of the opposite sex, and n Nur referring to a need for doing things for others. Kalin, McClelland, & Kahn (1965) found higher levels of physical aggression and sexual thoughts among college males who drank heavily, and Astin (1968) observed that students in colleges where the rate of drinking is relatively high are more argumentative, independent, and competitive. One conclusion that might be drawn from all of these results is that college students who claim the need to express their feelings and impulses outwardly endorse higher levels of drinking practices. This interpretation receives further support from the findings of the present investigation that those college students who indicated greater needs for control and self-abasement (n Ord and n Aba, respectively) also reported lower degrees of drinking (frequency, amount, etc.). Also, such traits seem more characteristic of how a person related to himself rather than to others. Separate analyses for the sexes generally pointed to the same type of picture, although it was more clear-cut in the females. Many of the relationships between personality variables with drinking habits and reported reasons for drinking lost significance for the males. In general, the two relationships that did hold up for the males were the negative relationships between n Ord and n Het with reasons for not drinking. The pattern which emerged for the females showed that the more a female S drank, the higher were her needs for autonomy and heterosexuality, and the lower were her needs for deference and endurance. One general conclusion that might be drawn from the above is that since drinking is not a particularly unusual practice for males, no clear-cut picture of the average drinking man's personality as it incorporates a variety

of personalities. Society has not considered drinking to be as common a practice for females, however, so one would expect some type of commonality in the personalities of females who drink -- in the form of independence, self-assertion, autonomy, lack of deference, etc. -- this personality pattern becoming more extreme with more extreme degrees of drinking.

In sum, even though this study used a relatively large sample from a homogeneous group, the results of the present investigation seem to correspond to previous investigations with respect to: 1) incidence of alcohol consumption on college campuses in the United States; 2) incidence of problem drinking among college students; 3) drinking norms and their relationship to demographic variables; and 4) reasons for drinking in college. Additional hypotheses were offered regarding reasons for drinking. Most of the significant correlations found in this study were low, each accounting for very little of the variance. These results would support the theory that an individual's drinking pattern is multi-determined, and must be attributed to a number of inter-related factors.

CHAPTER V

SUMMARY

A survey of the literature was made on drinking patterns of college students, with specific attention being paid to personality characteristics associated with various drinking patterns. The Edwards Personal Preference Schedule (EPPS) and a drinking questionnaire were administered to 60 Caucasian, Catholic, undergraduate students (40 male and 40 female) at each year level (Freshman, Sophomore, Junior, and Senior) enrolled in psychology classes at Loyola University.

Results showed: 1) very high incidence of drinking; 2) very low incidence of problems related to drinking; 3) relationships between drinking practices and past environmental variables; 4) relationships between drinking practices and college environment; and, 5) certain personality characteristics -- especially for females -- associated with drinking patterns. A multi-dimensional approach was taken to account for some of these findings.

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APPENDIX I

NATIONALITY OF SS BASED ON BOTH PARENTS

Nationality	Frequency	% of Total N
Polish/Polish	48	15%
Irish/Irish	46	14%
Irish/German	46	14%
Italian/Italian	18	6%
German/German	16	5%
German/French	16	5%
French/Irish/German	16	5%
Irish/English	15	5%
Irish/Italian	12	4%
Polish/German	11	3%
Russian/Russian	9	3%
Polish/Russian	8	3%
Irish/Polish	7	2%
German/Italian	7	2%
German/English	6	2%
Lithuanian/Lithuanian	6	2%
Spanish/Spanish	4	1%
Other	29	9%
Total	320	100%

APPENDIX II
QUESTIONNAIRE

PLEASE -- ANSWER EVERY ITEM!!!

