SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION: UNCLASSIFIED	1b. RESTRICTIVE MARKINGS: NONE
AD-A218 188 S)	3. DISTRIBUTION/AVAILABILITY OF REPORT: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.
	5. MONITORING ORGANIZATION REPORT NUMBER(S): AFIT/CI/CIA-89-153
6a. NAME OF PERFORMING ORGANIZATION: AFIT STUDENT AT Univ OF PITTSBURGH / 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION: AFIT/CIA
6c. ADDRESS (City, State, and ZIP Code)	7b. ADDRESS (City, State, and ZIP Code): Wright-Patterson AFB OH 45433-6583
8a. NAME OF FUNDING/SPONSORING ORGANIZATION / 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS: PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification) (UNCLASSIFIED)
THE RELATIONSHIP BETWEEN SPIRITUAL AWARENESS AND RECOVERY FROM ALCOHOLISM

12. PERSONAL AUTHOR(S)
ALBERT L. BREWSTER

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
THESIS/DISSERTATION	FROM _____ TO _____	1989	205

16. SUPPLEMENTARY NOTATION
APPROVED FOR PUBLIC RELEASE IAW AFR 190-1
ERNEST A. HAYGOOD, 1st Lt, USAF
Executive Officer, Civilian Institution Programs

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

90 02 14 045

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	UNCLASSIFIED
22a. NAME OF RESPONSIBLE INDIVIDUAL: ERNEST A. HAYGOOD, 1st Lt, USAF	22b. TELEPHONE (Include Area Code): (513) 255-2259 / 22c. OFFICE SYMBOL: AFIT/CI

DD Form 1473, JUN 86 — Previous editions are obsolete. — SECURITY CLASSIFICATION OF THIS PAGE

AFIT/CI "OVERPRINT"

The Relationship Between Spiritual Awareness and Recovery from Alcoholism

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University of Pittsburgh, 1989

Alcohol related problems place enormous burdens upon families and health care systems. In the United States conservative estimates indicate that approximately 7%, or 10 million adult Americans, are addicted to alcohol; yet only 1% have ever sought help for an alcohol problem. As if the matter were not serious enough, heavy drinking is increasing and treatment of alcoholism is notoriously difficult . The literature suggests that some sort of "spiritual" awakening is necessary before an alcoholic can begin to recover but little or no empirical research has measured the spirituality of recovering alcoholics.

This study sought to examine the alleged relationship between spiritual awareness and recovery from alcoholism. Spiritual awareness was defined in a non-sectarian universal way. Scales measuring both conventional religious and mystical interpretations of spiritual experience were used. Other predictors of outcome, drawn from the literature, included: AA involvement and the background variables of income, age, marital status, sex and race. A survey was mailed to a random sample of alcoholics that completed 28 days of inpatient treatment at Gateway Rehabilitation Center near Pittsburgh, Pennsylvania. Data from 110 respondents were analyzed using discriminant analysis and partial correlation techniques to test the hypothesis that the higher the spiritual awareness of a recovering alcoholic the better the recovery from alcoholism.

Results indicated that conventional spiritual awareness was significantly related to recovery but mystical spiritual awareness was not related.

Time ordering analyses of these data suggested that spiritual awareness might precede and then, in an interactive fashion, be developed by AA. Based upon this study AA may be conceptualized as a program which, through its unique 12 step structure, places in perspective the application of spiritual awareness to the problem of alcoholism. The temporal role of AA appears to be

as an intervening variable between conventional spiritual awareness and recovery.

Supplemental tests using the discriminant analysis procedure indicated that AA involvement was a strongly significant predictor of recovery.

Limitations on the ability to generalize these findings and their relevance to Jungian theory and practice were explained.

ACKNOWLEDGEMENTS

I thank Dr. Gary Koeske for his patience, and for spending a good part of his summer vacation supervising this work. Dr. Esther Sales is appreciated for her work in helping conceptualize some of these relationships and cheerful support throughout. Dr. Mark King was instrumental in getting me started on finding a source for the sample and for an introduction to the "Stone Mason". Dr. Barbara Shore has been a source of kindness, support and encouragement during this entire program of study and I thank her from the bottom of my heart. Dr. Abraham Twerski has generously encouraged my involvement with Gateway Rehabilitation Center, the source for the sample, and inspired confidence in the importance of this research from the start. All of these people have truly served on my Committee and I'm grateful to them and to the spirit of GOD, as I understand it, for making this research so worthwhile.

The staff at Gateway Rehabilitation Center must also be acknowledged. Sharon Eakes, Supervisor of Therapy, anticipated and removed every potential obstacle between me and the data I needed. Plus, she was a sheer joy to work with. Mary Kay Snider, Director of Community Services, spent many hours, and applied her own keen intellect, solving data collection problems. These two and Kay Bryant, Supervisor of Medical Records, made my job as a researcher in their facility pure pleasure.

The 110 people who were willing to extend themselves to take the time to respond to this survey also earn a debt of thanks. Without their willingness to provide the data we wouldn't have been able to complete this project.

Finally, my thanks goes to my family especially my wife Lavina and son George Paul. Their prayers, encouragement, patience, love and support have smoothed the way, allowing me to focus on the task at hand.

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Statement of the Problem

The purpose of this dissertation is to explore the relationship between spirituality and recovery from alcoholism. This research topic is, by design, narrow and specific but the implications may have ramifications far beyond a small universe of alcoholics. When the topics of alcoholism and spirituality are considered together they, in synergistic fashion, become greater than the sum of their parts. For while I focus on alcohol, the fact is, it is only one of many drugs used to alter human consciousness. If spirituality can be reliably measured and does relate to abstention from drug alcohol in this study, then spirituality would become a new variable to be considered when researchers seek greater understanding of what it takes to abstain from alcohol or any other drug habitually used to alter consciousness.

Introduction to the problem

John Tower, President Bush's nominee for Secretary of Defense, suffered an unexpected set-back during his confirmation hearings. The morning paper headlined " TOWER FOE RAISES MORALITY AS ISSUE" to describe the story of allegations that Mr. Tower had been seen drunk in public " frequently . . . over the course of many years". Mr. Tower, who declined to comment on the accusations, was quoted as saying in an earlier interview " I am a wine drinker; I don't drink spirits" (Rosenthal, 1988). Why should any of this matter to the U.S. Congress? And, why should Mr. Tower's description of his preference for wine over "spirits" have any any bearing on the issue of his sobriety? Why should anyone really care if the next U.S. Secretary of Defense is occasionally seen under the influence of alcohol? The answers lie in the perceptions we hold of

alcohol use as a problem with many facets.

Significance and relevance of the problem

Currently, alcoholism and alcohol related problems place an enormous burden on American families and health care systems. Conservative estimates indicate that approximately 7%, or 10 million adult Americans are addicted to alcohol (Niven, 1984), yet only about 1% have ever sought help for an alcohol problem (Clark & Midanik, 1982). In addition, according to Mayer (1986), spouse and child abuse, cancer, heart disease, liver disease and pancreatic diseases all are highly correlated with alcohol abuse. A recent survey by Johns Hopkins Hospital of 2,534 new admissions indicated nearly 20 percent were alcoholic (Moore et al. 1989).

Data provided by the 1979 national survey of adult alcohol consumption are included in Alcohol and Health: Fourth Special Report to the Congress (U.S. National Institute on Alcohol Abuse and Alcoholism.1981) and reported, in comparison to earlier studies, by Clark & Midanik(1982). These data provide an epidemiologic portrait of American drinking. Drinking patterns in the U.S. differ by sex, education, income and religious affiliation. In the 12 months prior to the study twenty percent of the men and 10 percent of the women reported experiencing some symptoms of loss of control of their drinking or dependence upon alcohol. Roman Catholics, Protestants and those with no religious preference included relatively high proportions of "heavy drinkers" (defined as "those who sometimes drink five or more drinks per occasion of at least two beverage types and who report that they drink on at least 10 occasions per month" Clark & Midanik, 1982 p. 14). The proportion of abstainers among Fundamentalist Protestants was high but, among those fundamentalists who did

drink, the rate of alcohol dependence was also high. This pattern of high rates of alcohol problems among drinking Fundamentalist Protestants was also reported by Cahalan and Room (1974). In contrast, Jews showed low to moderate rates of drinking and alcohol dependence.

Higher education was correlated with heavier drinking for men but symptoms of alcohol dependence were not related to educational level for either sex. As income increased the number of abstainers decreased but heavy drinking was not related to income. All the national studies found "abstinence is relatively more common among lower educational and income groups" (Clark & Midanik, 1982 p.30). What these demographic relationships to alcohol consumption seem to imply is that common patterns of alcohol use are found in those social groups who share similar beliefs and values.

Mayer (1986) reports that for young people, between 15-24 years old, alcohol use, usually associated with driving according to Roizen (1981), is the number one cause of death. The fact that young people, especially males, are expected to drink more than other groups may help explain these findings. In addition, the Center for Disease Control reports that 17%, or 1 in 6, of the women in the prime childbearing ages of 18 to 34, consume enough alcohol to endanger a developing fetus ("Drinking Problems Rise," 1988). Since we, as a society, are vitally dependent upon the quality of our offspring, the impact of alcohol consumption upon the unborn must be a matter of critical concern. Due to this high level of concern, I will go into more detail on the impact of alcohol on the unborn.

Alcohol before birth.

While a concern for the unborn has taken on national prominence in the debate over abortion, the impact of alcohol abuse on the fetus, despite

enormous implications in the area of national health policy, has received relatively little attention. Fetal Alcohol Syndrome (FAS) is a pattern of mental, physical and behavioral defects that may develop in the fetus when the mother consumes ethanol during her pregnancy. A safe level of ethanol has not been determined and, since 1981, the Surgeon General has advised all women to "refrain from drinking during pregnancy". Additionally, he urges health care professionals "to monitor the drinking habits of pregnant patients (and those considering pregnancy), to warn patients about the risks of alcohol consumption during pregnancy and to encourage patients not to drink" (National Institute on Alcohol Abuse and Alcoholism, 1985). Despite the Surgeon Generals' warnings and the alarm raised by various substance abuse prevention agencies, 3,600 to 6,000 babies are born with FAS each year (Brandt, 1982). The cost to our society is about one-half a million dollars for each birth plus untold heartache, disappointment and lost potential.

Children of all races (Clarren and Smith, 1978) and from many countries (Majewski, 1981) have been diagnosed with FAS. The incidence of FAS in the USA has been estimated to be between 1 and 2 per 1,000 live births with less serious symptoms of Fetal Alcohol Effect (FAE) showing up in 3 to 5 live births per 1,000 (Clarren and Smith, 1978). Native American Indians may suffer as many as 1 in 100 live births with FAS though their average incidence is 1 in 633 live births (May and Hymbaugh, 1982). The most recent estimates of the overall incidence of FAS in this country suggest that a 1 in 600 rate is probably fairly accurate with 1 in 1,000 incidence being seen as quite conservative. A 1 in 200 incidence of the milder FAE is also estimated (Harwood & Napolitano, 1985).

In economic terms the total expected losses to society summed over all years are $596,000 per FAS birth (children with less than the full syndrome would cost proportionately less). Included in this estimate are expenditures for

health and education and losses in market and household productivity (Harwood and Napolitano, 1985). The emphasis I've placed on reviewing the impact of alcohol on the fetus has been intentionally strong because, after all, the health of our society really depends upon the health of our children.

Other social systems affected by alcoholism .

U.S. law enforcement and correctional systems are swamped with alcohol related crimes and criminals. The most recent Special Report to the U.S. Congress on Alcohol and Health indicates that "Nearly half of all convicted jail inmates were under the influence of alcohol at the time of committing the criminal offense . . . [and] . . more than half of all persons convicted of violent crimes had been drinking at the time of the offense". The victims in one - third of the murders, drownings, boating and aviation deaths were also intoxicated. Alcohol has been consumed by about 25 percent of all suicides (Bradley, 1987). The problems for police and courts not only include the alcohol related murders, domestic disputes and drunken brawls that have been staple legal fare for years, but the problem of what to do with the thousands of homeless people. The problem of homelessness cannot be addressed without mention of the estimates that between 20 and 45 percent of the homeless have alcohol related problems (Lubran, 1987). In short, when looking at the load on our criminal justice system, the role of alcohol abuse cannot be overlooked. The economic cost of alcohol abuse to our society is also of great concern.

Economic costs .

Most of the $117 billion per year that alcoholism and alcohol abuse cost the American economy is in the form of lost productivity (Luckey,1987). This loss of productive power has led to increased development of employee

assistance programs, questions about alcohol use during hiring interviews and even the use of urine screens (designed to trace the presence of alcohol and other drugs) as a condition of employment (Mann,1986).

Drinking Trends.

As if the matter were not serious enough, heavy drinking is on the increase. Hilton (1988), after reanalyzing a variety of survey data collected over the past 20 years, concludes there is some evidence that heavier drinking has increased especially among men and young people of both sexes in the 21- 34 year age group. This situation has not developed over night; history is full of references to concern over alcoholism.

Since the dawn of recorded history, social problems associated with alcohol abuse have been a topic of discussion and organized response. Early Egyptian hieroglyphs include drawings of men, apparently too intoxicated to walk, after they "built houses of beer". The ancient Code of Jewish Law, the Kitzer Schulchan Aruch (Ganzfried, 1927) , as if acknowledging the dangers of what we now call "fetal alcohol syndrome", cautioned newly-weds not to drink wine on their wedding nights and forbade intercourse between husband and wife while either was intoxicated. The Bible, Koran, and the Teaching of Buddha all place great emphasis on lessons dealing with the subject of sobriety and the merit in abstaining from abuse of alcohol.

Seller (1985) summarized the hundreds of references to the religious, physical, social, economic and psychological effects of alcohol abuse found in the Old Testament. He showed that the organized teachings of the Old Testament are not unlike modern systems for classifying the severity of alcoholism and concluded that the Old Testament provides an abundance of clues explaining the relatively low incidence of alcoholism in Jews. In short,

Seller argued that the "attitudes" of Jews toward the use of alcohol were shaped by object lessons contained in the ancient scriptures. Evidence of this apparent "immunity" to alcoholism among Jews was reviewed by Gressard & Bainwol (1988) who suggest that alcoholism prevention programs be modeled after the Jewish experience. This recommendation should come as no surprise since studies of other cultures (reviewed later in this paper) often show people benefited from a well organized approach to the use of alcohol via their religious teachings. In contrast, the heterogeneous, widely ecumenical or even atheistic societies of today are finding the control of alcoholism a most difficult and costly problem. Part of the problem may lie in a misunderstanding of the nature of the drug. Perhaps many, like Mr. Tower, see wine as fundamentally different from "spirits" so, a look at the origins of alcohol may be helpful.

Alcohol: the drug and its origins.

To understand how the use of alcohol affects people we must start, at the beginning, by defining alcohol or, more specifically, ethanol:

ETHANOL: THE BASIC SUBSTANCE IN ALCOHOLIC BEVERAGES

Involved in all alcohol-related problems are the nature of man, his society, his experiences, and a chemical compound known as ethyl alcohol, or ethanol. This compound with the chemical formula CH3CH2OH has such remarkable and seemingly magical properties as the ability to induce euphoria, sedation, intoxication, and narcosis. Of the many known alcohols, it is the only one universally agreeable to man as a beverage ingredient. Other alcohols, including the well-known methyl and isopropyl, have immediate toxic effects that make them unsuitable for drinking. Thus, ethanol, the significant and desired ingredient in the three major classes of alcoholic beverages - distilled spirits, wines, and beers - is the only one called simply alcohol.

ORIGINS

Alcoholic beverages were presumably discovered, rather than invented, in prehistoric times. Their origin is buried in antiquity, though the presence of wine and beer is well attested to in archaeological records of the oldest civilizations (Kramer, 1956; Loeb,1943; Ravi Varma, 1950) and in the diets of

most preliterate peoples.

The surmise that man discovered alcohol very early is based on the nature of the compound. Alcohol can be formed when fermentation is started in sugar-containing plants by yeasts from the environment; the sugar is thereby converted to alcohol. A mishmash of fruit or berries left exposed in a warm atmosphere and thus, to the action of airborne yeasts would normally be fermented into a crude wine. The early men who first consumed the product of this natural event must have felt an effect far more interesting than mere satiation of hunger and thirst.

Ample evidence exists that prehistoric man was technologically as well as artistically creative. A likely guess would be that, in many parts of the world, men quickly proceeded from accidental discovery to purposeful production of alcoholic beverages, and from merely gathering the raw materials to purposeful cultivation. Relatively primitive agriculturists, for example, devised simple ways of converting the starch in grains to fermentable sugar to produce beer; the enzyme necessary for this additional process was provided from their saliva by chewing some of the grain and spitting it into vessels of prepared mash. Men soon learned that beside fruits and grains, other plants such as flowers and cactuses, and many plant products including the saps of trees and even milk and honey, could be fermented to become alcoholic beverages. The result must have been considered well worth the effort. (reprinted from DHEW (1971) The First Special Report to the U.S. Congress on Alcohol and Health)

Cross-cultural studies .

Cross-cultural research reveals a surprising number of societies in which alcohol is consumed regularly and in great quantities, yet few of the people could be determined to be experiencing alcohol related problems.

The Tarahumra Indians of Northern Mexico are described as "happy drinkers safe from alcoholism." The rarity of habitual drunkenness, or alcoholism, among this mountain tribe is attributed to a cultural basis for drinking revolving around a festive setting for socially acceptable intoxication called the "Tesquinada" ceremony (West, 1972). In contrast, the Irish in Ireland (not to be confused with Irish American immigrants) have a very high hospital admission rate for alcoholism and alcoholic psychosis, yet, ironically, their death rate from cirrhosis is low, and the amount of alcohol consumed per person is among the lowest in the world. The explanation for this probably lies in the culturally accepted pattern of excessive but infrequent drinking bouts of

beverages containing an extremely high percentage of alcohol (Walsh & Walsh, 1973).

Studies of patterns of alcoholism in France and America reveal that although the daily average consumption of alcohol in the two countries was about the same, the French had a much higher incidence of alcoholism. The Babor et al. (1973) report concluded that "socially learned meanings and functions of alcohol may be important determinants of the patterning of alcoholism." An earlier (Fort,1962) study determined that alcohol addiction was a problem characteristic of the Western world while narcotics addiction was a problem of the East.

An interesting study (Jay, 1966) of the Hill Maria Gond village of "Orcha (population 200) in middle India revealed the presence of a host of alcoholic beverages and an estimated annual consumption of about ten gallons of distilled liquor per adult man. The villagers abstained from alcohol at times of anxiety - when ill, when witchcraft was feared, at mortuary feasts, during epidemics of smallpox and when a man-eating tiger was in the vicinity. Drinking was heaviest at times of gaiety - at feasts, betrothals, and weddings. When the crops were growing and anxiety about them was greatest, there was very little drinking. When the harvest was in and anxiety was reduced, the drinking tended to increase. Out of 200, only three villagers were reported to drink excessively. In summary, alcohol consumption among the Marias is related more to the happy presence of leisure time and economic resources than to worry about individual or community problems. Similarly, it has been reported (A Greek Psychiatrist, 1967) that although the intake of alcoholic beverages in Greece is substantial, the country has no severe problem in respect to alcoholism. Greeks drink their wine "not for the alcoholic content but as a beverage" always in groups - at home, in taverns and cafes, and during

celebrations and festivities. Most important, Greeks do not look to alcohol for release from emotional stress.

Another study (Swanson, Bratrude, & Brown,1971) attributed the epidemic of alcoholism among American Indian children to boredom, the traditional Indian respect for individual autonomy and the consequent social acceptance of unlimited consumption. Native American Indians, I suspect, would take issue with this interpretation and focus, instead, on the erosion of Indian culture since the coming of the white man.