1. What is your age (as of last birthday)? (See age) $\bar{X} = 19.73$ $Sd = 1.83$
2. What is your race (check one)? Caucasian X; Negroid ; Mongolian .
3. What is your sex (check one)? Male Female
4. What is your religion? Catholic
5. What is your nationality? (e.g. Mother is Scotch & Irish, Father is French & German) See Appendix I
6. What country were you born in? (deleted)
7. Marital status (check one): married ; single ; separated ; divorced ; widowed .
8. Permanent residence (check one):

city (500,000 or more) (3)
suburb of a city (2) $\bar{X} = 2.39$ $SD = 0.73$
town (500,000 or less) (1)

9. What type of dwelling do you permanently reside in (check one)?

owned house 75%
rented house 3%
owned apartment (co-op, condominium, etc.) 3%
rented apartment 15%
other (please specify) 4%

10. When not attending school, with whom do you permanently live (check one)?

both parents 77%
mother only 10%
father only 2%
spouse 3%
other (please specify) 8%

11. While attending school, where are you living (check one)?

fraternity or sorority house 2%
dormitory 35%
permanent residence (e.g. with parents, spouse) 44%
apartment rented for duration of school term 13%
other (please specify) 6%

12. How old is your father? (If father is no longer living, how long has he been deceased?) $\bar{X} = 51.12$ $SD = 6.64$ $F(\text{classes}) = 9.47^{**}$

13. How old is your mother? (If mother is no longer living, how long has she been deceased?) $\bar{X} = 48.52$ $SD = 6.50$ $F(\text{classes}) = 12.08^{**}$

Significance: * .05
 ** .01

14. Indicate the occupational category of your father and of your mother by checking the appropriate category for 'Father' and for 'Mother'. (If your mother is a housewife, homemaker, etc., check: (11) Keeping house)

	<u>Father</u>	<u>Mother</u> (deleted)
(1) Professional, technical, and related work (e.g. physician, lawyer, teacher, engineer, accountant).	<u>(12)</u>	<u> </u>
(2) Farm owners, farm managers.	<u>(11)</u>	<u> </u>
(3) Managers, officials, and proprietors, except farm (e.g. owner or manager of supermarket, furniture store, hotel, department store, etc.)	<u>(10)</u>	<u> </u>
(4) Clerical, sales, and related work (e.g. book- keeper, salesman or saleswoman in department store, insurance salesman).	<u>(9)</u>	<u> </u>
(5) Craftsmen, foremen, and related work (e.g. lithographer, furniture upholsterer, machinist, foreman in factory).	<u>(8)</u>	<u> </u>
(6) Operatives and related work (e.g. machine opera- tor, truck driver).	<u>(7)</u>	<u> </u>
(7) Private household workers (e.g. maid, butler, chauffeur, gardener, etc.)	<u>(6)</u>	<u> </u>
(8) Service workers except private household (e.g. building maintenance, nurse's aide, elevator operator, waitress, cook in restaurant, etc.)	<u>(5)</u>	<u> </u>
(9) Farm laborers	<u>(4)</u>	<u> </u>
(10) Laborers	<u>(3)</u>	<u> </u>
(11) Keeping house	<u>(2)</u>	<u> </u>
(12) Students	<u>(1)</u>	<u> </u>
(13) Others (those who are permanently unable to work, retired people, voluntarily idle, and people who work less than 15 hours a week).	<u>(X of item)</u>	<u> </u>

$\bar{X} = 9.39$

SD = 4.08

115

15. Does your father work steady? Yes 95% No 3% Doesn't work 2%

16. Does your mother work steady? Yes No Doesn't work (deleted)

17. What is your family's gross annual income (check one)?

under \$5,000	<u>(1)</u>	$\bar{X} = 2.78$
\$5,000 - \$10,000	<u>(2)</u>	
\$10,000 - \$15,000	<u>(3)</u>	
\$15,000 or over	<u>(4)</u>	SD = 0.89

18. Within the last year, how often have you attended church (synagogue, etc.) on the average? (check one)

once a week	<u>(3)</u>	
more than once a week	<u>(4)</u>	$\bar{X} = 2.78$
less than once a week	<u>(2)</u>	
never	<u>(1)</u>	$SD = 0.83$

19. How often do you date, on the average? (check one)

once a week	<u>(5)</u>	
more than once a week	<u>(6)</u>	$\bar{X} = 4.22$
twice a month	<u>(4)</u>	
once a month	<u>(3)</u>	$SD = 1.76$
less than once a month	<u>(2)</u>	
never	<u>(1)</u>	$F(\text{class}) = 5.06^{**}$

20. Are you presently going steady with someone? (check one)

Yes	<u>33%</u>
No	<u>57%</u>
Don't date	<u>10%</u>

21. Is the person with whom you are going steady residing in another city or state, so that you are unable to go out with him/her too often? (check one)
(deleted)