Keeping all the above studies in mind, one might argue that alcoholism per se is not a necessary by-product of alcohol consumption but rather may be part and parcel of the learned and socially reinforced pattern of coping with life specific to a particular group of people. A similar way of explaining this disparity between cultures might be that alcoholism seems, most often, to appear in "civilized" cultures who are far removed from "primitive" tribal constraints around the use of the drug. Whatever the cause of the disparity, there is no doubt that the advanced nations in the world, the U.S. in particular, are "perceiving" severe problems related to the use of alcohol. I use the word "perceive" here because the presence of alcohol intoxication in a fast paced, high speed, mechanized technological civilization will, quite naturally, be perceived as more problematic than in the slower paced, agrarian based "primitive" culture.

Formulation and Statement of the Research Question

Cross cultural research provides a clue to the mystery of why alcoholism seems to strike certain groups and not others. In the apparent disparity of alcohol problems between intact, "primitive", cultures and highly mobile, "civilized" cultures a key difference may be the "spiritual - awareness" that

primitive people have. More closely attuned to nature's seasons, more dependent upon an interaction between man and beast, earth, sun and rain, the primitive *tends to see all as part of a interactive , interconnected, spiritual "one".* The "civilized" person, on the other hand, sees nature as providing the raw materials for technological control of the environment. If spiritual - awareness does differ between primitive and civilized people, might this difference also explain the difference in alcoholism between these groups? To put the question more precisely, *what role does spirituality play in alcoholism?* While this research is primarily inspired by clinical concerns a sudden burst in the growth of measures of spirituality may be expected due to pressure from an unexpected source- program administrators.

From an administrative perspective, the Joint Commission on Accreditation of Hospitals has, as of January 1, 1988, established a new set of standards to accredit alcohol and drug facilities. The new standards require an assessment of the "spiritual orientation" of the patient (JCAH 1987, Standard AL.2, p.228). The impetus for this emphasis on spiritual awareness came from recovering alcoholics who strongly valued AA's spiritual focus and who also had strong ties to the JCAH board of Directors (Sharon Eakes, personal communication, 13 March 1989). Since no definition of the term "spiritual orientation" was offered it is apparent that the accreditation standards will force programs to reexamine the role and meaning of spirituality as it may pertain to recovery from alcoholism.

Review of the Literature

As part of the review of relevant literature it seems an overview of the conventional wisdom and scientific explanatory models of alcoholism is appropriate. The pattern of this overview is very loosely taken from Bauer

(1982). Two conventional and four scientific models of alcoholism will be presented:

Two Conventional Wisdom Models of Alcoholism

Model 1 - The Moralist Model.

This classic stereotype of the alcoholic still has strong currency among many people. In this moralistic view alcoholics are seen as a class of irresponsible wastrels who seem to prefer living under bridges or in alleys as long as they are not too far from a source of cheap wine. Part of the reason this stereotype remains so persistently imbedded in our culture is that it does portray a common type of alcoholic.

Often referred to as "derelict alcoholic" or "public inebriate", this group, while estimated to comprise less than 5 percent of the total alcoholic population, is highly visible in the downtown areas of many of our cities (Keller, 1967). Because of this high visibility, merchants and shoppers complain to the police and the public inebriates are arrested. About forty percent of all arrests made in the USA are for public intoxication (Lang, 1981). One survey in a typical downtown area revealed that shoppers felt "disgusted" by the presence of "certain negative elements . . . winos" and were afraid they might be accosted by a derelict alcoholic (Norfolk Chamber of Commerce, 1978). Another report seeking to identify and describe the derelicts found there was only one common denominator "they are all alcoholics" (Norfolk Department of Human Resources, 1978). These people are usually males whose alcoholism has led to unemployment, disaffiliation, poverty and homelessness. In this model, alcoholism is at best an example of a weak will, at worst a sin with the alcoholic a willful sinner. The prognosis for recovery is bleak and, most often, treatment

consists of periodic stays at the Union Mission, Salvation Army or the state hospital.

Recently, some cities like Norfolk, Virginia have instituted "social", in contrast to more expensive medical, detoxification programs where a cadre of dedicated recovering alcoholics, trained as emergency medical technicians, "sit" with the alcoholic during withdrawal from the drug. Hopefully, the alcoholic is now ready to be worked into a network of other services leading to recovery. These programs are few and far between and, I suspect, the impetus for their funding may lie more with concern over the fiscal health of the shopping districts than concern for the physical health of the alcoholic. The social response to the alcoholic has historically been "get out of sight".

Evidence for the persistence of this stereotype, as a conventional model generalized to all alcoholics, can be heard in any alcoholism rehabilitation center. When confronted with their diagnosis people will frequently deny they could possibly be an alcoholic with statements like:

"I can't be an alcoholic. I go to work every day."

"I can't be an alcoholic. I've never struck my kids".

"I'm not an alcoholic. I have discipline".

"I'm not an alcoholic. I only drink (wine, beer, after 5 p.m., on weekends).

"I'm not an alcoholic. I come from a fine family and I've got a degree in _____(law, medicine, engineering, social work).

"I can't be an alcoholic I've never been arrested".

These spontaneous responses by members of our work ethic driven, clean, responsible, society may be seen as a defense against the image that springs to mind of the skid row bum dressed in smelly rags .

Model 2- The Legalist Model

This view of alcoholism is held by those who believe that the best response to social ills is to legislate against them. In contrast to the Moralist Model, believers in the Legalist Model view the alcoholic as willfully disobedient rather than weak willed. To them the alcoholic is not much more than an errant child who would behave properly if alcohol were beyond reach and there were sufficiently harsh penalties for its use. Firm believers in our system of laws, these people are unlikely to have been exposed to works (Brecher, 1972; Brewster,1987; Hamowy, 1987; Lindesmith,1971; Musto,1987; Taylor,1969; Terry & Pellens,1928) revealing the utter failure of drug prohibition throughout the ages. In terms of drug alcohol, this model is not now as prevalent in the U.S. as in the fundamentalist Muslim areas of the world. However, the Christian evangelical fervor leading to passage of the 18th Amendment to the U.S Constitution, and the Volstead Act of 1919 detailing its enforcement, indicates the potential exists to, in the words of former Speaker of The House Oscar Underwood, push for a " tyrannous scheme to establish virtue and morality by law" (Musto, 1987 p.67).

The treatment approach favored here is to bring social measures to bear until either guilt or legal consequences forces a change in behavior. The effectiveness of such approaches may be debatable for other drugs (Brewster,1987c). But, as far as alcohol is concerned, 13 years of "the noble experiment" of prohibition only led to its repeal. The 21st Amendment was passed December 5, 1933. After taxes from the sale of alcoholic beverages began to help defray the costs of the great depression, serious talk of returning to prohibition dwindled.

Using this approach on an individual scale seems to work no better than

it did on a national scale. Rebellion against this rigid moral point of view has led many into alcoholism, not the least of which was Dr. Bob, one of the early founders of AA. He tells his "story" titled "Dr. Bob's Nightmare" in the "Big Book" of Alcoholics Anonymous (Alcoholics Anonymous,1976, 171-177). A hint of support for this idea of a link between rebellion against rigid codes and alcoholism seems to come from the latest national surveys of alcohol consumption trends. According to Clark & Midanik, (1982) the proportion of abstainers among Fundamentalist Protestants was high but, among those fundamentalists who did drink, the rate of alcohol dependence was also high. This pattern of high rates of alcohol problems among drinking Fundamentalist Protestants was also reported by Cahalan and Room (1974). However, another explanation (cf. Hill, et al.1988,1987, 1977; Cotton,1979; Partanen, 1966) for this phenomenon may be that the grandparents of families genetically predisposed to alcoholism deliberately joined religious sects which forbade consumption in an effort to control their own compulsions to drink. Now, a generation or two later, the grandparent's original rationale for subscribing to a "religious prohibition" on alcohol has been forgotten. As succeeding generations attempt to drink (perhaps, in part, due to rebellion) they succumb to their genetic inheritance of alcoholism.

It should be noted that, in contrast to total prohibition, judicious application of laws and regulations are being used with some success in controlling availability, and, to some degree, shaping alcohol consumption patterns. Coate and Grossman (1987) report that reductions in youthful alcohol consumption and motor vehicle fatalities may be achieved through a policy blend of increased age to purchase alcohol and increased tax on beer. They caution, however, that these measures can only be taken so far before the demand for illicit, bootleg, alcohol is stimulated.

Scientific Theories of Alcoholism

The scientific, or as Bauer (1982) calls them " professional" models of alcoholism are, by definition, supposed to be built upon objective empirical research. This research has led to a variety of theories of etiology, but no single cause of alcoholism has been defined. As the conventional models of alcoholism have developed, they have interacted with the scientific theories either through the moral attitudes they instilled in the scientists or in the role they play in helping to understand the etiology of alcoholism. The scientific theories can be separated into medical, physiological, psychological and sociological models.

The Old Medical Model.

The medical model is found in two forms, one "old" and one "modern". The "old" medical model for understanding and treating alcoholism addresses the ravages of alcohol upon the body first and then, if no medical alternative is seen, seeks to re-integrate the alcoholic back into the world of social drinking. This model stands in marked contrast to moral and legally based conventional wisdom because it sees the alcoholic as physically ill rather than morally corrupt. The physician sees alcoholism as an attack upon the physical health of the alcoholic and moves quickly to address any electrolyte imbalances, rehydrate, check clinically and through blood work for evidence of liver cirrhosis and, through the careful use of other drugs, ease the symptoms of withdrawal. This approach is quite necessary for, despite the common perception of opiate withdrawal being the most dangerous, it is only alcohol and barbiturates, characterized by Brecher (1972) as solid alcohol, that present life threatening withdrawal symptoms. The extreme danger of alcoholism to body, mind and

social functioning led many turn of the century physicians to treat alcoholism by switching their patients' addiction to a more benign drug - opium. This worked well (Brecher, 1972) until opiates were outlawed and both prescribing physicians and their alcoholic/opiate addicted patients became outlaws. Physicians, without opiates as an alternative, naturally felt helpless, tended to abandon their medical training and dropped back to the conventional models they had grown up with of "they're just no good bums" and "can't hold their liquor". When the patients were unable to learn to moderate their intake of alcohol they were often dropped from treatment for "lack of progress" and moralistically categorized "hopeless". This "old medical" model has gradually given way to the "modern medical" model.

The Modern "Disease Concept of Alcoholism".

The origins of the "modern" model of alcoholism are traced by Jellinek (1960) who, while giving credit to the early 19th century physicians Benjamin Rush and Thomas Trotter, saw that the repeal of the 18th Amendment " . . . reawakened the interest of research workers in "alcoholism" (p.7). In 1956 the mounting body of research led the American Medical Association to classify alcoholism as a progressive disease and by 1958 national surveys were indicating that 58% of Americans considered "someone who habitually drank" as being "sick" rather than "morally weak" (Jellinek, p.183). In 1960 Jellineck, after 18 years of research, published his "Disease Concept of Alcoholism" and applied the Greek letters, Alpha, Beta, Delta and Epsilon to label the distinct species of alcoholism he found across cultures.

Alpha alcoholism represented the "purely psychological continual . . . . reliance upon alcohol to relieve bodily or emotional pain". The damage from this form of alcoholism was viewed as primarily affecting interpersonal relations,

the marriage, family or job. The drinker was, in Jellinek's words "undisciplined". No danger from withdrawal is noted "*Nor are there any signs of a progressive process* " (italics in original, p. 36). This concept may be likened to what is called "problem drinking" today.

Beta alcoholism is a form of heavy drinking that may be derived from the "custom of a certain social group in conjunction with poor nutritional habits". While neither physical nor psychological dependence is noted, complications of "polyneuropathy, gastritus and cirrhosis of the liver may occur" (p.37).

Gamma alcoholism is characterized by both psychological and physical dependence with a build up of tolerance to the effects of alcohol and signs of withdrawal noted. Loss of control over drinking behavior impairs interpersonal relations. "The damage to health in general and to financial and social standing are also more prominent than in other species of alcoholism". This form of alcoholism is "apparently . . . the *predominating* form of alcoholism in the United States, Canada and other Anglo-Saxson countries"(p. 38).

Delta alcoholism is what is so often found in Europe. It is similar to Gamma, with increased tolerance and physical dependence but instead of loss of control there is an "inability to abstain". This alcoholism is seen as largely a function of social acceptance of a high consumption of alcohol rather than personality. Little damage to family and finance is posed by this sort of "inveterate drinking".

Epsilon alcoholism is what is called "Episodic Alcohol Abuse" today. Marked by periodic bouts of alcoholism that may last only the weekend or for a few weeks at a time, these drinkers may be able to abstain for long periods and, at times, drink with no apparent loss of control.

Jellinek also provided us with understanding of the terms "inability to abstain" and "loss of control". Inability to abstain may be distinguished from loss

of control by reflecting on the Delta alcoholic. The Delta is in effect maintaining a dose of alcohol and is unable to abstain without suffering withdrawal symptoms. However, the Delta can control the amount consumed. In contrast, loss of control is first seen "several years after the first intoxication" as a developmental stage in the disease progression where one drink sets up a sort of chain reaction leading to more and more alcohol even though the honest intent is to have only one or two drinks (p.42). This loss of control is in a very real sense a loss of freedom . It is this loss of freedom that is often very frightening to the alcoholic and the symptom most often linked to the disease concept of alcoholism.

Jellinek saw the disease progressing through three phases. In the "prodromal" phase the person experiences alcohol induced blackouts. The "crucial" phase is marked by loss of control. The "chronic" phase is evidenced by an accumulation of damage to interpersonal relations, marriage, family or job, binges and signs of physical dependence.

While Jellinek's typology of alcoholics is useful in understanding the variety of signs and symptoms, his thesis of alcoholism as a progressive disease with definite phases has been challenged in at least two areas. First, the fact that his theories were in great part derived from retrospective accounts of AA members threatens the generalizability of his findings (cf Trice & Roman, 1970). Second, replication studies have failed to support his presumed order of alcoholic phases (Clark, 1975; Park, 1973; Trice & Wahl, 1958). The progression of alcoholism, as suggested by Jellinek, is "neither predictable nor inevitable for any given individual" (cf. Caetano 1985, 1987, 1988; Conrad and Schneider,1980;Edwards,1982;Emrick,1974;Sundgren et al., 1986 p.922). Despite these shortcomings, Jellinek's progressive disease model remains the most widely know explanation for changes in alcoholism over time.

Like the "old" model the "modern" medical model rapidly treats the body of the alcoholic using the latest techniques. The metabolism is stabilized and withdrawal symptoms are monitored; in addition, nutritional supplements are provided and a request for consultation by psychiatrist and/or social worker is ordered. Alcoholics Anonymous is encouraged and involvement of the spouse and older children in Al-Anon and Al-Ateen, respectively, is suggested. This "modern" medical model differs from the old medical model in its recognition of hope, through AA mainly, rather than a reliance on moralism.

The gap between the popular AA approaches, based upon the Jellinek model, and the world of research is wide. As Caetano (1988) astutely observes ". . . there is now a schism between paradigms of alcohol dependence governing research and treatment" (p.225). From Caetano's perspective, treatment programs, particularly in the USA, adhere to AA's 12 Step and Jellinek's (1952, 1960) disease based model. This model is reflected in the 3rd edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III). On the other hand many researchers, who like Conrad and Schneider (1980) noted that most alcoholics don't seem to fit a strictly medical definition of physical dependence and withdrawal symptoms, choose to follow the multivariate research based model of Alcohol Dependence Syndrome. This model, popular in Britain, is used in the 9th and 10th revisions of the International Classification of Diseases (ICD-9, ICD-10) and, to a lesser degree, in the latest revision of DSM-III known as DSM-III-R. The confusion in the research literature, if not the treatment field, over defining alcoholism is far too extensive to cover here. For a taste of the debate peruse Caetano (1985, 1987, 1988) and, from a public policy perspective, Fingarette (1988).

It is safe to say that the issue boils down to one that even Jellinek (1952) foresaw. The lay public, strongly influenced by AA, finds a simple answer to a

complex problem in the disease concept of alcoholism. Researchers, charting the complex psycho-social correlates to alcoholism, prefer a more empirically refined definition. The net result is a sense of animosity between both camps that hampers communication and the use of research by clinicians. In the USA, Pattison & Kaufman (1982) have made an attempt to bridge the gap between clinicians and researchers on this issue of defining alcoholism. In Britain, Edwards (1982) has directly urged the use of research findings in his The Treatment of Drinking Problems: A Guide for the Helping Professions .

Since the late 50's the "Disease Concept of Alcoholism", based in great part upon the work of Jellinek and relying heavily upon AA for follow-up care, earned credibility. At the same time higher priority was placed upon research to develop greater understanding of the disease. Current theories explaining the disease and suggesting possible cures may generally be classed as physiological, sociological and psychological.

Physiological models.

Physiological theories are now receiving a great deal of attention from the research community. Recently an entire issue of a prominent journal was dedicated to covering a symposium on the genetics of alcoholism (Alcoholism Clinical and Experimental Research, 12, (4) August 1988). Bio-physiologic and genetic theories assume that alcoholics are, in some way, constitutionally predisposed to alcoholism. This notion is by no means new; it has been observed for years that the relatives of alcoholics have much higher rates of alcoholism than the general public. In 1945 the genetic theories held such sway that Jellinek(1972) felt compelled to comment upon them before explaining his, more culturally based, theories.

Now it is fairly well accepted that at least a portion of vulnerability to

alcoholism can be attributed to genetics however the type vulnerability and its mechanism is still unclear. It has been long known that vitamin B deficiencies are found in alcoholics (Brady & Westerfield, 1947; Brown, 1969; Mardones, 1951). These deficiencies, presumably, may lead to metabolic changes and a craving for alcohol. Studies of twin pairs show that identical (monozygotic) twins share greater concordance in drinking behavior than fraternal (dizogotic) twins (Kaij, 1960; Partanen, 1966). Adopted male children of a biologic parent who is alcoholic have four times the rate of alcoholism than male children of non alcoholics even if raised by non drinking adopted parents (Goodwin, et al.1973). It has been shown that alcoholism runs in families (Cotton,1979; Hill et al., 1977) A review of the research supporting the genetic theories provided by Murray & Stabenau (1982) concluded that ". . . family, twin and adoptive studies concur in finding more evidence for male drinking being under genetic influence than female drinking" (p.142). Recent work by Hill et al (1988) continues to supports the theory of genetic predisposition and begins to clarify whether the genetic factors or the alcoholism consumption lead to metabolic changes. Hill and her colleagues, in search of markers for alcoholism risk, found that, after controlling for alcohol consumption during the previous week, neuroelectric activity measured at the scalp varied significantly between members of families affected by alcoholism and members of control families not affected by alcoholism. In sum, the evidence suggesting that *a genetic predisposition to alcoholism exists for certain people* is impressive and growing. Most researchers, however, contend that it will take a blend of genetic, psychological and sociological theories to fully answer the question of what causes alcoholism.

Sociological models.

The theories of Emile Durkheim (1951) have been applied to the study of alcoholism by Roman (1982). By re-working Durkheim's thinking we can speculate that he might suggest the occupational group as the best organ to redirect the egoism and anomie at the root of the alcohol abuse problem. This Durkheimian notion of rehabilitation through the workplace appears, with an up to date primary prevention and early intervention focus, as an approach with much currency today. As for the unemployed alcoholic, the process of detoxification, return to financial independence through work and subsequent supportive follow-up within the powerful context of an employment based counselor or a counselor communicating with the employer is the cornerstone of many modern alcohol rehabilitation program treatment plans.