Yes	<u> </u>
No	<u> </u>
Don't go steady	<u> </u>

22. Do you ever smoke?

Yes	<u>48%</u>
No	<u>52%</u>

23. What do you smoke? (check as many as apply to you)

cigarettes	<u>31%</u>	cigarettes & cigars	<u>3%</u>
cigars	<u>1%</u>	cigarettes & pipes	<u>4%</u>
pipos	<u>3%</u>	cigars & pipes	<u>1%</u>
don't smoke	<u>51%</u>	all 3	<u>6%</u>

24. Indicate how many cigarettes, cigars, and/or pipe tobacco refills you use a day:

rating: <u>(1-4)</u>	cigarettes	$\bar{X} = 0.63$; $SD = 0.89$; $F(\text{class}) = 3.24^*$
<u> </u>	cigars	$\bar{X} = 0.09$; $SD = 0.40$; $F(\text{sex}) = 15.38^{**}$
<u> </u>	pipe tobacco refills	$\bar{X} = 0.25$; $SD = 0.95$; $F(\text{sex}) = 22.48^{**}$

25. What type of high school did you attend? (check one)

public	<u>14%</u>
parochial/all boys	<u>40%</u>
parochial/all girls	<u>35%</u>
parochial/co-educational	<u>11%</u>

26. What was your total grade average in high school? (check one)

A	<u>(7)</u>	0	<u>(3)</u>	$\bar{X} = 5.34$
A- or B+	<u>(6)</u>	C- or D+	<u>(2)</u>	$SD = 1.10$
B	<u>(5)</u>	D or less	<u>(1)</u>	$F(\text{sex}) = 27.43^{**}$
B- or C+	<u>(4)</u>			

27. Is the average grade as reported above a fair indication of your ability?
(check one)

- (1) It grossly under-represents my ability
(2) It slightly under-represents my ability $\bar{X} = 2.70$
(3) It is a fair representation of my ability $SD = 0.80$
(4) It slightly over-represents my ability $F(\text{sex}) = 23.00^{**}$
(5) It grossly over-represents my ability

28. What is your major in college? (It does not have to reflect your final decision) (check one)

(deleted)

So far, my intended major is _____
As yet, I have no idea _____

29. At this point, what do you plan as your future occupation? (check one)

At this point, my intended occupation is _____ (deleted) _____
I am as yet rather undecided _____

30. Approximately how old were you when you first tasted some alcoholic beverage? (fill in one)

I was approximately _____ years old. $\bar{X} = 9.41$
 $SD = 4.19$

_____ I have never tasted any alcoholic beverage.

31. Did you ever taste an alcoholic beverage before the age of 11? (check one)

Yes 74%
No 26%

32. If you never tasted an alcoholic beverage before the age of 11, was it because (check one ---omit if did taste alcoholic beverage before 11):

_____ Your parents didn't allow it. (deleted)
_____ You just never had the desire.
_____ Other (briefly explain) _____

33. What alcoholic beverages did you taste before age 11? (check appropriate boxes):

9% wine wine & beer 15% wine & liquor 2%
14% beer beer & liquor 9% all 3 17%
6% liquor (e.g. gin, Scotch, bourbon, vodka, tequila, rum, etc. ---
either straight, in high balls, egg nog, etc.)
1% others (e.g. after-dinner drinks such as creme de menthe,
Benedictine, Drambuie, creme de cacao, etc.)
27% never tasted any alcoholic beverage before age 11

34. Under what circumstances did you taste alcohol before age 11?

47% occasional sips
4% as an experiment or a joke
3% as a medicine
19% as part of a regular family (social or religious) custom or practice
27% never tasted alcohol before age 11
<1% other (please specify) _____

35. If you had an alcoholic beverage before age 11, was it with the knowledge and approval of your parent(s)? (check one)

92% Yes }
8% No }

— never tasted alcohol before age 11

36. If you tasted an alcoholic beverage before age 11, did you like it at the time, as far as you can remember? (check one)

{ 39% Yes
39% No

22% no particular reaction one way or another

— never tasted alcoholic beverages before age 11

37. At any one sitting, did you drink _____ of an alcoholic
(deleted) _____
_____ a smaller amount
_____ (never drank)

beverage in high school than when you were in grammar school? (check one of above four choices)

38. At any one sitting, during the time you've been in college, have you drunk

_____ a greater amount of an alcoholic beverage than when you were in
_____ the same amount
_____ a smaller amount (deleted)
_____ (never drink)

high school? (check one of above four choices)

39. Did you drink alcoholic beverages _____ more frequently in high school
(deleted) _____ just as frequently
_____ less frequently
_____ (never drank)

than in grammar school? (check one of above four choices)

40. Since you've been in college, have you drunk alcoholic beverages

(4) more frequently than in high school? (check one of the four choices)
(3) just as frequently
(2) less frequently
(1) (never drink)

$\bar{X} = 3.40$ $SD = 0.93$
 $F(\text{class}) = 23.73^{**}$

41. If you tasted some alcoholic beverage after age 11, where did you have the first drink? (check one)

49% own home
3% never tasted alcohol after age 11
23% home of parents' friend(s)
16% home of your own friend
1% school
4% restaurant, tavern, or bar
0% night club
3% car
1% private club
1% other (please specify) _____

42. During the last school year, approximately how often did you have any alcoholic beverage? (check one)

- (1) never $\bar{X} = 3.22$
(2) 1-5 times during the school year
(3) 6-12 times during the school year $SD = 1.23$
(4) 2-4 times a month
(5) 2-3 days a week $F(\text{class}) = 9.37^{**}$
(6) 4 or more days a week

43. During the last school year, how much beer did you consume at any one sitting -- on the average? (check one)

- (1) never had beer last year $\bar{X} = 2.57$
(2) 1 beer
(3) 2-3 beers $SD = 1.30$
(4) 4-5 beers
(5) 6 or more $F(\text{sex}) = 41.71^{**}$

44. During the last school year, what was the maximum amount of beer you consumed at any one sitting? (check one)

- (1) never had beer last year $\bar{X} = 3.30$
(2) 1 beer
(3) 2-3 beers $SD = 1.98$
(4) 4-5 beers
(5) 6-7 beers $F(\text{sex}) = 58.43^{**}$
(6) 8-9 beers
(7) 10 or more

45. During the last school year, how much wine did you consume at any one sitting -- on the average? (check one)

- (1) never had wine last year $\bar{X} = 2.26$
(2) 1 glass
(3) 2-3 glasses $SD = 0.99$
(4) 4-5 glasses $F(\text{class}) = 5.91^{**}$
(5) 6 or more $F(\text{sex}) = 7.04^{**}$

46. During the last school year, what was the maximum amount of wine you consumed at any one sitting? (check one)

- (1) never had wine last year $\bar{X} = 2.62$
(2) 1 glass
(3) 2-3 glasses $SD = 1.73$
(4) 4-5 glasses
(5) 6-7 glasses $F(\text{class}) = 4.71^{**}$
(6) 8-9 glasses
(7) 10 glasses or more

47. During the last school year, how many drinks of liquor did you consume at any one sitting -- on the average? (consider a drink of liquor as either a shot, high ball, mixed drink, etc.)

- (1) never had a drink of liquor last year
(2) 1 drink of liquor $\bar{X} = 2.96$
(3) 2-3 drinks of liquor $SD = 1.33$
(4) 4-5 drinks of liquor $F(\text{class}) = 4.68^{**}$
(5) 6 or more drinks of liquor

48. During the last school year, what was the maximum amount of liquor you consumed at any one sitting? (check one)

- (1) never had a drink of liquor last year
- (2) 1 drink of liquor $\bar{X} = 3.89$
- (3) 2-3 drinks of liquor $SD = 1.95$
- (4) 4-5 drinks of liquor $F(\text{class}) = 5.17^{**}$
- (5) 6-7 drinks of liquor $F(\text{sex}) = 7.17^{**}$
- (6) 8-9 drinks of liquor
- (7) 10-11 drinks of liquor
- (8) a bottle or more (1/5, or 4/5 - quart) of liquor

49. How many times have you ever been high? (i.e. increased gaiety, slight fuzziness of perception, giddy, light-headed, etc.) check one.