Zucker and Noll (1982) developed a model of alcoholism etiology based upon a substantive review of the longitudinal research available. The model included four classes of influence: sociocultural and community, primary group (family), intimate secondary group (peer and spouse) and intra-individual influences. Their review indicated that (1) longitudinal studies of problem drinkers as children show lack of family cohesiveness, inconsistent parenting and parental deviance in their histories. (2) Peer influences become increasingly more significant as the child grows older while parental influences remain constant or drop out entirely as the child enters adulthood. (3) Early attitudes about alcohol appear to be determined as much by cognitive/development factors as they are by the information available. (4) Transition points (e.g. high school to college, college to work) seem to mark increases in drinking. (5) Existing research still leaves unanswered the critical question of the extent to which alcohol problem can be anticipated prior to the drinking years.

Psychological models.

Psychological theories of alcoholism may be generally classified in one of three camps: personality, behavioral, and psychodynamic theories. Like the physiological theories the psychological theories of alcoholism are far from identifying a central causative factor. Personality Theory is based upon the assumption that certain personality types predispose a person to alcoholism. Kolb (1973) states bluntly "Alcohol addiction is symptomatic of personality disturbance . . . The vast majority have character traits of the inadequate, passive-aggressive personalities. A lesser number are rigidly organized, compulsive individuals with depressive affect and certain paranoidal personalities" (p.205). Kolb cites no specific research to support his assertions. However Barry (1982) cites work by Kammeiier, Hoffman and Loper, suggesting that high scores on the MMPI's measure of psychopathic deviancy and low scores on depression may identify early stage alcoholics. Time ordering of psychological factors is often problematic. This prevents a clear understanding of whether a psychological factor is a consequence or a cause of alcoholism. Treatment follows a basic routine program of active physical exercise, constructive occupational work, agreeable social relaxation and . . . analysis of his personality difficulties" (Kolb, 1973; p.219).

Behavioral theories assume that the use of alcohol comes as a learned response to the reduction of stress, tension and anxiety. These behavioral approaches to alcoholism have been reviewed by Marlatt & Donovan (1982) and Powers & Kutash (1985). Problem drinking is seen as a "multiply determined, learned behavioral disorder" (Marlatt & Donovan,1982, p. 561). This theory views past learning, prior experience with alcohol, and cognitive expectations about alcohol's effect as antecedents to drinking behavior. The

consequences of drinking reinforce the drinking behavior. In the behavioral view, alcohol works. Alcohol works effectively at first, but soon, the individual is requiring more alcohol to treat withdrawal symptoms or to reduce the tension and anxiety caused by alcohol related misbehavior. Eventually dependence develops and then drinking is done to forestall withdrawal symptoms. This tension-reduction hypothesis was based on the "Hullian" learning principles popular in the 1950's and reviewed by Chappell and Herman (1972). This simple tension reduction model has not been supported in the literature. In an effort to more fully explain alcoholism, behaviorists have begun to include cognitive factors along with learning theory to form models of "Cognitive Social Learning ".

Among these Social Learning Theory (SLT) authors is Bandura (1977, 1980) who maintains that parents and peers model normative behavior, which must be considered when studying drinking behavior. When parents use alcohol as a method of coping, a similar pattern is likely to be found in their children. In addition Streit (1978) and, tangentially, Ellison (1983), suggest that childhood perceptions of parental love are good indicators of adult drug usage. In respect to peer modeling, a tendency to emulate the drinking behavior of peers was shown to be true for male adolescents by Caudill and Marlatt (1975). An attempt to connect Social Learning Theory with alcoholism treatment outcomes was conducted in a dissertation by Zismer (1983). He reported that recovering alcoholics in treatment learned, over time, to place less value upon alcohol as a (presumably positive) reinforcer. Zismer reports that as the alcoholics placed less value on alcohol their commitment to sobriety increased. Duckert (1984) also reported success using Social Learning Theory in a program designed to rehabilitate the vocational skills of alcoholics and other drug users.

Both of these attempts to apply Social Learning Theory to alcoholism lend credence to Bandura's notion that an individuals perceived "Self Efficacy" is key to behavioral change. "Self Efficacy" simply reflects the individual's belief that they can or cannot perform the behavior that a particular situation requires. If "Self Efficacy" can be modified to the degree where an individual can rely upon some other coping skill in a situation where alcohol would have previously been used, then the individual has been given greater control or power. The importance of perceived power is part of McClelland's work.

McClelland et al (1972) observed that as the amount of alcohol consumed increased, perceptions of power and control also increased. They hypothesized that alcohol consumption was partially a response to a perceived need for greater control and power. There are a number of studies that tend to support this view that alcohol consumption increases in situations where the individual perceives relatively low levels of self efficacy (Miller,1977).

White (1982) has attempted to integrate socialization, sociocultural and social deviance theories into a "socioenvironmental" model of alcoholism. White sees the most likely candidate for alcoholism as someone without membership in a group that will strongly regulate behavior and someone who perceives a high level of stress. Furthermore, in White's model, the person at risk for alcoholism believes that alcohol will relieve stress. Dependence develops as ever greater quantities of alcohol are consumed in an effort to reduce the rapidly expanding perception of stress.

The psychodynamic explanation for alcoholism lies in the notion that excessive indulgence or deprivation in early childhood leads to a strong dependency need in adulthood. When these unrealistic needs cannot be met, the person develops compensatory needs for control and power. As a drug, alcohol tends to reduce the anxiety caused by the dependency needs and may

even feed a grandiosity or sense of power while under the influence. Once sober, the same old insecurities return and require medication again - with alcohol. A problem with this theory is that the early childhood traumas are frequently experienced by many who never develop a problem with alcohol. Psychodynamic theory will be addressed again, later, when it is compared with Jungian Depth Psychology. One common denominator that separates out all of the psychological theories is that they refute the medical model of alcoholism as a progressive disease.

Treatment of alcoholism

It is now well established that alcoholism is a persistent and apparently intractable disorder. Treatment of alcoholics is notoriously difficult, with full recovery from the debilitating progress of the disease less frequent than relapse. After analyzing pooled data from 265 outcome studies of a wide variety of treatment interventions, Emrick (1974) separated the data into nine outcome categories. He then reported that during "follow-up periods of varying lengths . . . about 66% were improved in drinking behavior to at least some minimal extent [of these] about 50% were drinking without problems [and] . . . about 33% . . . were totally abstinent . . . about 33% were unimproved, about 5% [of these] were drinking more during follow-up than before treatment . . . . " (p.1154). This need to expand outcome categories is also seen as necessary by others.

An exhaustive four year follow-up interview of a random sample of 922 alcoholics, treated by NIAAA funded programs during a baseline period in 1973, was conducted by Polich, Armor & Braiker (1981). They found at four years that 46 % were in "remission for at least six months: 28% abstaining and 18% engaged in drinking without problems"(p. 216). They noted that all types

of remission were "subject to a high probability of relapse. . . [and concluded that] Instead of using long-term continuous remission as the measure of success, we suggest that a more reasonable standard would be the total length of time spent in remission periods". These authors also note that the value of treatment is very hard to study due to so little research on untreated alcoholics. Consequently the rate of spontaneous or "natural remission, among populations that have never been in treatment, may be quite substantial", but is impossible to determine (p.220).

With all these treatment difficulties in mind many have turned to the prospect of preventing alcoholism. While prevention efforts have been under way, great controversy over their effectiveness has ensued and, as noted by both Mayer (1986) and Grant (1986), little work on their theoretical underpinnings has been published.

Predictors of recovery.

By and large research has failed to develop useful predictors of recovery following treatment for alcoholism. In a review of 23 articles reporting outcomes of alcoholism treatment efforts over a two year follow-up period Costello (1975) found that the major predictor of favorable outcomes was the ability of treatment programs to match relatively better prognostic cases with broad treatment resources. Lettieri (1986) reports that failure to develop predictive tools is impeded by five methodological factors:

1- Unidimensionality in the view of the alcohol dependent person

2- Lack of standard measures and the use of heterogeneous sample groups

3- Developmental lag related to the cyclic nature of the disease

4- Need for multistage prediction

5- Inability to assess treatment readiness.

After reviewing the literature on treatment outcomes for women alcoholics

between 1972 -1980, Vannicelli (1984) blamed the lack of predictors upon poor research methods. Babor et al. (1988) also complained of methodological difficulties in treatment evaluation. While global reviews of the literature have not been successful in identifying common predictors, individual studies offer some insight.

Social support has been shown to be highly correlated with successful treatment outcomes, in male (La Jeunesse, and Thoreson,1988), female (Macdonald, 1987) and mixed samples (Koeske, 1975; Segars, 1989). Macdonald (1987) reported that the number of perceived emotionally supportive relationships positively correlates with sobriety while the number of perceived dysfunctional relationships (those who encourage her to drink or make it hard for her to resist) negatively correlates with sobriety. Koeske (1975) reported that perceived support from friends, co - workers and spouse was an important predictor of successful treatment outcomes. In a similar vein Koeske reported abstainers were more likely than other to perceive receiving "especially useful assistance [from program staff] in dealing with family members and 'other people' " (p.83). Chapman and Huygens (1988) found, in their sample of 113 (90 men and 23 women) alcoholics, that those who felt coerced into treatment drank significantly less (on follow-up). They also found that fewer job changes correlated with abstinence post treatment. All of these studies support the idea that strong social support plays a significant role in recovery.

Other socio-demographic variables have also been shown to correlate with abstinence. Chapman and Huygens (1988) found that higher net weekly incomes were associated with abstinence. They also found age at first admission to be negatively correlated with successful treatment outcomes and that a first admission for alcoholism after the age of 45 was related to post

treatment abstinence. Macdonald (1987) also found age to be a factor; a nonlinear trend was found with middle aged S's (40-49 years) most likely to be sober. Koeske (1975) found abstainers to typically be older than 21 years. Marital status may also play a role. Leonard, Harwood, & Blane (1988) noted that single, separated or divorced 20-30 year old males scored significantly higher on a measure of Preoccupation with Alcohol. They also observed subjects acknowledging "any religious preference tended to manifest somewhat lower Preoccupation with Alcohol scores than subjects who endorsed no religious preference" (p.395).

Abstinence from alcohol prior to treatment was found to be a significant predictor of post treatment success by both Koeske (1975) and Chapman & Huygens (1988). Koeske (1975) found that the strongest predictor of post treatment abstinence was an affirmative response to the item: " Before entering Gateway for treatment I had already stopped drinking completely" (pp. 69-72). This observation was supported by Chapman & Huygens (1988), who found that having had a pretreatment period of abstinence was associated with drinking less on follow-up.

Self efficacy also seems to play a crucial role in recovery. Chapman & Huygens (1988) most significant finding was that subjects who predicted that they would probably be drinking a year after treatment were most likely to be drinking on follow-up and vise versa. In a similar vein, Armour et al. (1978) suggest that recovery from alcoholism depends to a large extent upon the individual's decision to stop or decrease the amount of alcohol consumed. These observations support a social learning perspective on the role that cognitive expectations have in the behavior of alcoholic clients. The work of Frank (1963) would also suggest that the presence of a self directed client would be a powerful predictor of treatment success. Other authors more

specifically concerned with alcoholism treatment, like Bandura (1980), Rollnick & Heather (1982) and Koeske (1975), would tend to agree that the client's own prediction of treatment outcome should not be taken lightly. Despite massive allocations of treatment resources a client who has strong doubts about his ability to curtail his drinking behaviour may be far less likely to recover than an alcoholic, strongly convinced that he can stop drinking, who receives minimal treatment intervention.

Similarly, other beliefs held by recovering alcoholics are predictive of abstinence. Koeske (1975) reported that a key belief found in abstainers was that they could not return to " normal drinking" and they "did not expect to return to drinking after treatment" (pp. 70-72, 84-85). In a similar vein, Baum, Lahage & Rademacher (1977) found that the more strongly clients believed their alcoholism was a serious threatening illness the more likely they were to abstain. These earlier findings seem to be reinforced by Marlatt (1987) who concluded that drinking patterns are strongly influenced by the beliefs that alcoholics hold about the the effects expected from alcohol. In other words, ". . . heavier drinkers expect greater positive effects from drinking than do light drinkers"(p. 13).

AA involvement is a variable that, while predictive of abstinence, may not be the treatment of choice for everyone. Chapman and Huygens (1988) found that one half of the abstinent subjects and only one quarter of the drinkers had attended AA in the previous 6 months. They also reported that abstainers had attended six times more AA meeting in the previous 6 months than had drinkers. Suggesting that AA is not the only way for many recovering alcoholics, Baum et al. (1977) reported that "abstainers were as likely to be regular attenders at AA as they were to never go to AA" (pp 81-82). A strong support for Baum's findings appears to come from the exhaustive 4 year follow-up of 922 alcoholics

by Polich et al. (1981). They found that "those who attended AA regularly at 18 months had about the same problem rates at four years as those who had never attended AA"(p.214). Nevertheless, AA is the most widely used method of overcoming alcoholism.

Alcoholics Anonymous.

AA is neither a "conventional" nor a "scientific" model for explaining alcoholism but, perhaps, a bit of both. Indeed one recent review (Bradley,1988) described AA as "a model for synthesizing biomedical, psychosocial, and environmental approaches to alcoholism . . ." (p.198). AA does not view alcoholism from a fatalistic, moralistic or legalistic point of view. AA sees alcoholism as a progressive disease characterized by loss of control with physical, emotional and spiritual components. In addition, AA describes itself as a "fellowship" whose only requirement for membership is "a desire to stop drinking" (see tradition # 3 of the Twelve Traditions and the Twelve Steps of AA included in Appendix B of this paper). Whereas some of the previous models were pessimistic about recovery, AA, through a workable set of steps, offers hope and, via the disease concept employed, a relief from guilt.

Treatment consists of total abstinence and continued involvement in the fellowship of AA. Exposure to the literature and " working the steps" will lead to recovery over time but the alcoholic is never more than "one drink away from the next drunk" and must take "one day at a time" in AA. Dropouts are "people who aren't ready to quit yet" they may not have had their last drink but they've surely "enjoyed their last drink" for if AA promises nothing else it promises to "mess up your drinking". Since AA doesn't find fault with those who choose to drink, the recovering alcoholic needn't feel he has to avoid the rest of the drinking culture because he is a member of AA.

Bradley (1988), after review of the literature, makes the general observation that "individuals who join AA without the benefit of other forms of treatment enjoy an abstinence rate of approximately 26 to 50 percent at 1 year" (p.195). AA may also be valuable as a pretreatment influence, serving to break down resistance to additional treatment . Studies of the effectiveness of AA as aftercare indicate that this may be its most effective role in treatment, with only 3 out of 18 studies reviewed indicating a negative impact of AA on outcome. AA attendance post treatment varies down to 14 to 25 percent at four year follow-up. As a multimodal treatment component AA's impact appears to be good but solid conclusions are not possible due, primarily, to disparities in research methods and definitions. Despite over 30 studies examining a variety of psychosocial demographic variables "no clear profile has emerged of the alcoholic most likely to affiliate with AA" (p.196). The relationship between the frequency or extent of AA participation and outcome is not agreed upon in the literature, however, AA's own triennial surveys report that frequency of attendance is not related to length of sobriety. More detail on the origins, history and structure of AA is in appendix C of this paper. However, since the thrust of this research concerns the role that spiritual awareness might play in recovery, a brief exploration of the AA's spiritual aspects, within the context of Jungian Theory (described in more detail later), is in order.

The very first step in AA reflects the important place that giving up conscious control has in any analytically based view of human psychology: 1. "We admitted we were powerless over alcohol--that our lives had become unmanageable". Parallels to this step toward loosening conscious control may be seen in the free association techniques of Freud. But the next step, *with its suggestion of a spiritual power*, moves the process of recovery into the area of Jungian theory.

2. "Came to believe that a Power greater than ourselves could restore us to sanity". The third step serves to integrate an awareness of the spiritual into the realm of conscious action:

3. "Made a decision to turn our will and our lives over to the care of God *as we understood Him"* (italics in original). This integration of unconscious spiritual awareness with consciousness is a hallmark of Jungian theory. Steps 4 through 10 cover taking a "fearless moral inventory", admitting wrongs, being ready to have "God" remove character defects and asking for their removal, making amends to others and continuing the process of noting personal faults and admitting wrongs. Step 11 implies again, as Jung would, the importance of connecting with unconscious spiritual energy:

11."Sought through prayer and meditation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out". The 12th step sums up the whole process as a "spiritual awakening":

12. "Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs". In short, the AA 12 steps may be seen as a blend of Jungian theory and Judeo-Christian concepts. The AA process of recovery begins, ends and, as a life long program of recovery, continuously re-emphasizes becoming spiritually aware. Now, more detail on the concept of spirituality, followed by an introduction to Jungian theory:

Spirituality defined.

The nature of spirituality has fascinated many but few have applied scientific technique to study it. One of the earliest efforts to gain an understanding of the spiritual aspects of human consciousness was undertaken

by William James 85 years ago in The Varieties of Religious Experience (1902). The importance of studying spiritual - awareness from a sociological perspective is also suggested in the classical works of Durkheim (1915) and Weber (1930). In addition, Carl Jung (1933, 1968, 1969, 1984) , after making his own cross cultural observations, developed his theories of Analytical or Depth psychology around the notion of a universal spiritual energy. *Conscious awareness of this spiritual source was a crucial step , in Jung's thinking, toward balancing the human psyche.* Jan Bauer (1982) has broadened Jung's theory to include the problem of alcoholism, especially as it affects women. Jungian theory will provide the conceptual framework for the development of this research and I will explain its fundamental aspects in the next section of this paper. Despite this early emphasis by James, Durkheim, Weber and Jung, spirituality has rarely been a research topic.

A primary problem with research in the area of spirituality, a problem we will return to often as this study unfolds, is definitional. How do you define something that is not seen directly but may be felt, that has been acknowledged for ages but remains unmeasured? May (1987) warns "spiritual explorers" that attempts to understand, objectify, delimit or tap the power of the spirit are doomed to fall into the "ancient trap" of superstition . Since, according to May, the nature and source of the spirit is always mysterious; "only *images* [italics in original] of spiritual reality can be mastered; the real thing constantly eludes capture" (p. 34). *These warnings notwithstanding, I believe spirituality, as a subjective experience, is measurable.* A few definitions do seem to be in order and are offered below not as a list that will satisfy everyone but as a point of departure in understanding the nature and scope of spirituality.

Webster's Unabridged Dictionary (1983) takes up nearly a full page trying to define spirit and its derivative words, brief excerpts follow:

Spirit, n. [From the Latin *Spiritus* , breath, courage vigor, the soul life. . .

1. (a) the life principle. . . (b) the soul
2. The thinking, motivating, feeling part of man, often as distinguished from the body; mind; intelligence.
3. [also S-] life, will,consciousness, thought, etc., regarded as separate from matter. . .

Spirituality, n. . . .

1. spiritual nature, character, or quality; spiritual-mindedness: opposed to *worldliness, sensuality* (pp.1750-51).

It is this noun, spirituality, that we are focusing on. However, throughout this paper I may also, in an effort to emphasize the importance of spirituality being brought to consciousness, use the phrase "spiritual - awareness". Spirtitual awareness is found at the sensory level of consciousness and not necessarily acted out behaviorally . This experience may be described as "mystical " or "unitary" . But , spiritual awareness, is not to be confused with the revival -generated, mass -enthusiasm, "expressive", religious behaviors like glossolalia or the "speaking in tongues" behaviors of Pentacostal Holiness groups.