- (1) never $\bar{X} = 2.61$
- (2) 1-5 times $SD = 1.35$
- (3) 6-15 times
- (4) 16-50 times $F(\text{class}) = 5.15^{**}$
- (5) 51-100 times $F(\text{sex}) = 12.26^{**}$
- (6) 100 or more times

50. How many times have you ever been tight? (i.e. physical unsteadiness, slurring of words, overly friendly or aggressive, slight nausea, loss of control over social amenities, etc.) check one.

- (1) never $\bar{X} = 1.76$
- (2) 1-5 times $SD = 0.95$
- (3) 6-15 times
- (4) 16-50 times $F(\text{sex}) = 21.39^{**}$
- (5) 51-100 times
- (6) 100 or more times

51. How many times have you ever been drunk? (i.e. loss of control in ordinary physical activities, inability to respond to reactions of others, overstepping social expectancies short of complete passing out) check one.

- (1) never $\bar{X} = 1.54$
- (2) 1 time $SD = 0.96$
- (3) 2-5 times
- (4) 6-10 times $F(\text{sex}) = 14.70^{**}$
- (5) 11-20 times
- (6) more than 20 times

52. How many times have you ever passed out after drinking some alcoholic beverage? check one.

- (1) never $\bar{X} = 1.29$
- (2) 1 time $SD = 0.75$
- (3) 2 times
- (4) 3-5 times $F(\text{sex}) = 5.69^{**}$
- (5) 6-10 times
- (6) more than 10 times

53. Under what circumstances do you become high most often? (check appropriate choice(s))

23% never become high
<1% during the week, when by myself
2% during the week, when with same-sexed friends
1% during the week, when with opposite-sexed friends
0% on the week-end, when by myself
23% on the week-end, when with same-sexed friends
49% on the week-end, when with opposite-sexed friends
2% other (please specify) _ _ _ _ _

54. Under what circumstances do you become tight most often? (check appropriate choice(s))

50% never become tight
<1% during the week, when by myself
<1% during the week, when with same-sexed friends
<1% during the week, when with opposite-sexed friends
<1% on the week-end, when by myself
21% on the week-end, when with same-sexed friends
26% on the week-end, when with opposite-sexed friends
1% other (please specify) _ _ _ _ _

55. Under what circumstances do you become drunk most often? (check appropriate choice(s))

64% never become drunk
<1% during the week, when by myself
1% during the week, when with same-sexed friends
0% during the week, when with opposite-sexed friends
<1% on the week-end, when by myself
16% on the week-end, when with same-sexed friends
17% on the week-end, when with opposite-sexed friends
1% other (please specify) _ _ _ _ _

56. Under what circumstances do you pass out from alcohol most often? (check appropriate choice(s))

87% never pass out from drinking
0% during the week, when by myself
<1% during the week, when with same-sexed friends
<1% during the week, when with opposite-sexed friends
<1% on the week-end, when by myself
7% on the week-end, when with same-sexed friends
4% on the week-end, when with opposite-sexed friends
0% other (please specify) _ _ _ _ _

57. If you live on campus or have your own apartment, have you ever kept any kind of alcoholic beverage in your room, since you've been in college? (check one)

36% Yes 59% }
24% No 41% }
40% Do not live on campus or own apartment

58. Do you like the feeling of being high? (check one)

64% Yes
16% No
20% Never been high

59. Do you like the feeling of being tight? (check one)

23% Yes
29% No
48% Never been tight

60. Do you like the feeling of being drunk? (check one)

4% Yes
35% No
61% Never been drunk

61. How often do you get high after you start drinking? (check one)

(1) never drink $\bar{X} = 3.76$
(2) drink, but never get high $SD = 1.67$
(3) rarely get high
(4) about 1/4 of the time $F(\text{sex}) = 5.61^*$
(5) about 1/2 of the time
(6) about 3/4 of the time
(7) almost always

62. How often do you get tight after you start drinking? (check one)

(1) never drink
(2) drink, but never get tight $\bar{X} = 2.70$
(3) rarely get tight $SD = 1.14$
(4) about 1/4 of the time
(5) about 1/2 of the time $F(\text{sex}) = 13.08^{**}$
(6) about 3/4 of the time
(7) almost always