A "*mystical longing for a connection* " is a facet of spirituality that finds reinforcement in the 12 steps of Alcoholics Anonymous. This "longing for connection" may also be part of a set of beliefs or attitudes toward life which are similar to Batson's (1982) concept of "Quest" in the sense of an honest, open-minded search for answers to existential questions. Keller (1983) and McDaniel (1986) have described another aspect of human behavior, hopefully measurable within the framework of spirituality, as the intuitive sensitivity of someone to "feel for the organism" with an *inward openness toward the world.* In addition, *the concept of spirituality seems to combine a conventional*

inclination toward belief in a higher power with life experiences, which are best described by Hood (1975) as mystical.

"Being Religious"- part but not all of Spiritual Awareness.

How does "spiritual awareness" differ from religion? To respond let's first briefly look at the definition of religion:

Religion-n. [from Latin *religio (-onis)*, religion, piety, conscientiousness, scrupulousness, from *religare*, to bind back; *re-*, and *iligare*, to bind, to bind together.]

1. Belief in a divine or super human power or powers to be obeyed and worshipped as the creator(s) and ruler(s) of the universe.
2. Expression of this belief in conduct and ritual.
3. (a) any specific system of belief, worship, conduct, etc., often involving a code of ethics and a philosophy; as, the Christian *religion*, the Buddhist *religion*, etc.; (Websters Unabridged Dictionary ,1983)

Batson (1982) building upon the work of Gordon Allport (1966,1967) makes a strong contribution by expanding the concept of "being religious" to include three different aspects, or *"orientations"*, to religion:

Religion as Means -

This orientation is primarily defined by the Allport and Ross Extrinsic scale. Extrinsic religiosity is typified by the businessman who goes to church because church is a good place to make connections with people who may buy his product or services. As Batson quotes Allport " . . . extrinsic religious orientation . . . is strictly utilitarian: useful for the self in granting safety, social standing, solace, and endorsement of one's chosen way of life" (p.140).

Religion as End -

As Batson quotes Allport " . . . the intrinsic form of religious sentiment regards faith as a supreme value in its own right . . . a religious sentiment of this sort floods the whole life with motivation and meaning. (p.140) . . . Other needs, strong as they may be, are regarded as of less ultimate significance, and they are, so far as possible, brought into harmony with religious beliefs and prescriptions. Having embraced a creed the individual endeavours to internalize it and follow it fully"(p.144). Batson refers to other studies that find Intrinsic religiosity positively correlated with "frequency of attendance at worship service. . . personal importance of religion . . . and belief that Jesus Christ, is the son of the Living God" (p.146). Batson concludes that Allports Intrinsic scale "probably measures intense, religious devotion to orthodox religious beliefs and practices" (p.147).

Religion as Quest -

Finally, Batson makes his contribution with the concept and measurement of "Quest". In contrast to the Extrinsic, religion as a means, businessman or the Intrinsic, religion as an end, orthodox preacher, Batson offers Siddhartha, Malcolm X and Mahatma Gandhi as examples of "religion as Quest". Batson sees as central to this religious orientation an individuals drive to pursue existential questions.

A measure of spiritual awareness will probably be empirically related to some, perhaps even moderate, degree with Batson's three religious orientations. The spiritually aware person may certainly be a member of a church but close mindedness and orthodox religious practices would not be expected. The experience leading to spiritual awareness would tend to broaden the conscious belief in the possibility of other than orthodox religious explanations. Hence a spiritually aware person wouldn't necessarily have need

to cling to a narrow orthodox world view (cf Hood, 1976, 1979). As for "Quest", this search for meaning could apply to many but the *experience* of a spiritual unifying dimension *is different than the purposeful search or "quest"*. Spiritual Awareness may indeed be preceded by an open minded orientation like "Quest" but, as reported by many recovering alcoholics, it may just as well be preceded by "being sick and tired of being sick and tired, having nothing left to lose or hitting bottom". This situation of feeling as if there is nothing left to lose just prior to a spiritual awakening may be analogous to the anticipatory response set of low stress in high stress situations that preceded high scores on a measure of mystical experience (Hood,1977). In any event, *how the experience is individually interpreted is probably a function of religious training.*

Morris and Hood (1980) found, in their study of reports of mystical experience by 40 Baptists, compared with 40 others, who indicated no religious preference, "Nones", people's interpretation of mystical experience is within the context of personal religious membership. These authors also developed a "Unitary" scale referring to an explanation of mystical experience in terms of a union with all things and an "inner subjectivity to all things" (p.729). This "unitary" factor is similar to the "primitive" spiritual awareness mentioned earlier. They concluded that "an experience of unity may be a major characteristic of both religious and non religious mysticism" (p.730).

One recent attempt to define the dimensions of religiosity was conducted by Cornwall, Albrecht, Cunningham and Pitcher (1986). After an exhaustive literature review they chose to exclude "the experiential or religious experience dimensions . . . because they can be conceptualized as either an antecedent or a consequence of religiosity, but are not indicators of religiosity per se" (p. 231).

In sum, Spiritual awareness is conceptualized as an experiential phenomenon that may or may not be interpreted in religious terms depending

upon the individual's religious training and personal beliefs. While spiritual awareness may surely lead to, or be precipitated by, religiosity, the two concepts probably overlap but are not necessarily one and the same. Therefore, *Spiritual awareness transcends religiosity.*

Spirituality -a selective review.

Some may find it difficult to relate to the word "spirituality". This difficulty may relate to ones upbringing or professional training. A brief selective review of literature on spirituality will hopefully clarify and expand upon the earlier definition of spirituality.

The Old Testament provides an account of the origins of spirit: " And he blew into his nostrils a soul of living spirit" (Genesis 2:7). As Twerski (1986) explains:

> Spirituality gives man's being a purpose. Man is not a biological accident limited to self-gratification, but a being with a mission, one whose existence is goal directed. The distinctive feature of humanity is thus spirituality rather than intellect (p.50).

In the New Testament, Paul describes some of the rewards that might be expected from leading a spiritual life: "But the Spirits fruition is love, joy, peace, forbearance, kindness, generosity, fidelity, gentleness, self-control. There is no law against these"(Galatians 5: 22-23). Despite their New Testament origins and arguably Christian limitations (these "fruits" are found abundantly in Twerski's examples of joyous yet mystical Jewish Chassidim, in nearly all other religions, and are inherent in non religious belief systems such as humanism), one might be tempted to develop a scale to quantify these "fruits" of a spiritual life. As Ellison (1983) observes such a scale would measure a kind of spiritual "maturity" since it presumably takes some time for these spiritual fruits to ripen. It

is also possible that these "fruits of the spirit" may mature in those who perceive themselves as atheists or agnostics but this remains to be seen.

Some correlates to spirituality may be found in "quality of life" research. One clue suggesting that an aspect of spiritual - awareness may be related to life satisfaction exists in the work of Hadaway and Roof (1979). After reanalyzing a national Quality of Life survey done by Campbell et al. (1976), they found that the importance of faith was one of the strongest predictors of the feeling that life was worthwhile.

Lately, spirituality has been found to be the primary trait distinguishing those who were able to successfully adjust to "mid-career malaise". Douglas La Bier studied over 100 professionals who were deeply unhappy with their jobs (Kolata, 1988). About half his sample resigned themselves to their unhappy situation but the other half displayed an " almost spiritual , mystical kind of longing for a connection to a larger world." An appreciation for this mystical element in spirituality may have been perceived by William James more than 80 years ago.

James (1902) was deeply concerned with expanding the view of religion. For James curing a "sick soul" through "rebirth" was a religious phenomenon best explained through an exploration of mystical experience. James and latter Stace (1960) both contend that, while mystical states may not be perceived by the rational "non-mystical " majority, the truth is that mystics do sense other realities. These mystical states are usually so strong that they are in James' (1985) words "authoritative over those who have them. They have been 'there', and know. It is vain for rationalism to grumble about this. If the mystical truth that comes to a man proves to be a force that he can live by, what mandate have we of the majority to order him to live in another way?"(p.335/p. 422 in original 1902 edition). In addition Roy (1979) ventures into a cross-cultural *argument to*

include mysticism as a basic element of spiritual health.

To focus these lines of thought, consider the literature of Alcoholics Anonymous; it is full of examples of extraordinary, ineffable experiences being the turning point marking the transition from despair to recovery. A classic example is Bill's experience of "a great white light that filled the room, then he suddenly seemed caught up in a kind of joy, an ecstasy such as he would never find words to describe" (Thomsen 1975, p.223). Bill, and scores of AA members since, testify that this ineffable experience, or one like it, marked the turning point in their recovery.

In a similar vein, Whitfield (1984a,1984b,1984c) makes clear that alcoholism is a "spiritual illness, a disease of the soul" (1984a p.17). To build his thesis he refers frequently to works on AA, Humanistic Psychology, Holistic Medicine, Neurolinguistic Programming, Zen Buddhism, Transpersonal Psychotherapy, Meditation, Split Brain research, Mysticism, and the works of James (1902) and Jung (in particular the letter Jung wrote to AA cofounder Bill W. which is reprinted in appendix D). Whitefield's intent is to develop a "transpersonal, i.e. spiritual , psychologic and therapeutic approach to helping both the person and the family with alcoholism . . ."(1984a p.36). Whitfield makes a powerful, if not exhaustive, case for applying his therapeutic approach to the study of alcoholism and spirituality. In his conclusion he states emphatically that "spirituality plays a major role in recovery. Indeed . . .recovery is spirituality" (1984c p.38). While Whitfield's approach could easily provide theoretical support for this study, a more elegant, parsimonious theory to explain the role of spirituality in recovery derives from the work of Jung.

Jungian Analytical Psychology: This study's theoretical base

The central thesis to all Jung's work is that man, to be whole and healthy,

must strike a psychic balance. Where there is great good there must, of necessity, be great evil. Recognition and then suppression of uncivilized instinctual urges is the mark of a healthy balance whereas repression of those natural instincts from consciousness will only lead to illness. The pathway between conscious and unconscious between the world within and without lies through development of the "self". Development of the self transcends a mere cure for mental illness; it becomes, for Jung, an ethical challenge to find meaning in life.

To strike this balance, to broaden consciousness by connecting with the unconscious, is an enlightening, up-lifting, spiritual act. This transformation from man ruled by base instinct to man transcending to a higher order is the basis of the worlds religious initiation ceremonies. Baptism, circumcision, and Tantric Yoga are all analogous in the sense of separating man from the world of nature and connecting him with the world of the spirit. And *this spiritual element is what links the theory of Carl Jung to this dissertation. People with an awareness of the mystical, spiritual, unconscious elements in life would, according to Jung, be relatively more healthy and whole than others. If Jung is correct, people recovering from alcoholism should vary in their recovery in relation to their spiritual - awareness.*

Now, an overview of Jung's work with emphasis on the healing role of spirituality seems in order. Perhaps, a good place to start would be to cite the stated purpose of Jung's efforts:

To relieve the isolation and confusion of modern man, to enable him to find his place in the great stream of life, to help him gain a wholeness which may knowingly and deliberately reunite his luminous conscious side with his dark unconscious side - this is the meaning and purpose of Jungian psychological guidance (Jacobi, 1968 p. 50).

Next, a grounding in some basic Jungian terminology and a perspective of his model of the mind will serve to visually reinforce the central role that spirituality plays in Jungian theory and define the terms encountered.

Diagram of the Jungian concept of Consciousness

The following diagram (Figure 1) provides a Jungian perspective of the human psyche. *It must not be viewed too literally though because, while each area is carefully delineated for clarity in the drawing, in reality the various zones of consciousness often overlap, the borders mix and mingle as the mind strives for balance. Likewise, the use of a pyramid design is not meant to imply that one zone of consciousness is necessarily "superior" to another.* Key to correctly perceiving this diagram is to notice the spiritual energy surrounding all zones of consciousness. Following the diagram are definitions of the terms:

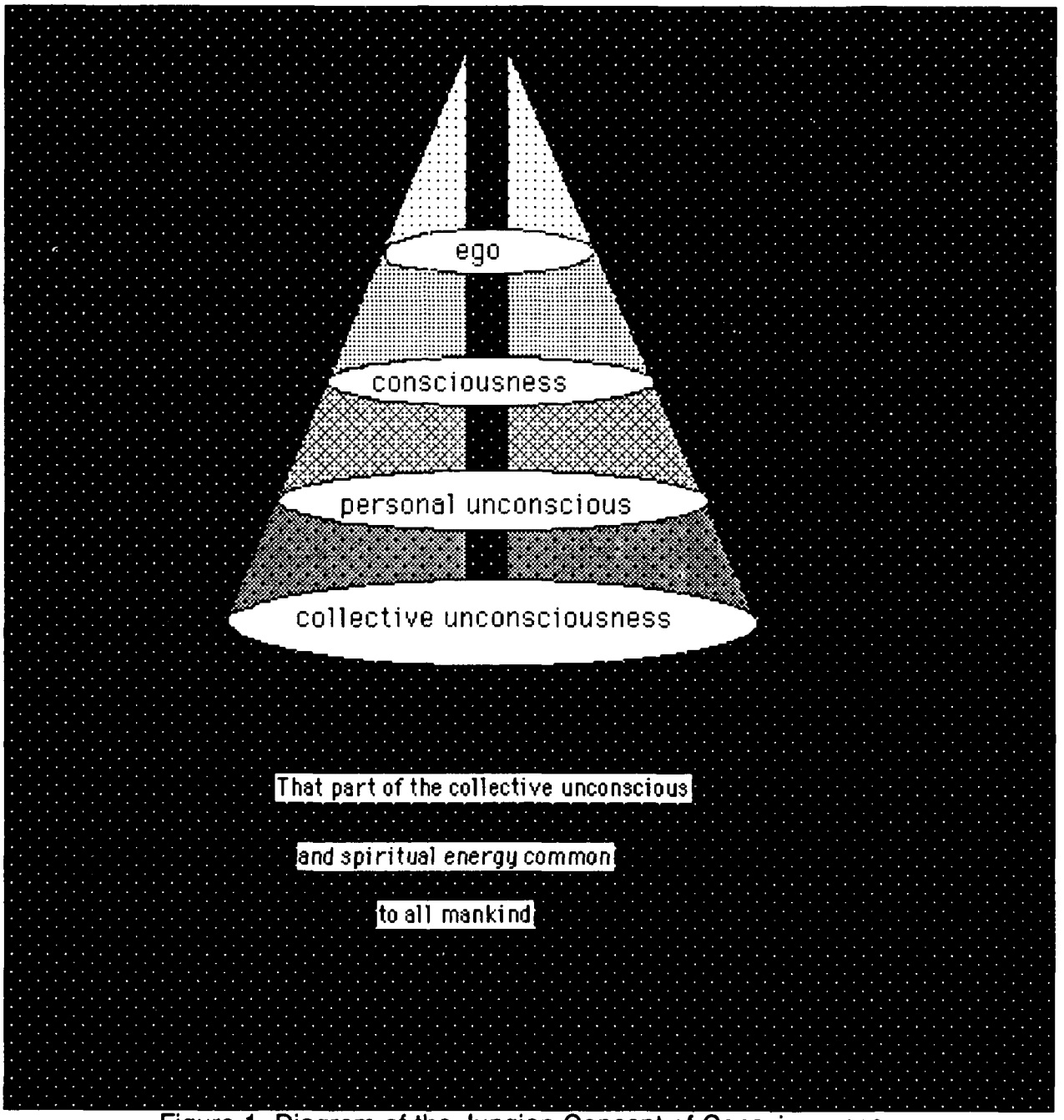


Figure 1. Diagram of the Jungian Concept of Consciousness

The concept of "Ego" is often expanded by Jung with the term "Persona". The Persona is that part of the ego turned toward the outside world. Jacobi (1968) describes the Persona as ". . . a compromise between individual and society as to what a man should appear to be". She goes on to expand upon

the basic elements of the Persona:

1. The Ego ideal or wish image
2. The environment's view of the ideal person
3. The person's physical and psychic limitations on these ideals.

It can be seen that this "Persona" would include the Freudian concept of superego but it differs in that it includes not only the do's and don'ts from the environment that have been incorporated within the psyche but also those which are constantly flooding the individual from outside his psychic structure. Contemporary examples of these external pressures might include peer pressure and advertising.

In the area of "Consciousness" are the senses, feelings of emotion, intuition and thinking. Jung has a theory of personality types that correspond to these basic elements of consciousness. The Meyers - Briggs personality inventories in popular use today strongly resemble these Jungian personality constructs.

The "Personal Unconscious" includes forgotten and repressed material. This psychic zone would also include the Freudian notion of a "preconscious" subliminal area. Common "daydreams" and personal memories fit in this area of personal unconscious. Another deeper aspect of the personal unconscious bordering on the collective unconscious is evidenced by the hypnotic trance and called "subconscious".

The "Impersonal or Collective Unconscious" Jung has called the objective Psyche because it consists of primal material uninfluenced by the logic of consciousness. This is the area that may "irrupt (sic)" into consciousness in a "flash of creativity" or, perhaps, a "psychotic break". It's the area of the mind housing the "archetypes" of human experience (see the story of Brother Klaus, below, for an example of such an "irruption").

> . . . for Jung the archetypes taken as a whole represent the sum of the latent potentialities of the human psyche - a vast store of ancestral knowledge about the profound relations between God, man, and the cosmos. To open up this store in one's own psyche, to awaken it to new life and integrate it with consciousness, means nothing less than to save the individual from his isolation and gather him into the eternal cosmic process . . . The archetype as the primal source of all human experience lies in the unconscious, whence it reaches into our lives. Thus it becomes imperative to resolve its projections, to raise its contents to consciousness (Jacobi, 1968, p. 49).

Part and parcel of the collective unconscious is the spiritual or "Central" energy common to all mankind. Jacobi (1968) quotes Jung saying: "The collective unconscious contains the whole spiritual heritage of mankind's evolution born anew in the brain structure of every individual (p. 34-35). Connecting with, or becoming aware of, this spiritual force can be achieved in a variety of religious, dietary, drug related, psychoanalytic and hypnotic ways. No one path is necessarily superior to another. However, it was with his techniques of Dream Analysis, skillful use of art, and hypnosis that *Jung pricked an awareness of our collective spirituality toward higher consciousness.*

His therapeutic approach focused on the "here and now" situation of the individual client as the dominant factors in any interpretation. And, he warned against any interpretation of symbols found in dreams without a clear understanding of the personal conscious circumstances of the person who reported experiencing them. This Jungian focus on the client's situation seems to have been expanded upon by one of his American peers. The popular "humanistic" "Client Centered Therapy" of Carl Rogers (1951, 1961, 1965) seems to reflect Jung's focus on the world from the client's point of view.

Jung, like so many other thinkers of his day (see for example, the

prophetic Social Gospel of Walter Rauschenbusch (1922)), was driven to write, in great part, by a "social awakening". In "Modern Man in Search of A Soul" Jung (1933) seems to be largely reacting to the horrifying events of the First World War and struggling to reconcile mans "inhumanity to man". *He saw "modern man"*, psychically ill from a focus on material, worldly possessions, *driven* by an imbalanced psyche *to reconnect with his unconscious roots* through any means at his disposal (e.g. eastern religions, psychology and even drugs).

Jung recognized the contributions of his peers, in particular the applicability of Freudian theory to cases in which sexuality was considered to be the prime factor in the disorder or, if "the will to power" was causing a disruption in the person's life, he believed the Adlerian approach might be more useful. But, *the essential part of his theory which discriminates it from others is his view that man's spiritual need is innate, inborn at the deepest, most original level of human nature.* Indeed the concepts of spirit and nature may be seen, in a Jungian sense, to be both the same and opposites (or **and** either), with psychic energy ebbing and flowing back and forth between them in a pattern like that of the oriental notion of Yin and Yang. This dualistic concept of spirit and nature being both the same and opposite may sound contradictory, illogical and unscientific until one considers that modern physicists use the apparently contradictory wave and particle theories to explain the same phenomenon - light.

In contrast to Freud and Adler, Jung's approach to therapy is not to seek the "root cause" of the problem but rather to help shape the psyche so that a "final outcome" or balance can be achieved. As Jacobi (1968) argues:

> . . . causality is only one principle, and psychology cannot be exhausted by causal methods only, because the mind lives by aims as well. . .

> Freud's method is reductive, while Jung's is prospective. Freud treats the material analytically, resolving the present into the past, Jung *synthetically,* (italics in original) building toward the future from the present situation by attempting to create relations between conscious and unconscious, i.e. between pairs of psychic opposites, in order to provide the personality with a foundation on which a lasting psychic balance can be built (pp. 66-67).

In addition, Jung views human conflicts within the context of the here and now reality of the client rather than trying (as a Freudian might) to seek the significance of the conflict at the time of its origin. For example the resolution of a "mother complex" for a woman of 40 will vary markedly from a woman of 18 though the source of the conflict may be found in the same early childhood experience. Jung does not see a single instinctual factor as the prime contributor to conflict; he sees conflict as a symptom of an imbalance between the collective unconscious and the personal conscious. Jung views the client holistically and sees the slightest conflict as evidence of a disharmony in the psychic totality. The *unconscious is viewed by Jung (and many modern hypnotherapists including, Erikson,M.H. 1980; Citrenbaum, King & Cohen, 1985) as <u>the</u> primary source of creative healing.*

<u>Expanding Jung's Theory to encompass Alcoholism.</u>

Despite the idea of multiple types and etiologies of alcoholism (cf. Jellineck, 1962; Sundgren et al.,1986; Emrick,1974; Caetano 1985, 1987, 1988; Conrad and Schneider,1980; Edwards,1982), the disease concept of alcoholism is widely viewed as the preeminent model with "loss of control" perceived as its central characteristic. Consequently, what has troubled so many thinkers in the field of alcoholism, what has been the main stumble stone, is how to explain the fact that some alcoholics, after treatment, appear able to

drink with few problems while some require abstention to remain problem free. In addition, spontaneous remission in untreated alcoholics is unexplained. A Jungian view may help resolve these issues.

If connection with unconscious spiritual energies (spiritual awareness) is, as Jung suggests, a basic human drive, and if spiritual awareness leads to a more healthy psychic balance, then alcoholics who attain a connection may become more psychically balanced and have less need of alcohol. As Twerski (1984) points out, alcoholics may not only be physically dependent but they may emotionally rely on alcohol to medicate low self esteem. If alcohol alone were the problem it could be solved simply by abstaining. "But the problem isn't alcohol, it is alcoholism. It's the rotten miserable feeling you get when you don't drink, and it's so intolerable that you have to drink simply to survive" (p.20). The first step toward personality growth and freedom from this miserable self image is a release of conscious control - *surrender.*

> "Surrender is therefore not a one-time event, nor should it remain stagnant. Surrender must grow with one's personality growth. The First Step must be taken over and over again in the course of sobriety. If a person who has been sober in AA for fifteen years doesn't have a more profound sense of surrender than the year before, it's because he or she has remained stagnant and hasn't had any personality growth for a year" (p.73).

For some, AA, formal religion, the treatment experience or the shock of "hitting bottom" may help stimulate surrender and the process of bringing the unconscious spiritual energy to consciousness. For others it may "come in a flash" of enlightenment leading to a spontaneous remission . After the drive for spiritual connection is relatively satisfied some people may abstain. Others, not physiologically addicted, may continue to use alcohol, or other drugs, as an

occasional spiritual "pump primer" in a social recreational mode. Some of these may be seen post treatment as those who are in remission "drinking with no problems" but, unless spiritual awareness is skillfully brought to bear upon any underlying issues of low self esteem, any gains may eventually be sabotaged. Still others, not yet united through spiritual awareness, are driven by their physiological dependency to continue to drink problematically. Thus, Jungian theory may serve to explain remission from problematic drinking in general and the physiological theories may be used to explain why some require total abstention to free themselves from alcohol related problems.

When viewed in this way, alcoholism recovery can be seen to depend upon unlocking the unconscious path leading to a spiritual awakening. Once the path way becomes well trod the unconscious spiritual energies may be drawn upon for healing. How the individual responds to unconscious content revealed is another variable that will affect outcome.

Jung (1984) has written of Brother Klaus, a 15th century monk who one star lit night during his evening prayers 'had seen a piercing light resembling a human face. At the sight of it he feared that his heart would burst into little pieces. Overcome with terror, he instantly turned his face away and fell to the ground. And that was why his [Brother Klaus'] face was now terrible to others. Jung, after considering the probable mental attitudes of 15th century monks, concluded that Brother Klaus was so shattered by this vision because of the violent contrast it must have been to his concept of God as "summum bonum, Absolute Perfection" the highest good. Klaus, Jung surmised, spent years "of the most strenuous spiritual effort" trying to assimilate this vision into conscious understanding (p.228).

Half a thousand years later Jung, eastern philosophies, and less clearly the Muslim and Judeo-Christian ethics all see that good cannot exist without

evil. There is a constant ebb and flow, dialectic tension or balance, between the opposites of good and evil. For Jung these extremes are both found when connecting with the unconscious, all knowing, *"numen"*. In Greek mythology "numen", or "numina" in the plural, were presiding spirits.

Spiritual awareness, in short, may not be pretty. Face to face with both the sublime and the beastial in human nature, people have a number of responses. a) They may, like Brother Klaus, be repulsed. Unlike Klaus, they may never again seek spiritual awareness. Yet, driven for connection, they will remain in relatively anxious state of mind and, if alcoholic, continue to drink. b) They may, via insight from whatever source, grow accustomed, "balanced" in Jungian terms, to the presence of both good and evil, nurturance and sheer violence, mother and father, the eternal opposites that they find in the unconscious. In this case they may choose to abstain from alcohol. c) Drawn by the power of the unconscious they may continue to explore it via alcohol or other drugs or d) They may find other, non drug routes to keep connected with the spiritual. Thus Jungian theory provides us with a broad, inclusive, explanation for the role that spiritual awareness may play in alcohol use and remission.

Spiritual - Awareness and Alcoholism Recovery

Many have recognized the importance of spirituality in recovery from alcoholism and other drug abuse (Al-Anon, 1984; Alcoholics Anonymous, 1953, 1976; "Search for Spiritual" 1978; Ayse, 1982; Booth, 1982; Cutter & Cutter, 1987; Dick, 1982; Jourard, 1971; Kurtz, 1983; McKeon, 1983; Peck, 1978; Roessler, 1982; Rogan, 1986; Royce, 1981; Weil, 1973; Whitfield & Schreder, 1982). Whitfield (1984 a, b and c) expounded on the subject in journal articles. Jacobson, Ritter & Mueller (1977) did some preliminary work

on measuring another construct - Purpose in Life - in a small (N= 57) group of treated alcoholics. They concluded that "the concept of a Higher Power as embodied in the traditions of Alcoholics Anonymous may be open to empirical investigation" (p. 316). Despite all these works I have found no empirical studies exploring the relationship between measures of spirituality and abstention from alcohol. In light of this gap in knowledge a contribution may be made by applying modern research methods to questions regarding the relationship between spiritual aspects of human consciousness and recovery from alcoholism.

The measurement of spirituality with an alcohol abusing population has clinical implications. The issue of spirituality holds a key place in therapy as it relates to self esteem, self concept and responsibility for health. While medical and psychosocial models of treatment may dominate this field, "holistic" approaches, including the philosophy of Alcoholics Anonymous (1953,1976), rely heavily on a spiritual program of recovery. Professional alcoholism counselors often have difficulty in integrating spiritual concepts into their traditional psychotherapeutic approaches to alcoholism. The task of covering the subject of spirituality in alcohol treatment centers is usually allotted to a staff chaplain, visiting clergy, a Father Martin Film or Alcoholics Anonymous; clinical staff, with notable exceptions, when asked to address the topic of spirituality, seem to feel out of their element and unwilling to risk exploring the concept of spirituality as a universal healing force recognized by so many as central to recovery .

This tendency of clinicians to simultaneously pay lip service to spirituality while excluding spirituality from their clinical focus has been noted by others. Hall (1984) provided a six session group experience to certified alcoholism counselors. The purpose was to engage the counselors in discussion of the role

of spirituality in the recovery process and to examine ways that the alcoholic's personal faith or spiritual perceptions could be nurtured during treatment. Hall reports that counselors, while agreeing that there was a spiritual component to alcoholism, displayed ". . . intense ambivalence to consideration of faith . . . many were uneasy with the use of religious language or references of any sort and showed a distrust of the clergy and the trappings of organized religion" (p. 3369).

While no one questions the right of individual clinicians to hold their own personal religious views, the extent of hypocracy displayed by so many clinicians prompted the "Spiritual Director", Father Leo Booth, at San Pedro Peninsula Hospital to literally ". . . throw down the gauntlet and engage in a battle those administrators of Alcohol Treatment Centers who choose to ignore or simply 'tip their hat' in the direction of Spirituality within Treatment" (p.139). Booth (1984) goes on to declare that while profitable businesses advertise programs of spiritual recovery in their brochures:

> . . . little more than pious sentiments are expressed and 'nice' thoughts shared. The distinction between Spirituality and Religion is not explained. The dynamic tension and creativity surrounding the whole subject is rarely expounded or discussed. Often the patient leaves treatment without any real understanding or appreciation of what Spirituality can mean to him/her and its necessary connection with recovery (p. 139).

The essence of this ambivalence may lie in the unimaginative belief that spirituality can only be discussed in terms of religion. Booth (1984) warns that this is a dangerous approach which tends to play into the "born again" syndrome "where healing/cure is dependent on a particular belief and many patients are made to feel guilty, angry and unworthy. Thus Spirituality is discounted along with a particular brand of religiosity" (pp. 140-141).

The interactive relationship between a spiritual approach and medical/ psychosocial models is examined by Kohn (1984) . Kohn, citing the works of Bakan (1980) , Sandel & Alcorn (1980) and Golden (1981), makes a case for alcoholics as a group being dominantly influenced by the right hemispheres of their brains. In this way alcoholics could be viewed as people quite susceptible to spiritual (in contrast to logical/rational) world views. They may even use alcohol to anesthetize the left hemisphere in order to allow their creative right hemisphere freer rein. It may also follow that some who are over dominated by the left brain suffer from social isolation, rigid thought processes, emotional distance and consequent difficulties with interpersonal relationships. Alcohol, for these people, may be used as a social lubricant allowing a relaxation of obsessive-compulsive object based thinking and, as Kohn says, "permitting a relative increase in consciousness of more relational, right hemisphere, receptive spiritual experience" (p.256). For both of these groups, drinking serves the function (albeit temporary) of integrating both hemispheres into a functional whole. Until the person learns an alternative route to attain this balance he will be motivated to use alcohol. Kohn calls for the development of "a spiritual program that increases right-hemisphere experience while integrating it into an organized left-hemisphere system for integration with the objective world" (p.257).

Kohn's (1984) call for a program of spiritual treatment is intriguing but seems premature. Since no one has measured alcoholics on the spiritual dimension we have no way of knowing how they compare with other groups, what their specific spiritual strengths and weaknesses are or what might be the most receptive routes to addressing the concept of spirituality with this population. We do, however, have some clues about the spiritual beliefs alcoholics hold.

Foreman & Fassino (1987) report that a group of their students questioned 302 recovering alcoholics/other drug addicts in regard to their spiritual beliefs, 12 Step program involvement and contentment with life. Seventy-one percent of the sample were primarily addicted to alcohol. The sample was weighted toward those who had been abstinent for quite some time, 4.8 years on average. Eighty-three percent of this group were currently involved with AA/NA, attending an average of 15.3 meetings per month. While the study may suffer from selection bias and can't confidently be generalized to the wider alcoholic population, it still provides some valuable clues. On the measure of "contentment in life" some significant differences became apparent after the group was partitioned into high and low scoring sub groups. The high contentment people reported stronger belief that a loving but vengeful God responsive to prayer, exists, is interested in their lives and played a role in their recovery. While they don't believe that heaven, hell, or the devil exist, they do believe a relationship with God is important. They also indicate that their parents provided an adequate spiritual orientation. The high contentment group attended more AA meetings (17.4 vs 14.4 meetings per month), was slightly older (41.9 vs 38.2 years.) and was sober longer (5.88 vs 4.27 years.).

While only 40% of the alcoholics in the sample believed that "membership in organized religion is important", 85% agreed with the statement: "I have had a 'spiritual awakening' since coming into recovery" and 94% believed that a "relationship with God is important". *Thus it may be deduced that this group perceives a spiritual need and that, if this need is being met, it is largely met outside the net of membership in organized religion.* (For more in support of this notion that spiritual awareness may lead to, or at least be correlated with, dissatisfaction with organized religion, see Hood, 1976). Therefore, availability of a valid and reliable scale to measure spiritual

awareness could provide a valuable clinical contribution to the field by helping to assess the nature of a client's spiritual experiences .

For those of us already with feet in both the research and treatment camps, the best approach to alerting clinicians to the merits of research may well be in refining measures of spirituality into practical treatment tools. The current practice of pushing one approach to treatment above all others (A.A. for example), often leads to friction between client and staff. A reflection of this friction may be seen in the fact that the staff at Gateway Rehabilitation Program (the source of the sample for this study) have found it necessary to develop no fewer than three different treatment plans to help their clients overcome problems with the concept of spirituality. A tool, such as a spiritual awareness scale, could be used, differentially, to gauge the level of acceptance a client might have to spiritual approaches. For example, a client scoring low on a subscale of conventional religiosity but high on a more "mystical" subscale might initially respond much better to a cognitive therapy or even Jungian analysis than to the relatively orthodox spiritual approach of AA. Conversely, a client with high conventional religiosity scores could build a treatment plan around AA and other religious activities that would support this spiritual world view. The net result might be reflected in lower drop out and recidivism rates and higher client/worker satisfaction scores.

The notion of matching what the client believes will work with the therapy provided is not new. Indeed, it has been detailed at length by Erich Fromm (1941, 1947, 1955, 1964, 1968). Fromm described the matching process as "analyzing the system of man." Perhaps, a measure of spiritual awareness could become one of a number of special tools designed to help analyze the world view of clients. Such a tool could sidestep resistance by matching clients with the type of service they are most ready to understand, accept and in which

they would have the most faith.

The measurement of spirituality.

Efforts to measure spirituality begin, from a decidedly Judeo-Christian point of view, with the works of Moberg (1967,1971, 1979, 1980,1984). Moberg viewed what he called "spiritual well-being" (SWB) as a central concern of the major religions of the world and began developing social indicators of spiritual well-being for quality of life research . The National Interfaith Coalition on Aging (1975) offers the following, rather imprecise, definition: "Spiritual well being is the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness" (p.1). While this definition suffers from a sense of subjective vagueness that would worry most empirically trained investigators, Ellison (1983) notes that the suggestion of both religious and psycho-social components is in line with the theoretical work of Moberg (1979 b) as well as the work of Blakie & Kelsen (1979). According to Ellison (1983 p. 331), Moberg (1971) visualizes SWB in two dimensions, with a vertical line representing "our sense of well being in relation to God" and a horizontal line indicating a non religious existential sense of purpose in life and life satisfaction. Moberg's 82 item SWB questionnaire was found to correlate significantly with other measures of Christian Faith, Self-Satisfaction, Personal Piety, Elitism and Religious Involvement. Because Moberg's questionnaire is reflective of exclusively Judeo-Christian spirituality it is not suitable for use in this study.

A review of the literature and personal communication with Moberg (15 Sept. 1989) reveals there is currently only a well researched instrument available in the English language which attempts to measure spiritual well-being in a non - sectarian way. The "Spiritual Well Being" scale, initiated by

Paloutzian and Ellison (1979) and subsequently developed by Ellison (1983), appears to tap many existential aspects of spirituality.

Ellison perceives the SWB scale to be a valid and reliable instrument within the framework of general systems approach to an understanding of human development. Correlations between events perceived in childhood such as family togetherness and quality of parent-child relationships and the later measurement of spiritual well-being serves to underscore Ellison's view of man as a product of the interrelationships among a variety of systems and subsystems. As Ellison(1983) says:

> "Each subsystem affects and is affected by the others, though none can be totally reduced to the other. At a minimum human beings are biological, cognitive, interpersonal, emotional and spiritual beings. As a result, our sense of spiritual well-being is in part a reflection of those other dimensions. (p.336-7)

Ellison's utilization of this essentially general systems theory approach is appealing but his scale doesn't seem to provide an equally general measure of spirituality. Several religious variables have been found to relate to spiritual well-being. Intrinsic religious orientation was highly correlated with spiritual well-being scores. "Extrinsic" religious orientation was somewhat less positively related with spiritual well-being. For our purposes, having spiritual well-being highly correlated with an intrinsic religious orientation won't do, especially since we are concerned with finding a more universal, non-sectarian measure of spirituality sensitive to the mystical quest for spiritual connectedness in a population that may not be orthodox in their religious beliefs.

In sum, Ellison's spiritual well-being scale appears to suffer in terms of its validity as a measure beyond the context of an intrinsically religious world view mixed, in some measure, with an existential satisfaction with life. Essentially the spiritual well-being scale is a dual measure of those two

constructs; as such it is fine. However, as a single tool to measure the spirituality of people, like alcoholics, who may not view their lives in terms of orthodox religious beliefs and practices, Ellison's scale may under report spiritual awareness.

In light of the above, an attempt to measure spirituality was undertaken by Brewster (1987a) with a sample drawn from a senior citizen's center. After controlling for possible extraneous variables such as socio economic status, health, and religiosity, a 12 item scale of "Spiritual-Awareness" was found to correlate, though not quite to a statistically significant degree ($p=.058$), with life satisfaction. While the scale displayed a nearly satisfactory level of internal consistency (Alpha = .74), the lack of evidence of validity was cause for concern when considering using the scale in this current research project.

Expanding the concept of Spiritual Well-Being to Spiritual Awareness.

If spirituality is more than a measure of religiosity and life satisfaction, then a variant of the spiritual well-being scale is in order. How to weigh the components is problematic and will probably prove more complex than simply adding two subscales the way Ellison does. The best solution is probably along the lines suggested by Batson & Ventis (1985) when discussing their measures of religious orientation; recognize that there is no black and white answer concerning which approach to spirituality is "best" and attempt "to understand the psychological and social correlates - positive and negative- of each dimension. . . "(p.403). Since our specific concern lies with alcohol and other drug abusers, people who are by definition in search of an altered state of consciousness, it follows that specific aspects of spiritual experience relevant to them, and perhaps relevant to their recovery from dependence upon drugs, are the mystical aspects of spirituality.

Another spiritual element relevant to recovery is the concept of freedom. The role of Freedom in spirituality is regularly taught by Dr. Abraham Twerski to groups of recovering alcohol and other drug addicts. While Twerski's background is in Old Testament and new psychiatry, this concept of freedom as something derived from spiritual awareness and used in a disciplined way is also characteristic of a variety of New Testament theologians.