63. How often do you get drunk after you start drinking? (check one)

(1) never drink $\bar{X} = 2.23$
(2) drink, but never get drunk $SD = 0.76$
(3) rarely get drunk
(4) about 1/4 of the time $F(\text{sex}) = 6.96^{**}$
(5) about 1/2 of the time
(6) about 3/4 of the time
(7) almost always

64. Have you ever taken some alcoholic beverage on a night before an exam?
(check one)

20% Yes
77% No
3% never tasted any alcoholic beverage at all

65. How often have you taken an alcoholic beverage on a night before an exam?
(check one)

(1) never drink at all
(2) never drank on the night before an exam
(3) 1-3 times
(4) 4-7 times $\bar{X} = 2.21$
(5) 8-12 times $SD = 0.80$
(6) 13 or more times
 $F(\text{class}) = 3.01^*$

66. How often have you taken an alcoholic beverage soon after an exam was over (i.e. immediately after the exam, that night, etc.)? (check one)

- (1) never drink at all
 - (2) never drank after an exam
 - (3) 1-3 times
 - (4) 4-7 times
 - (5) 8-12 times
 - (6) 13-16 times
 - (7) 17-25 times
 - (8) 26 times or more
- $\bar{X} = 2.89$
 $SD = 1.46$
 $F(\text{class}) = 5.20^{**}$
 $F(\text{sex}) = 15.08^{**}$

67. From what source do you get the money to buy alcoholic beverages? (check one)

- 8% never drink at all
- 40% only drink when others buy (e.g. parties, private home, etc.)
- 13% parents
- 38% job
- 1% scholarship money
- 1% other (please specify) _____

68. Has either or both of your parents ever forbidden you to drink? (check one)

- 17% Yes
- 83% No

69. Does either or both of your parents now forbid you to drink? (check one)

- 7% Yes
- 93% No

70. Out of your 5 closest friends, how many drink? (check one)

- 0
 - 1
 - 2
 - 3
 - 4
 - 5
- $\bar{X} = 3.84$
 $SD = 1.52$
 $F(\text{class}) = 10.88^{**}$
 $F(\text{sex}) = 9.86^{**}$
 $F(\text{cxs}) = 3.74^*$

71. For each of the following possible reasons for drinking, check the appropriate degree of importance which that reason has for you -- be sure to make an entry for each item (If you don't drink at all, leave this question blank);

REASON FOR DRINKING

SEE TABLE 8

DEGREE OF IMPORTANCE

CONSIDERABLE SOME NONE

- a. because of enjoyment of taste
 - b. to comply with custom
 - c. to relieve fatigue or tension
 - d. to get high
 - e. to get along better on dates
 - f. to get along better with members of your own sex
 - g. to forget disappointments
 - h. in order not to be shy
 - i. to relieve illness or physical discomfort
 - j. for a sense of well-being
 - k. to get tight
 - l. as an aid in meeting crises, problems, facing challenges, etc.
- (cont'd on next page)

(DEGREE OF IMPORTANCE)

<u>CONSIDERABLE</u>	<u>SOME</u>	<u>NONE</u>
(3)	(2)	(1)

- | | | |
|-----|-----|-----|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | 32 | 33 |
| 34 | 35 | 36 |
| 37 | 38 | 39 |
| 40 | 41 | 42 |
| 43 | 44 | 45 |
| 46 | 47 | 48 |
| 49 | 50 | 51 |
| 52 | 53 | 54 |
| 55 | 56 | 57 |
| 58 | 59 | 60 |
| 61 | 62 | 63 |
| 64 | 65 | 66 |
| 67 | 68 | 69 |
| 70 | 71 | 72 |
| 73 | 74 | 75 |
| 76 | 77 | 78 |
| 79 | 80 | 81 |
| 82 | 83 | 84 |
| 85 | 86 | 87 |
| 88 | 89 | 90 |
| 91 | 92 | 93 |
| 94 | 95 | 96 |
| 97 | 98 | 99 |
| 100 | 101 | 102 |
| 103 | 104 | 105 |
| 106 | 107 | 108 |
| 109 | 110 | 111 |
| 112 | 113 | 114 |
| 115 | 116 | 117 |
| 118 | 119 | 120 |
| 121 | 122 | 123 |
| 124 | 125 | 126 |
| 127 | 128 | 129 |
| 130 | 131 | 132 |
| 133 | 134 | 135 |
| 136 | 137 | 138 |
| 139 | 140 | 141 |
| 142 | 143 | 144 |
| 145 | 146 | 147 |
| 148 | 149 | 150 |
| 151 | 152 | 153 |
| 154 | 155 | 156 |
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| 370 | 37 | |