Beginning with the story of Joseph who forsook ancient Jewish law when he did not stone, or at least divorce, his betrothed, and pregnant, Mary, Christianity is full of an emphasis on freedom of choice. Paul's letter to the Galatians urging them to be "guided by the Spirit" (Galatians 5:18) is an exercise acknowledging the new role spiritual awareness played in choosing freedom over blind adherence to law. The "New" in New Testament is, in a nutshell, the concept of freedom of choice to either fulfill God's purposes or willfully pursue one's own goals. In the New Testament God invites man but man may freely choose to either accept or reject God. So, a measure of a sense of freedom may be another part of spiritual awareness in recovery.

Another measure, previously alluded to, might be derived from Paul's letter to the Galatians (5:22-23) in which he listed the "fruits of the spirit". If Paul was correct someone who was spiritually aware should strongly perceive the presence of these "fruits".

In sum, prior efforts to measure spirituality have either restricted themselves to an exclusively Judeo-Christian focus (Moberg), wound up measuring a blend of the conventional religious aspects of spiritual awareness and life satisfaction (Ellison) or lacked evidence of validity (Brewster). With the shortcomings of these earlier efforts in mind, a new measure of spiritual awareness will be developed for this study. Based upon the clues offered by cross cultural research, the reports of many recovering alcoholics, the lore of

Alcoholics Anonymous and Jungian theory, *I suspect that spiritual - awareness covaries with and, due to its universal transcendent character, explains more of the variance in recovery from alcoholism than mere religiosity alone.*

Statement of Hypotheses.

This research is mainly focused on the relationship between spiritual awareness and recovery from alcoholism. The central hypothesis is:

The higher the spiritual - awareness of a recovering alcoholic, the better will be measures of recovery from alcoholism.

This positive relationship may be expected based upon the theory of Jung. Also, the anecdotal suggestions from AA literature (Al-Anon 1984, Alcoholics Anonymous 1953,1976, "Search for Spiritual" 1978) strongly imply that a spiritual awakening is a common experience in recovery. In addition, the works of other authors (Ayse, 1982; Booth, 1982; Cutter & Cutter, 1987; Dick, 1982; Jourard, 1971; Kurtz, 1983; McKeon, 1983; Peck, 1978; Roessler, 1982; Rogan, 1986; Royce, 1981; Weil, 1973; Whitfield & Schreder, 1982; Whitfield, 1984 a, b and c and the exploratory survey work of Foreman & Fassino,1987 and their students, at Alvernia College), all can be interpreted to support the idea that spiritual - awareness, with, or in some cases without, AA involvement, will correlate with recovery from alcoholism.

Conceptual Model follows (Figure 2):

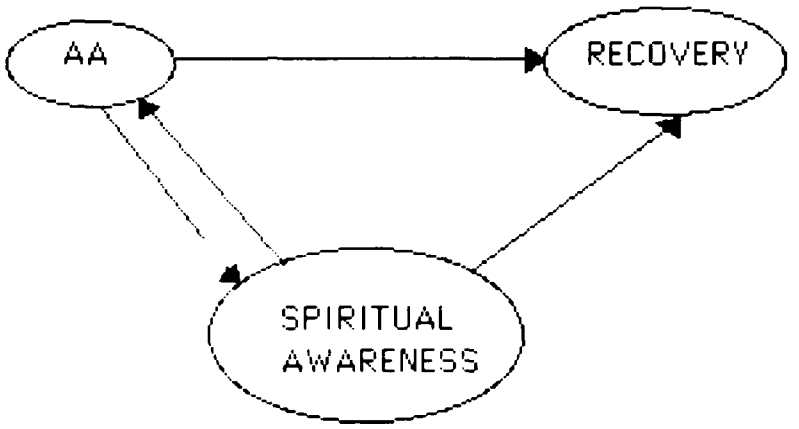


Figure 2. Spirituality to Recovery From Alcoholism Model

The relationship between spirituality and recovery will be confounded by AA in this one shot cross sectional study (see Figure 2). Additional questions will be included directed toward understanding if AA ---> Spiritual Awareness ---> Recovery or, Spiritual Awareness ---> AA ---> Recovery is the more plausible process. Several questions (described in the Method section) have been constructed to determine the time ordering of first exposure to AA and first spiritual experience respectively. Additional data will help clarify the link between AA and Spirituality. In addition, after controlling for AA involvement, an evaluation can be made of how much Spiritual Awareness "uniquely" accounts for variance in recovery .

Socio-demographic background variables such as age, income, marital status have been included as control variables because they seem to have been relevant to recovery in previous research (as noted in the lit review). Religious preference has also been noted in previous research as a significant

factor and will be measured.

Method

This research will be a retrospective cross-sectional survey of clients who have completed the program from one to four years ago. As such, it will provide us with a descriptive "snapshot" of a random sample of alcoholics, post treatment. The use of self reports by alcoholics is controversial (Fuller,1988; Fuller et al. 1988). However, many prominent researchers (Babor et al. 1987; O'Farrell,1984; O'Farrell & Maisto, 1987; Polich,et al. 1981; Polich, 1982; Ridley & Kordinak, 1988; Sobell et al. 1988) indicate that self reports can be a valid and reliable method suitable for evaluating outcome where abstinence is a goal or when the *precise* amount of alcohol consumed post treatment is not critical.

Sampling Procedure

Respondents will be randomly selected from a population of alcoholics who completed a standard 28 day inpatient treatment program between January 1984 and January 1988 at Gateway Rehabilitation Center in Aliquippa, Pennsylvania. This selection process, over a four year span, allows for an exploration of the idea that both spirituality and recovery might increase over time post treatment. The program's staffing pattern appears representative of typical inpatient alcoholism treatment programs, with a blend of medical director, professionals in the fields nursing, psychology and social work and para professional "recovering" staff. The treatment approach is also similar to other programs, with heavy emphasis on Alcoholics Anonymous along with therapeutic community and group support.

The typical Gateway client reflects, in many ways, the typical AA participant (c.f. Alcoholics Anonymous, 1987). Since 1974 the average age has

declined from 45 to 34 years and the proportion of women in treatment has risen to about 30%. Gateway clients come from all over the U.S. but most are from Ohio, West Virginia and Allegheny County, Pennsylvania.

The size of client population at Gateway has remained fairly consistent, averaging 1,282 clients per year over the past four years. For 98% precision or better, a sample of at least 209, or 4.2% of the universe, for this size population will be needed (Slonim, 1960). This approximation of precision is crude because many factors, including heterogeneity of the sample, can impact on the ability to safely generalize to a greater population.

Since we are relying on mail survey responses, we had to over-sample initially to be sure we had enough. Mail surveys of this length only get about 60% return rate (Dillman, 1978 p.56), so we strived for an initial mailing of about 400 (400 x .60 = 240). This allowed for some unusable responses and a slight "fudge" factor for less than average return rate. To enhance the likely rate of return, the survey carried a cover letter signed by the Founder/Medical Director and the Chief Executive Officer of the program. Respondents probably recall these two doctors, hold them in high esteem, and therefore were expected to comply with their request to participate in the research.

Only about 70% of Gateway clients were primarily diagnosed as alcoholic, so a particular problem was to ensure that the sample included only alcoholic respondents. There were many reasons for this mix of different diagnoses, the main reason is that Gateway, like so many other drug treatment programs, recognizes that common clinical similarities cut across all drug addictions and there is little to be gained by artificially separating one addiction from another in terms of general program design and staffing patterns. In addition, third party payments are now available for a wide range of addictive disorders. However, the present study does narrowly focus on alcoholism, so

steps must be taken to ensure that only alcoholics are sampled. Therefore, the sampling procedure was:

1. Computer sort population by type of discharge and select all regular discharges so population has received full GW treatment.

2. Computer sort by type of drug used and select all with Alcohol as the primary drug of abuse. Use of the computer to screen for alcohol as the primary drug tended to weed other drug abusers out of the sample but it did not assure us that the sample was all diagnosed alcoholic.

3. Match this list with the list of current mailing addresses. Select all that match. This step necessarily biased the sample in favor of more stable respondents.

4. In order to allow for a final screening of records that were all are diagnosed alcoholic, we "over-sampled" by randomly drawing 100 more records than we needed.

Select every nth record:

$$nth = \frac{\text{\# of records with up to date addresses}}{500}$$

5. The researcher physically screened the discharge summary to select only those with primary diagnoses of Alcohol Abuse or Alcohol Dependence. From this group of randomly selected respondents the first 400 with primary diagnoses of alcoholism were sent the questionnaire.

The Survey Instrument and Pretest

The mailed survey instrument (Appendix A) has been designed generally following the guidance offered by Dillman (1978). Limited in physical size to 13 pages and 139 items, the instrument is introduced to the subject by a personally addressed cover letter. The letter requests assistance in exploring the relationship between spiritual awareness and alcoholism, promises

confidentiality and is signed by both the Founder/Medical Director and the Chief Executive Officer of the program. Also enclosed is a pre-stamped envelope addressed to the researcher at the University of Pittsburgh; hopefully using the University address will reinforce the confidential, scientific, objective nature of the research. Clients routinely sign forms generally consenting to release of information as part of the admission process and are told by intake workers that much of the information is necessary for research purposes, so further informed consent is unnecessary.

The questionnaire is ordered logically. In order to encourage every subject to begin, the first few items on the survey ask for the respondents general attitude about and involvement in Alcoholics Anonymous. The idea is that even if subjects have never attended AA, because of diagnosis and treatment at Gateway, they will be able to respond to the initial questions and believe the survey has relevance. Subsequent sections cover the dependent variable of recovery, the independent variable of spiritual awareness and finally demographic variables. Generally, easier to answer items are placed earlier in the survey instrument to encourage completion.

The instrument was pre-tested with 57 people. Twenty-eight were recruited from a large meeting of inpatients at Gateway Rehabilitation Center. Sixteen were recruited from students and staff at the University of Pittsburgh. Eight were recruited in a Sunday school class at a Presbyterian Church and 5 were friends who agreed to fill out the survey instrument. All were told the purposes of the pretest and asked to identify any problems in clarity of the questions. Most of the responses were timed and ran from 11 to 22 minutes, with the Gateway group leaning toward the longer end of the spectrum, probably because they weren't able to skip the section on alcohol use. Based upon this pretest, minor modification to the instrument were made to enhance

clarity.

Frequency distributions were obtained on all variables, reliability analyses, and, exploratory principal axis factor analyses were performed on scaled items. Critical variables possessed acceptable variability and score distributions were generally symmetric and normal in form. Reliabilities will be reported in the subsequent presentation of each instrument.

Dependent Variable.

The dependent variable of recovery from alcoholism will have five measures. The first will be a simple dichotomous measure of the respondents "Drinking Status". The respondent will be asked "During the past year have you consumed any alcoholic beverages? If the response is "No" the respondent will be considered to be an abstainer and instructed to skip the next two sections dealing with drinking. If the response is "Yes" the respondent will be instructed to complete the next two sections of the instrument which measure frequency / amount of alcohol consumed and the extent of alcohol related problems respectively.

Much has already been done to develop measures of the frequency and amount of alcoholic beverages consumed. Hilton (1988) provides a good review of these efforts and studies the major consumption surveys within the context of consumption categories developed by Johnson et. al (1977). Based upon these earlier efforts the following simple, general, measure of light, moderate or heavy consumption was developed by the researcher and will be used in this study:

Thinking in terms of a 12 ounce can of beer, a 5 ounce glass of wine or a mixed drink with 1 shot of liquor in it as " a drink", about how many "drinks" have you consumed on **average per day over the past year**? (Circle number)

1 **less than 1/2 a drink per day**

2 **between 1/2 and 2 drinks per day**

3 **more than 2 drinks per day**

The third measure of recovery will be the 32 item diagnostic scale developed by Williams et al. (1987). Building upon Parker et al's (1983) work, Williams reanalysed the 1979 nationwide survey (N = 1773) sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (for detail on the NIAAA study see Clark & Midanek, 1982). Williams selected 32 self report items from the NIAAA study as multiple indicators of drinking problems. These 32 items were conceptually compatible with the Diagnostic and Statistical Manual of Mental Disorders, 3rd edition, American Psychiatric Association 1980 (DSM III) diagnostic approach. They then applied a Guttman type true /false scale in a reanalyses of the national data. Since questions on physiological tolerance to alcohol were not asked in the 1979 survey it was not possible to use the specific DSM III category of Alcohol Dependence. Likewise the specific DSM III subtypes of "Continuous" and "Episodic" patterns of pathological alcohol use were not able to be gleaned from the survey data.

However, Williams et. al (1987) were able to categorize the sample into Alcohol Abuse and Alcoholic diagnoses. Three items indicate withdrawal from alcohol, for example: "During the past year my hands shook a lot in the morning after drinking". Another 3 items cover symptoms of loss of control over drinking such as: "During the past year I sometimes kept drinking after I had promised myself not to". Five items indicate behavior "symptomatic" of alcohol abuse for example: "During the past year I have awakened the next day not being able to remember some of the things I had done while drinking". Seven items cover "severe" alcohol related problems such as: "During the past year I have lost a job, or nearly lost one, because of my drinking". Finally, 12 "moderately severe"

and 4 "less severe" items are included. The number of "True" responses in each set of items is summed. Combinations of summed scores may be used to suggest a diagnostic category for the respondent. For instance an "Alcoholic" diagnosis would be suggested if the respondent indicated that he had experienced at least one symptom of withdrawal from alcohol or at least one symptom of loss of control plus one other symptom of dependence, excluding withdrawal. In this research the number of "True" responses will simply be summed together forming a drinking "Severity Score". Pretest data showed these scale items had strong internal consistency, Alpha=.95.

The fourth measure to be used in this study will be a three way measure of recovery based upon responses to the dichotomous measure of "Drinking Status" and the Williams et. al (1987) 32 item diagnostic scale. Respondents will be categorized (1) drinking during the past year and experiencing severe alcohol related problems, (2) drinking during the past year and experiencing some less than severe alcohol related problems and (3) abstaining during the past year. This measure will be called "Recovery".

The fifth measure to be used in this study will also combine the "Drinking Status" dichotomous measure and the Williams' scale to split the respondents into two categories (1) Alcoholic (as defined by DSM III criteria) or (2) abstainer or drinker with less than alcoholic problems. This measure will be called "Alcoholic".

In addition to the five dependent measures described above and in line with the suggestions of Polich et al. (1981) after their four year follow-up study, measures of length of sobriety and total length of time spent in remission periods will be included for possible post dissertation analysis . These measures will be derived from the last few items on the survey instrument that simply ask: "What is your longest period of abstinence, without slips, since

leaving Gateway?_____Days; Estimate the total number of days you have abstained from alcohol since leaving Gateway. _____Days; Estimate the total number of days you have been drinking without experiencing alcohol related problems since leaving Gateway. _____Days. These items allow for more flexible measures of outcome that recognize the often fluid nature of recovery from alcoholism.

It should be noted that these measures, as well as the measure of frequency/ amount of alcohol consumed, by definition exclude abstainers from the analysis. If the proportion of respondents who abstain is high and the survey return rate is low there may be too small a group of drinkers to pursue meaningful analyses of these measures.

Independent and control variables.

Spiritual awareness is our conceptual independent variable. A good clue to developing measures of spiritual awareness came from factor analysis of the pretest data. When eight subscales, composed of 58 items related to both conventional religious interpretations of spirituality and mystical spiritual experiences were factor analyzed with pretest data the conceptualization of mystical spiritual awareness as an experience that is independent of conventional religious spiritual awareness was supported. A principal axis factor analysis with a varimax rotation was performed. Two principal factors had eigen values above 1.0. The scree test showed a distinct "elbow" at two components. The two factors accounted for 59.6% of common variance. Factor I may be seen as reflecting conventional religious spiritual awarenss. While Factor II reflects a nonsectarian mystical spiritual awareness. This analysis suggests that responses to these items are at a more complex level than a simple response set (see Table 1).

Table 1
Rotated Factor Matrix of all 8 subscales measuring spiritual awareness with Pretest Data

	Conventional Factor 1	Mystical Factor 2
Existential Well-Being	.61	.09
Religious Well-Being	.76	.19
Freedom	.75	.17
Possible Openness	.37	.76
Fruits of Spirit	.76	.38
Unitary Mysticism	-.01	.72
Noetic Mysticism	.24	.82
Religious Interpretation of Mystical Experience	.32	.63

The conventional religious spiritual awareness dimension .

Factor I was composed of four of the eight subscales, two subscales of Ellison's Spiritual-Well Being Scale and two other subscales that were designed for this research, the "Fruits of the Spirit" subscale and the "Freedom" subscale. The "Existential Well-Being" and "Religious Well-Being" subscales comprise Ellison's (1983) Spiritual Well-Being Scale. Composed of twenty questions this scale serves as a measure of intrinsic religiosity and existential life satisfaction. The scale consists of 20 items with responses measured on a six point Likert scale ranging from strongly disagree to strongly agree. Items are scored from 1 to 6, with higher numbers representing more well-being. Negatively worded items are scored in reverse. Ten of the items contain a reference to God and are summed to provide a Religious Well-Being (RWB)

score for example: "I believe that God loves me and cares about me". The other ten are summed to obtain an Existential Well-Being (EWB) score for example: "I feel that life is a positive experience". Finally, the two subscales are summed providing a measure of Spiritual Well-Being.

Ellison (1983) reports that factor analysis of data obtained from 206 students revealed the items clustered together "essentially as expected . . . all the religious items load on the RWB factor. . . the existential items . . . load onto two subfactors, one connoting life direction and one related to life satisfaction" (p.333). Ellison reports correlations ($r=.32$, $p<.001$) between the two subscales. He also reports correlations between the full Spiritual Well-Being scale and the Religious Well-Being subscale ($r=.90$) and the Existential Well=Being Scale ($r=.59$). Test-retest reliability coefficients were .93 (SWB), .96(RWB) and .86(EWB). It appears the scale has good internal consistency with coefficient alphas of .89 (SWB), .87 (RWB) and .78 (EWB).

Ellison (1983) reports a variety of correlational studies to support theoretical validity of his scale. For example, Spiritual Well-Being, Religious Well-Being and Existential Well-Being all correlated in a significantly negative direction with the UCLA Loneliness Scale ($p<.001$) and positively with a Purpose In Life Test ($P\leq.001$). Intrinsic Religious Orientation correlated positively to a significant degree ($r=.67$, $p<.001$)) with Spiritual Well-Being Scale and ($r=.79$, $p<.001$) with the Religious Well-Being subscale. Pretest data showed the Spiritual Well-Being Scale had good internal consistency, with Alpha=.91.

The third subscale composing Factor I was developed from the previous discussion of the role of "freedom" in New Testament theology. The 4 item subscale has a 6 point Likert scale ranging from strongly agree to strongly disagree. Items are scored from 1 to 6, with higher number representing a

stronger sense of freedom. An example of one of these "Freedom" items is: "Freedom to choose my direction in life is a value of extreme importance to me". Pretest of this 4 item subscale showed it to be modestly correlated (r=.47) with Existential Well-Being and (r=.60) with Religious Well Being.

The fourth subscale composing Factor I is derived from the New Testament work of Paul. Ten items were developed corresponding to the 10 "fruits of the spirit" observed by Paul. For example:"I feel serene or peaceful most of the time". A 6 point Likert scale ranging from strongly agree to strongly disagree was used and items were scored from 1 to 6, with higher number representing a stronger perception by the respondent of these "fruits". These items correlated (r=.49) with Existential Well-Being and (r=.65) with Religious Well Being.

After analysis it can be seen that Factor I is composed of items that, taken together, appear to reflect conventional religious spiritual awareness. The "Freedom" And "Fruit" subscales, as noted, correlate with Ellison's Religious Well-Being Scale which, itself, is a measure of intrinsic religiosity. In order to determine the unique effect of these two Factors, each measure will need to be controlled during hypothesis testing while the other measure's ability to predict recovery is tested. In other words, the 4 subscales in Factor I, explaining 46% of the variance in Pretest scores, may be expected to be used as control variables at one time and as predictors of outcome at another. In contrast to the conventional religious form of spirituality measured on Factor I, Factor II appears to be composed of items reflecting mystical spiritual awareness.

The Mystical spiritual awareness dimension .

Factor II included the 4 subscales relating to Hood's Mysticism scale. The first three subscales are all part of Hood's (1975) Mysticism Scale. The Mysticism scale and preliminary measures of reliability and validity were first

published by Hood (1975). The scale was developed from Stace's (1960) conceptualization of mysticism as a cross cultural phenomenon unbiased by religious ideology. The M scale is composed of 32 items, four for each of 8 categories of mysticism conceptualized by Stace, with a 5 point Likert type scale ranging from "definitely not true of my experience" to "definitely true of my experience".

The categories of mysticism developed by Stace and included in Hood's Mysticism scale include Ego Quality, Unifying Quality, Inner Subjective Quality, Temporal/Spatial Quality, Noetic Quality, Ineffability, Positive Affect and Religious Quality. Ego Quality refers to an experience where the sense of self is lost but consciousness is maintained. For example: "I have had an experience in which I felt myself to be absorbed as one with all things". Unifying Quality refers to an experience where everything is perceived as "One". For example: "I have had an experience in which I realized the oneness of myself in all things". Inner Subjective Quality refers to the perception of an inner subjective awareness in all things. For example: "I have had an experience in which I felt as if all things were alive". Temporal/Spatial Quality refers to an experience in which both time and space are modified. For example: "I have had an experience in which I had no sense of time or place". Noetic Quality refers to a intuitive, insightful experience perceived as a valid source of knowledge. For example: "I have had an experience in which a new view of reality was revealed to me". Ineffability refers to an experience that simply can't be put into words. For example:"I have had an experience that is impossible to communicate". Positive Affect refers to experiences that are typically perceived as full of joy or bliss. For example:"I have experienced a deep sense of joy". Finally, Religious Quality refers to an experience that includes feelings of awe, reverence and mystery that may be expressed independently of conventional religious

language. For example: "I have had an experience which I knew to be sacred". After statistical analysis items composing these 8 categories yield 2 or 3 factors.

Factor analysis of the Mysticism scale by Hood (1975) and a replication by Caird (1988) both yield a similar two factor solution with 20 items composing general unitary categories of mystical experience factor (I) and 12 items forming a religious interpretation factor (II). Caird also produced a three factor solution which retains the same first factor of unitary mystical experience "but subdivides the Interpretive categories into Noetic (Factor 2) and Religious (Factor 3)" (p.127).

Hood (1975) provides evidence of construct validity. The Mysticism scale correlated (r=.-.75, p. <.01) with Taft's (1970) measure of "Ego Permissiveness" or openness to experience."Note that Taft's scale is scored so that a lower score indicates greater ego permissiveness"(p.37). So, a negative correlation would be expected. This correlation with a measure of openness appears to satisfy one important aspect of our concept of spirituality.

In addition, Hood (1975) reports the Mysticism scale significantly correlated (r=.81, p <.01) with a measure of intrinsic religiosity in a sample of 65 "intrinsically oriented" students at a "fundamentally Christian School" (p.35). This might be troubling to our goal of a "nonsectarian" measure except that Hood (1976) reports that those with no denominational orientation scored the highest on both factors of the Mysticism scale when compared to conventional religious groups. Hood "suggests that both traditional religious sources (such as perhaps the mass) and non traditional sources can serve to elicit reports of mystical experience" (p. 1134).

Hood (1975) also reports that the Mysticism scale correlated (r=.47, p < .01) with his earlier measure of reported religious experience, the Religious Experiences Episodes Measure. This measure was based upon James' (1902)

classic work and composed of "45 descriptions of intense religious experiences". The Religious Experiences Episodes Measure has also "been shown to be related to a measure of hypnotic susceptibility". Hood interprets this correlation as supportive of the convergent validity of the mysticism scale.

For this study the Mysticism Scale was slightly modified with the negatively worded items removed or rephrased to reduce the length of the scale by half. In this way measures of the 8 categories of mysticism conceptualized by Stace were retained using only 16 items. The reason for modifying the scale had as much to do with concern about the population being surveyed as concern over length of the instrument. The negatively worded items, it was reasoned, would appear confusing to people in the early stages of recovery and would introduce error into their responses.

As noted previously, factoring the Mysticism Scale yields either a two or three factor solution. Pretest data showed all three mystical factors correlating, as might be expected, only slightly with Ellison's two subscales. Correlations ranged between .06 and .37.

A principal axis factor analysis of the modified Mysticism scale with pretest data was performed with a varimax rotation. Four principal factors had Eigenvalues above 1.0. The scree test showed a distinct "elbow" at two components. So, it appears that the first two factors provide the optimal solution. However, this procedure extracted all four principal factors. The variance explained by Hood's (1975) two factor solution was 31.85% of the total variance; Caird's (1988) two factor solution explained "33.70% of common variance (out of 41.66% of total variance), and the three-factor solution accounted for 37.66% of common variance (out of 46.87% of total variance)" (p. 125). In contrast when using the modified Mysticism scale with pretest data the first two factors extracted accounted for 50.3% of the total variance; a third

factor added 5% to the total variance accounted for. The difference in variance accounted for between the 32 item original scale and the modified 16 item scale may be attributed to a reduction in error variance due to deletion of the confusing negatively worded items. The factors extracted in all three studies were composed of similar dimensions: Unitary experience, Noetic experience, and Religious interpretation.

The fourth and final subscale found in Factor II is the "Openness to possible spiritual experience " subscale. The "Openness to possible spiritual experience" subscale is an original measure of one aspect of spiritual awareness. Composed of 8 items reflecting each of Stace's 8 categories, these items take the key components of Hood's Mysticism Scale and place them in the context of a "possible" experience. The idea is to measure how open the subject is to the possibility of spiritual experiences. Hopefully this measure will reflect the type of "openness" Keller (1983) and McDaniel (1986) have described as the intuitive sensitivity of someone to "feel for the organism" with an inward openness toward the world. Pretest data showed that these 8 items contributed to the internal consistency of the overall measure of mystical spiritual awareness. Factor analysis of the overall 58 items measuring both conventional religious spiritual awareness and mystical spiritual awareness found these 8 items, measuring openness to spiritual experience, to be only modestly correlated with Religious Well Being ($r=.43$) and Existential Well-Being ($r=.29$). Such a weak (or even negative) relationship between openness to mystical spiritual experience and intrinsic religiosity is expected based upon Batson's (1982) discussion.

Pretest data also showed that when all 8 subscales were subjected to factor analysis the three subscales of the modified Mysticism scale correlated positively with the 8 item measure of openness to the possibility of spiritual

experience. These correlations were expected since the "Openness to possible spiritual experience " subscale is composed of slightly altered items from the "Mysticism" scale. (See Table 2).

Table 2 Correlation between Hoods Mysticism Scale (modified) and The 8 item measure of "Openness to possibility of spiritual experience"

	Openness to possibility of spiritual experience
Unitary Mysticism	.54
Noetic Mysticism	.71
Religious Interpretation of Mystical Experience	.59

Summary .

Based upon analysis of pretest data, measures of both independent variables were identified. The independent variable of mystical spiritual awareness will be measured with the 16 item, modified version of Hood's Mysticism scale along with the 8 item "Openness to possible spiritual experience" scale. These two scales were shown empirically to join in a common factor conceptually compatible with an index of spiritual awareness.

The variable of conventional religious spiritual awareness will be measured with Ellison's 20 item Spiritual Well-Being scale, the 4 item "Freedom" and the 10 item "Fruits of the Spirit" subscales. These three scales were shown empirically to join in a common factor conceptually compatible with an index of conventional religious spiritual awareness.

Secondary/Background variables

The variables of Sex, Age, Race, Marital Status, Educational Level, and Income will be measured using categorical responses. As noted in the literature review, some of these variables may influence recovery, consequently, variations in these measures will be controlled in the data analysis.(See instrument, Appendix A)

In order to determine the unique relationship between Spiritual Awareness and Recovery, Involvement in Alcoholics Anonymous will need to be explored in some detail and controlled. A set of eight items serve to measure AA Involvement. These questions are roughly shaped after the work of Sheeren (1985), and related to the earlier studies of Hoffman et al (1983) and Vaillant (1983). Each of the eight items asks about the respondent's level of involvement in an aspect of AA, for example: "How involved have you been in using a sponsor"? The items are measured using a five point Likert scale ranging from "Not involved at all" to "Deeply involved".

Time ordering may help to determine the relative influence of AA upon spiritual experience. AA items related to time ordering include: "When did you first attend AA?; Were you attending AA meetings once a month or more before entering Gateway?; Over the last six months how often did you attend AA meeting in the average month?; Do you plan to go to AA meetings in the future?. The concept of spirituality in AA will be introduced by asking the subject: "In your experience in AA groups how much emphasis is placed on spirituality"? Responses to this question will be measured by a 5 point Likert scale ranging from "None" to "A Great Deal".

Finally, a common complaint heard about AA is related to the spiritual focus and its effect on involvement in the program. This spiritual focus, it is said, "turns off" or "discourages" the involvement of a great number of atheists,

agnostics, "free thinkers" and religious fundamentalists who might otherwise benefit from the fellowship of AA. In order to validate the extent of this complaint respondents will be asked "How has your involvement in AA activities been affected by AA's spiritual emphasis"? Responses will be measured with a 5 point Likert scale ranging from "Greatly discouraged my involvement" to "Greatly encouraged my involvement".

A number of other secondary or background variables may be used as control variables or as exploratory variables. *Depending upon analysis of data the following variables may not be necessary to report in this dissertation.* In order to explore spiritual experiences in more detail, respondents will be asked to estimate the number of spiritual experiences, and the number of experiences under the influence of alcohol or other drugs. Time ordering may help to determine the relative influence of AA or religious affiliation upon spiritual experience. Items exploring time ordering inquire about age at first spiritual experience, age at first involvement with organized religion, and, frequency of attendance in religious services in the past year. The perceived effect of the spiritual experiences upon drug use and the use of drugs to attain spiritual experience will also be explored.

In order to examine the effects of religion, religious affiliation and frequency of attendance in a religious "place of worship during the past year" are requested using categorical responses and Likert scales respectively. In addition, in order to determine the importance and effect of religious involvement, the respondent will be asked: "How important is religion in your life"? " How much did your involvement in religion before AA encourage you to participate in AA"? How much did your AA experience encourage you to participate in organized religion"? These three questions will use 5 point Likert scales to allow for variability in response.

Plan for Analysis of Data

The procedures for data analysis will be similar to those employed on the pretest. First, descriptive statistics of various types, depending upon the level of measurement of the variables, will be employed to analyze the data. Next, psychometric analysis will be performed on scales. Then, as Norusis (1985,1987) suggests, variable relationships will be plotted to generally determine the shape of the relationship. Finally, an appropriate statistical method will be selected to describe the plots.

"Nominal" variables in this study include sex, marital status, race, drinking or abstaining from alcohol during the past year, and religious preference. These variables simply name a distinguishing characteristic of the respondent so descriptive statistics will generally be limited to frequency counts of each variable. The strength of association between some of these variables may also be measured using variations of the Chi-Square statistic such as Cramer's V but a better measure for the data, due to the number of categories, would probably be a proportional reduction of error measure like Lambda.

There are many approximate interval scaled variables in this study. The scales measuring attitudes toward AA, perceived emphasis on spirituality in AA, perceived affect of AA spiritual emphasis on AA involvement, involvement in various aspects of AA, perceived levels of parental love, parental drinking and importance of religion will be treated as approximate interval scales. Also the scales measuring Mysticism, Spiritual Well-Being, Possible Openness to Spiritual Experiences, Freedom, Fruits of the Spirit, and the Guttman true/false scale measuring drinking problems, are all approximate interval scales. Factor and reliability analyses of these scales will be performed to replicated the pretest. Scales employed in this study will be subjected to psychometric

analyses. Factor analysis of scales will determine the dimensions underlying scale items. Reliability analysis will measure the strength of inter-item correlations in each scale.

The last level of measurement found in this research is the "interval" or "ratio" level. The variables of age, formal education and income can all be statistically described in terms of proportions or ratios because they all have an absolute zero. Statistics that may be reported for these variables include Median, Standard Deviation and Range scores. In addition, score distributions will be examined for kurtosis and skewness and analysed for assumptions of normalacy involved in parametric analysis.

Hypothesis testing analysis will employ, as appropriate, Pearsons r correlations and partial correlations controlling for variables that, theoretically, might be expected to confound the relationship between spiritual awareness and recovery. For example, AA involvement and spiritual awareness could explain recovery so these variables would need to be controlled using partial correlations. Other factors known to correlate with recovery such as income, age, marital status and religious preference will also need to be controlled if they are found to correlate with spirituality. Since this study has dichotomous dependent variables and several discrete and continuous independent variables, Discriminant Analysis may be employed as an alternative to partial correlation where a number of control variables are used simultaneously.

Follow-up and secondary analyses of data may be required to check on time ordering assumptions. When looking at the role that spiritual awareness may play in recovery, time ordering questions arise: "Did AA lead to spiritual awareness and then to recovery? Or, did spiritual awareness lead to AA and then to recovery"? To help clarify this time ordering concern respondents will be asked "When did you first attend AA"? Then, after responding to the items

measuring Mystical Spiritual Awareness, respondents who believe they have had mystical spiritual experiences will be asked "About how old were you when you first had a spiritual experience"? After comparing these responses we can break the sample down into two groups: a) respondents who had spiritual experiences prior to AA involvement; b) respondents who became involved in AA prior to any spiritual experiences. If our hypothesis is correct, a positive correlation between Spiritual Awareness and Recovery should hold for group "a", even after partial correlations remove the variance in recovery explained by AA involvement. Likewise, the relationship between AA involvement and Recovery should diminish for group "b", after partial correlations remove the variance in recovery explained by Spiritual Awareness. A similar process may be used to determine the time order of conventional spiritual awareness by partitioning the sample according to their responses to the item asing of their involvement in relifion before AA encouraged participation in AA,

Respondents in Study

The sampling procedure outlined earlier was followed. From January 1984 to January 1989 2,722 admissions who listed alcohol as their drug of choice were discharged from Gateway after completing the full treatment program, one case known to be deceased was eliminated, leaving 2,721 (See Table 3) .

Table 3

Breakdown of Gateway Admissions and Discharges by year

	1984	1985	1986	1987	1988	Totals
Admissions	1201	1227	1192	1145	107 (Jan)	4872
"Regular" Discharges[a]	1011	1020	939	923	80	3973[b]
Males	776	784	747	708	55	3070[c]
Females	235	236	192	215	25	903[d]
"Regular" Discharges with Alcohol Problems	712	704	643	601	61	2721[e]

a "Regular" discharges are given to those who complete the full program
b 82 percent complete the program
c 77 percent of regular discharges were male
d 23 percent of regular discharges were female
e 68 percent of regular discharges were alcoholic

These 2721 cases were compiled into a alphabetized mailing list and examined in more detail. It was determined that 41 of the cases were readmissions to treatment; these 41 were eliminated from the analysis leaving a pool of 2,680. Of these 2,680, 124 had addresses that were not valid (the postal service had returned previous mailings as undeliverable). These 124 were eliminated leaving a final pool of 2,556 cases from which to draw. Every sixth case was drawn at random until 400 names and addresses were selected. The researcher then checked either case file or microfiche to insure that each case selected was diagnosed alcoholic. After 250 consecutive cases were determined to contain an alcoholic diagnosis, further search was believed unnecessary since the computerized discharge information of alcohol as the drug of choice appeared to be a valid and reliable indicator of an alcoholism diagnosis. All 400 randomly selected people were sent a cover letter and copy

of the revised questionnaire (Appendix A) and a post paid return envelope. Two weeks later all were sent a follow-up post card.

After four weeks 116 surveys were returned. However, of these, two were returned deceased, two were returned by the post office as undeliverable, one was returned indicating the respondent was out of the country and one was returned so incomplete it could not be used, leaving 110 usable surveys reflecting a 28 percent response rate. The 110 valid surveys appear to be evenly distributed among years and by sex in comparison to the Gateway population (See Table 4).

Table 4

Percent Comparison of Gateway Population and Survey Respondents by Sex and Year of Treatment*

	Sex		Year of Treatment					
	Male	Fem.	1984	1985	1986	1987	1988	
Population	77	23	26	26	24	22	2	
Respondents	73	27	28	24	20	27	1	

* Refer to Appendix F for further comparisons.

More specifically, the N of 110, consisted of 77 males, 28 females and 5 who missed the item. Their ages ranged from 18 to 75 with a mean age of 44.4 (SD=12.3). Most (63) were married, 18 were divorced, 14 never married and the remainder were widowed (5), separated (3), or missed the item (5).

Results

The central hypothesis studied was that the higher the spiritual

awareness of a recovering alcoholic, the better the recovery from alcoholism. Basic descriptive, bivariate and inferential statistics are presented in this section. This results section will be broken down into ten subsections providing (1) descriptive results of key variables used in later analyses, (2) results of psychometric analysis, (3) an examination of key bivariate relationships, (4) a didactic prologue to discriminant analysis in general, (5) a description of the specific application of discriminant analysis in this research, (6) a description of the logic leading to a selection of outcome measures, (7) the results of hypothesis tests, (8) an examination of the relative strength of predictor variables, (9) an exploration of time ordering questions and , finally, (10) an exploration of variables showing promise for further research based upon exploratory analysis of these data. Statistics in this section tend to support the hypothesis, at least in terms of variables measuring conventional forms of *spiritual awareness* . *Mystical forms of spiritual awareness* were not significantly related to recovery in this sample.

Descriptive Results

In general, respondents were predominantly middle aged, married, white, Catholic men with some college level education, earning approximately $30,000 per year. They averaged about eight AA meetings per month, attended religious services every month or two and reported that organized religion is somewhat important in their lives. Their average age at first exposure to conventional spiritual awareness, via religion, was 5.5 years. Only about half (N=59) had experienced what could be described as a mystical form of spiritual awareness; the average age at first mystical experience was 23.8 years. In terms of alcohol consumption, 76 reported totally abstaining from alcohol during the past year and 34 reported consuming alcohol during the past year. Of the 34

drinkers, 20 (59%) would be classified as alcoholic using DSM3 criteria. Table 5 provides the means, standard deviations and scale ranges for all continuous scored variables reported in this section (see Table 5).