SEE TABLE 9

DEGREE OF IMPORTANCE
CONSIDERABLE SOME NONE
(3) (2) (1)

- [illegible]

15% Yes
44% No
41% I don't think that alcohol is such an integral part
of college life

97% Yes
2% No
1% I don't know

95% Yes
5% No
1% I don't know

$\bar{X} = 4.20$ (2) 1-5 times during the year (5) 2-3 days a week
SD = 1.65 (3) 6-12 times during the year (6) 4 or more days a week
 (4) 2-4 times a month (1) never

77. On the average, how often have you seen your mother take a drink? (check one)

(2) 1-5 times during the year (5) 2-3 days a week $\bar{X} = 3.39$
(3) 6-12 times during the year (6) 4 or more days a week $SD = 1.48$
(4) 2-4 times a month (1) never $F(\text{sex}) = 4.66^*$

78. Have you ever seen your father high?

58% Yes
42% No

79. Have you ever seen your mother high?

39% Yes
61% No

80. Have you ever seen your father tight?

35% Yes
65% No

81. Have you ever seen your mother tight?

14% Yes
86% No

82. Have you ever seen your father drunk?

22% Yes
78% No

83. Have you ever seen your mother drunk?

6% Yes
94% No

84. Have you ever seen your father pass out from drinking?

8% Yes
92% No

85. Have you ever seen your mother pass out from drinking?

2% Yes
98% No

86. Has your father ever been hospitalized for alcoholism or some related disease (e.g. alcoholic gastritis, cirrhosis, peptic ulcer associated with drinking, delirium tremens, alcoholic pancreatitis, alcoholic heart disease, etc.)?

4% Yes
94% No
2% I don't know

87. Has your mother ever been hospitalized for alcoholism or some related disease (see above examples)?

< 1% Yes
99% No
< 1% I don't know

88. Has either of your parents missed a day (or more) of work as a result of drinking?

14% Yes
83% No
3% I don't know

89. Which alcoholic beverage does (or did) your father drink most often?

2% father never drinks (or never drank); wine & liquor ≤1%
8% wine ; wine & beer ≤1%
42% beer; beer & liquor 1%
42% liquor (i.e. gin, Scotch, bourbon, vodka, rum, etc. -- either straight or mixed)
≤1% other (after-dinner drinks, etc.)
3% I don't know

90. Which alcoholic beverage does (or did, if deceased) does your mother drink most often?

5% mother never drinks (or never drank)
19% wine ≤1% wine & beer
15% beer ≤1% wine & liquor
49% liquor (see above) ≤1% beer & liquor
6% other (see above)
4% I don't know

91. Has either of your parents ever belonged to Alcoholics Anonymous or to Alanon?

3% Yes
96% No
1% I don't know

92. Have you ever belonged to Alateen?

0% Yes
100% No

93. Have you ever felt that you were, are, or might become, dependent upon or addicted to the use of alcoholic beverages?

53% Yes
89% No
8% maybe

94. Has drinking some alcoholic beverage ever interfered with your preparation for, or missing, classes or exams?

7% Yes
93% No

95. Have you ever lost friends or damaged friendships as a result of drinking alcoholic beverages?

2% Yes
98% No

96. Have you ever been injured or in an accident because of drinking on your part?

3% Yes
97% No

97. Have you ever lost a job, been arrested, or gone before high school or college authorities because of drinking alcohol?

3% Yes
97% No

98. Have you ever taken an alcoholic beverage before going to sleep?

55% Yes
45% No

99. Do you ever drink some alcoholic beverage while you're studying?

17% Yes
83% No

100. If you wish to make any comments, feel free to do so:

PLEASE — MAKE SURE THAT YOU ANSWERED

EVERY QUESTION

APPROVAL SHEET

The dissertation submitted by Shula Avni Luber has been read and approved by members of the Department of Psychology.

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

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

5-6-69

Date

Reil Walker

Signature of Adviser