Table 5
Means and Standard Deviations for continuously scored variables

Variable Name	Mean	Standard Deviation	Scale Range
BACKGROUND VARIABLES			
AGE	44.38	12.25	18-75
AA VARIABLES			
ATTITUDE TOWARD AA	3.74	.50	1-4
AA INVOLVEMENT	2.54	1.04	1-5
AVERAGE # AA MEETINGS/MONTH	8.00	9.94	0-40
MYSTICAL SPIRITUAL AWARENESS VARIABLES			
RELIGIOUS MYSTICISM *	3.78	.92	1-5
UNITARY MYSTICISM *	3.18	.92	1-5
CONVENTIONAL SPIRITUAL AWARENESS VARIABLES			
RELIGIOUS WELL-BEING *	4.75	1.15	1-6
FREEDOM	5.06	.92	1-6
FRUITS OF SPIRIT	4.52	.73	1-6
IMPORTANCE OF RELIGION	2.76	1.31	1-5
ATTENDANCE AT WORSHIP	2.59	1.53	1-5
PERCEIVED SPIRITUALITY	3.32	1.06	1-5
EXPLORATORY VARIABLES			
PERCEIVED FATHER'S LOVE	3.14	1.36	1-5
PERCEIVED MOTHER'S LOVE	3.85	1.15	1-5
PERCEIVED FATHER'S DRINKING	2.97	1.31	1-5
PERCEIVED MOTHER'S DRINKING	2.05	1.15	1-5

Table 5 continued
Means and Standard Deviations for continuously scored variables

Variable Name	Mean	Standard Deviation	Scale Range
EXPLORATORY VARIABLES continued			
EXISTENTIAL WELL-BEING *	4.33	1.09	1-5
# OF MYSTICAL EXPERIENCES	6.60	7.31	1-37
AA ENCOURAGES RELIGION	3.39	.81	1-5
RELIGION ENCOURAGES AA	3.22	.77	1-5
AGE FIRST EXPOSED TO RELIGION	5.46	5.11	0-35
AGE FIRST MYSTICAL EXPERIENCE	23.83	14.45	5-59
COMPLETED GATEWAY *	38.02	15.34	
DIAGNOSES *	1.66	.249	1-2
BELIEF IN THE PROBABILITY OF MYSTICAL EXPERIENCE *	4.69	.76	1-6
CONVENTIONAL SPIRITUALITY	*4.69	.75	1-6

* See text for more detail on these variables

Several variables in Table 5 require comment:

First, the conclusion to form two distinct sets of measures of spiritual awareness (i.e. conventional and mystical) was based upon the conceptual work and empirical results of the pretest described earlier. The Religious and Unitary mysticism scales are component parts of Hood's (1975) Mysticism scale. The Religious Well-Being scale is half of Ellison's (1983) Spiritual Well Being; the other half of his scale appears as the Existential Well Being scale under the heading of "exploratory variables". Existential Well-Being is more a life satisfaction measure than it is a measure of spirituality. Consequently, it would be inappropriate to conceptualize it as a measure of spiritual awareness and it will not be used as one. It should be noted that removing Existential Well-Being as a measure of conventional spiritual awareness was a conservative

move. The results of the hypothesis tests, reported below, would have been in the same direction only much stronger were Existential Well - Being left in as a measure of conventional spiritual awareness. Both Hood and Ellison's scales were described in the Methods section of this paper and the psychometric properties of these scales, using this sample, will be described below.

Completed Gateway was a measure of the months since completion of treatment at Gateway. The mean of 38.02 indicates the average number of months since treatment for the sample of 110.

Diagnoses was a 32 item scale with true/false measure of symptoms associated with alcoholism. Only the 34 respondents who reported that they had consumed alcohol during the past year were directed to complete this measure. This scale was developed by Williams et. al (1987) and was described in more detail in the methods section (p.69).

The "Belief in the Probability of Mystical Experience" scale is a set of 8 items that were designed to measure the respondent's psychological "openness" to the possibility of mystical experiences. Pretest factorial analyses placed this scale on the same factor as other measures of mystical spiritual awareness however, factor analyses, using this sample, were inconclusive and this scale was dropped before the hypothesis tests.

The "Conventional spirituality scale" spans 3 subscales (Religious Well-Being, Freedom and Fruit), is composed of 24 items, and is used as a global measure of conventional spiritual awareness in the "time ordering" partial correlations reported later.

Table 6 breaks down all category variables reported in this section into the number of respondents in each category and the percentage of valid cases in each category. Several variables in Table 6 require clarification:

AA Before Gateway was a measure of whether or not the respondent

attended AA prior to treatment at Gateway. It was coded 1=No (N=84) and coded 2=Yes (N=25), one respondent missed this item.

Future AA was a dichotomous measure of the intent to attend AA meetings in the future. It was coded 1=No (N=24) and coded 2=Yes (N=82) four respondents missed this item.

Examination of data on the 12 item measure of respondents past drugs of choice revealed two of the twelve drugs (opiates and sedative hypnotics) were of significant interest in this research. In table 6 "No" indicates respondents who did not choose the drug as one of their drugs of choice in the past. A "Yes" indicates respondents who did choose the drug as one of their drugs of choice in the past.

Both "Recovery" and "Alcoholic" utilized Williams et. al (1987) 32 item scale in categorizing respondents. For the three category measures of outcome (Recovery) 23 respondents reported drinking during the past year and experiencing severe alcohol related problems, 11 reported some, less than severe problems, related to alcohol, and 76 reported total abstinence from alcohol during the past year. For the dichotomous category measures of outcome (Alcoholic) 90 respondents reported abstaining during the past year or drinking with less than alcoholic symptoms as defined by DSM3, while 20 reported drinking with symptoms of alcoholism as defined by DSM3.

Drinking Status was determined by single item requiring a "Yes" "No" response. For the dichotomous category measures of outcome (Drinking Status) 76 respondents reported no alcohol consumed during the past year, 34 reported drinking during the past year (see Table 6).

Table 6
Percentage breakdowns for category variables

Variable Name	N[a]	Percent of valid cases in each category
BACKGROUND VARIABLES		
Education		
No formal education	—	—
Some grade school	—	—
Completed grade school	1	1.00
Some high school	10	9.50
Completed high school	33	31.40
Some College	33	31.40
Completed College	16	15.20
Some graduate work	8	7.60
A graduate degree	4	3.80
Marital Status		
married or living with someone *in a marriage-like relationship*	65	61.90
Not married	40	38.10
Sex		
Male	77	73.33
Female	28	26.66
Race		
Black	4	3.81
White	101	96.19
Income		
Less than $3,000	3	2.80
$3,000 to 4,999	2	1.90
$5,000 to 6,999	-	-
$7,000 to 9,999	8	7.50
$10,000 to 12,999	7	6.60
$13,000 to 15,999	2	1.90
$16,000 to 19,999	3	2.80

Table 6 continued
Percentage breakdowns for category variables

Variable Name	N[a]	Percent of valid cases in each category
$20,000 to 24,999	16	15.10
$25,000 to 29,999	9	8.50
$30,000 to 34,999	20	18.90
$35,000 to 39,999	8	7.50
$40,000 to 50,000	9	8.50
$50,000 to 75,000	11	10.40
$75,000 to 100,000	3	2.80
$100,000 to 150,000	2	1.90
greater than $150,000	3	2.80
AA VARIABLES		
AA before Gateway *		
No	84	77.06
Yes	25	22.96
Future AA *		
No	24	22.64
Yes	82	77.36
Religion		
Protestant	35	32.41
Jewish	0	—
Catholic	48	44.44
Other	10	9.26
None	15	13.88
EXPLORATORY VARIABLES		
Choice of opiates *		
No	94	87.04
Yes	14	12.96
Choice of sedative hypnotics *		
No	97	89.81
Yes	11	10.19

Table 6 continued Percentage breakdowns for category variables

Variable Name	N[a]	Percent of valid cases in each category
OUTCOME VARIABLES		
Recovery *		
Drinking during past year with severe problems	23	20.90
Drinking during past year with some problems	11	10.00
Abstinent during the past year	76	69.10
Alcoholic *		
Abstinent or drinking with less than alcoholic symptoms as defined by DSM3	90	81.80
Drinking with symptoms of alcoholism as defined by DSM3	20	18.20
Drinking Status *		
Abstinent during the past year	76	69.10
Drinking during past year	34	30.90

[a] N's do not always equal 110 due to occasional missing values
* See text for more detail on these variables

Psychometric Analyses

The 12 scales and subscales used in the questionnaire were factor analyzed and their internal consistency was evaluated. Ellison's (1983) Spiritual Well Being Scale loaded as expected after a Principal Axis Factor (PAF) extraction and Varimax rotation. Essentially all the religious items loaded on the first factor and the existential life satisfaction items on the second factor. This factor analysis provides empirical support for the conceptual conclusion that the items measuring life satisfaction should not be viewed as measures of spiritual awareness. There were three complex items(#'s 58,67,74) which loaded higher than .40 on both factors but they were retained in the scale (1) because the loadings were clearly higher on the expected functions for two of the items (#'s 74,67) and (2) to leave intact an established scale (see Table 7).

Table 7
Oblimin Rotated Factor Matrix of Ellison's (1983) 20 item Spiritual Well-Being Scale

Item # in Questionnaire	Factor 1 Religious Spirituality	Factor 2 Existential Life Satisfaction
55 I don't find much satisfaction in private prayer with God.	.59	.15
56 I don't know who I am, where I came from, or where I'm going.	.03	.55
57 I believe that God loves me and cares about me.	.71	.09
58 I feel that life is a positive experience.	.51	.40
59 I believe that God is impersonal and not interested in my daily situations.	.77	.12
60 I feel unsettled about my future.	.02	.73
61 I have a personally meaningful relationship with God.	.83	.27
62 I feel very fulfilled and satisfied with life.	.17	.80
63 I don't get much personal strength and support from my God.	.66	.29
64 I feel a sense of well-being about the direction my life is headed in.	.26	.66
65 I believe that God is concerned about my problems.	.86	.10
66 I don't enjoy much about life.	.28	.71
67 I don't have a personally satisfying relationship with God.	.66	.51
68 I feel good about my future.	.19	.78
69 My relationship with God helps me not to feel lonely.	.72	.35
70 I feel that life is full of conflict and unhappiness.	.12	.67

Table 7 continued

Oblimin Rotated Factor Matrix of Ellison's (1983) 20 item Spiritual Well-Being Scale

Item # in Questionnaire	Factor 1 Religious Spirituality	Factor 2 Existential Life Satisfaction
71 I feel most fulfilled when I'm in close communion with God.	.79	-.08
72 Life doesn't have much meaning.	.30	.79
73 My relationship with God contributes to my sense of well-being.	.83	.23
74 I believe there is some real purpose for my life.	.49	.44

Table 8 compares the results for Hood's (1975) two component orthogo09nal solution with Caird's(1988) two factor oblique solution and the present two factor oblique solution. Hood's(1975) solution explained 31.85% of the variance, Caird's (1988) solution explained 41.66% of the variance and the present two factor solution explained 41.8% of the variance. Since Caird (1988) only reported loadings above .30 the same format is used in this table. The correlations between factors are also provided in Table 8.

Table 8

Comparison of Hood's(1975) two component factor analysis of the Mystical Scale with Caird's(1988) two factor replication and the two factor solution in the present Study.

Stace's Categories/	Hood(1975) two components		Caird's(1988) two factors		Present study two factors	
	1	2	1	2	1 Unitary Mysticism	2 Religious Mysticism
Ego quality/						
I have had an experience in which everything seemed to disappear from my mind until I was conscious only of a void.	.52		.49		.63	
I have had an experience in which I felt myself to be absorbed as one with all things.	.54		.70		.62	
Unifying quality/						
I have had an experience in which I realized the oneness of myself with all things.	.64		.68		.77	.51
I have had an experience in which I became aware of a unity to all things.	.60		.81		.67	.51
Inner subjective quality/						
I have had an experience in which I felt as if all things were alive.	.45		.77		.70	
I have had an experience in which all things seemed to be aware.	.47		.54		.68	.50
Temporal & spatial quality/						
I have had an experience in which I had no sense of time or space.	.56		.65		.62	
I have had an experience in which time, place, and distance were meaningless.	.69		.84		.60	.37
Noetic quality/						
I have had an experience in which a new view of reality was revealed to me.	.50		.70		.43	.64
I have had an experience in which ultimate reality was revealed to me.	.53		.45		.59	.42
Ineffability/						
I have had an experience that is impossible to communicate.	.37		.45			.67
I have had an experience that cannot be expressed in words.	.40		.46		.35	.75

Table 8 continued

Comparison of Hood's(1975) two component factor analysis of the Mystical Scale with Caird's(1988) two factor replication and the two factor solution in the present Study.

Stace's Categories/	Hood(1975) two components		Caird's(1988) two factors		Present study two factors	
	1	2	1	2	1 Unitary Mysticism	2 Religious Mysticism
Positive affect/ I have experienced a deep sense of joy.	.50		.33		.35	.31
I have had an experience which left me with a feeling of wonder.	.54		.43		.44	.69
Religious quality/ I have had an experience which seemed holy to me.	.72	.79			.45	.50
I have had an experience which I knew to be sacred.	.67		.71		.33	.50
Factor 1			.46			.51

In Table 8 the first factor is stable across all three solutions, except for the items measuring Ineffability. In both Caird (1988) and the present study the first factor is composed of the first four of Stace's (1960) categories. These first four categories of items reflect Stace's concepts of mystical unity. The last four categories reflect what Stace saw as the more common types of mystical experience. The complexity of these items, for this sample of recovering alcoholics, is reflected in the high loadings on both factors for many of the items. Correlations (r=.46 and .51) between factors in the two oblimin solutions imply that the Mysticism scale may be measuring two related constructs.

All scale distributions were examined and appeared normally distributed.

No modifications of the scales were necessary to obtain maximum reliability. Distribution and reliability statistics for all scales/subscales and the single item " Spiritual Self Perception" are included in Table 9.

Table 9
Distribution and reliability statistics on all scales/subscales plus one item - SPIRITUAL SELF PERCEPTION

Scale Name	# of items	Mean	S.D.	Alpha	Skew
AA RELATED SCALE					
AA INVOLVEMENT	7	2.54	1.04	.90	.242
MYSTICAL SPIRITUAL AWARENESS SCALES					
RELIGIOUS MYSTICISM	6	3.77	.92	.79	-.925
UNITARY MYSTICISM	10	3.16	.94	.86	-.159
CONVENTIONAL SPIRITUAL AWARENESS SCALES					
SPIRITUAL WELL-BEING[a]	20	4.62	.93	.93	-.476
RELIGIOUS WELL-BEING[a]	10	4.69	.75	.93	-.608
FREEDOM	4	5.09	.90	.74	-1.24
FRUITS OF SPIRIT	10	4.52	.74	.85	-.133
SPIRITUAL SELF PERCEPTION	1	3.27	1.109	__	-.136
EXPLORATORY SCALES					
DIAGNOSES	32	1.66	.249	.93	-.829
EXISTENTIAL WELL BEING[a]	10	4.46	1.01	.90	-.579
BELIEF IN PROBABILITY OF SPIRITUAL EXPERIENCE	8	4.69	.76	.79	-.276
CONVENTIONAL SPIRITUALITY	24	4.69	.75	.91	-.608

[a] The 20 item Ellison's Spiritual Well-Being Scale, is a combination of the 10 item Religious Well-Being and the 10 item Existential Well-Being scales. Existential Well-Being does not appear to be a valid measure of spirituality, it is used here essentially as a measure of life satisfaction.

Table 10 displays the results of a Principal Axis Factor (PAF) extraction, with a criterion of two factors and oblimin rotation, for 7 subscales measuring spiritual awareness. The scale loadings were similar to those found on the pretest with two primary factors correlating only .35 (see Table 10).

Table 10

Oblimin Rotated Factor Matrix of 7 subscales measuring spiritual awareness

Scale Name	Factor1 Conventional spiritual awareness	Factor2 Mystical Spiritual Awareness
RELIGIOUS WELL-BEING[a]	.62	.36
EXISTENTIAL WELL-BEING[b]	.75	.16
BELIEF IN THE PROBABILITY OF MYSTICAL EXPERIENCE[c]	.47	.51
FRUITS OF SPIRIT	.67	.22
FREEDOM	.72	.25
UNITARY MYSTICISM	.18	.68
RELIGIOUS MYSTICISM	.28	.79

[a] One half of Ellison's Spiritual Well-Being Scale
b This scale, half of Ellison's Spiritual Well-Being Scale, does not appear to be a valid measure of spirituality, it is used here essentially as a measure of existential life satisfaction.
[c]All 8 of these items were dropped after this step-see text

exception of the 8 "Belief in the Probability of Mystical Experience" items, originally designed to capture a "psychological openness" to the existence of mystical spiritual experiences. These items had complexity evidenced by similar loadings on both factors. As a result, all 8 of these items were dropped from further analysis. In addition, as noted earlier, the 10 item Existential Well-Being scale, despite its strong loading on the conventional factor, does not appear to

be a valid measure of spirituality and the researcher decided to drop it. It should be noted again that removing Existential Well- Being as a measure of conventional spiritual awareness was a conservative move. The results of the hypothesis tests, reported below, would have been in the same direction only much stronger were Existential Well - Being left in as a measure of conventional spiritual awareness.

In conclusion, two constructs of spiritual awareness (conventional, mystical) were used in later analyses. Conventional spiritual awareness was measured with Religious Well-Being, Fruits of the Spirit and Freedom scales plus the single items measuring Importance of Religion, Attendance at Worship and Perceived Spirituality. Mystical Spiritual awareness was measured with Unitary Mysticism and Religious Mysticism scales. More detail on measures for these two constructs is in the next section.

Test of Hypothesis

Bivariate Relationships

Before testing the hypothesis, all 36 predictor, outcome and exploratory variables in the study were intercorrelated (Appendix E). Detail on many of these exploratory variables is reported under Exploratory Analysis below. A correlation matrix including only the 19 variables, background, AA, Conventional Spiritual Awareness, Mystical Spiritual Awareness and the single dichotomous outcome variable, which were included in the hypothesis test is provided in Table 11.

Examinations of correlation matrices of predictor variables revealed no instances of severe multicollinearity, determined by an r of .80 or above, (see Table 11). The only very high correlation is between the variable measuring Importance of Religion and Attendance at place of Worship (r=.72).

Spiritual Self Perception was consistently ($p<.05$ two tailed test) correlated with all 8 other measures of spiritual awareness; this underscores the importance of self perception as a useful general measure but suggests ambiguity in terms of what aspect of spiritual awareness it is related to most strongly. Factor analysis of Spiritual Self Perception and all other scales measuring spiritual awareness showed Spiritual Self Perception loaded .47 on the Conventional spiritual awareness factor versus . 39 on the Mystical spiritual awareness factor. While these fairly complex loadings do suggest some ambiguity they do not exceed the generally used criteria for exclusion of a .40 load on both factors. Consequently, Spiritual Self Perception is included in the Conventional spiritual awareness block of variables for the discriminant analysis hypothesis testing procedures reported. It should be noted that when this factorial complex item is excluded, the results of the hypothesis tests are virtually identical to what is reported .

Conventional Spirituality measures

The block of variables used to measure conventional, orthodox religious interpretations of spiritual awareness was formed based upon conceptual and empirical work already described. Bivariate analyses supported the earlier conclusions to use the scales Religious Well-Being, Freedom and Fruits of the Spirit plus the single items Importance of Religion, Attendance at Place of Worship and Spiritual Self Perception as a block. These conventional spirituality measures were generally intercorrelated (see Table 11).

Mystical Spirituality measures

The block of variables used to measure mystical spiritual awareness was formed based upon conceptual and empirical work already described. Bivariate analyses supported the earlier conclusions to use the scales Religious Mysticism and Unitary Mysticism as a block. These mystical spirituality

measures were significantly ($r=.54$, $p<.01$) intercorrelated (see Table 11). Interestingly the Unitary mystical measure was not correlated to a significant degree with any of the conventional measures. This observation is congruent with the Factor Analysis of the Mystical scales (Table 7) and lends further support to Stace's (1960) contention that the Unitary experience is unique and not as common as the more conventional forms of spiritual awareness.

Table 11

Pearson Correlation Coefficients for all variables used in test of hypothesis [a,b,c]

	2	3	4	5	6	7	8	9	10	11
BACKGROUND VARIABLES										
1 Education	.33*	.10	-.10	-.12	.05	.17	-.06	.09	.13	.01
2 Income	—	.11	.27*	.12	-.04	-.18	-.27*	-.18	-.12	-.02
3 Age		—	.23	.05	.07	-.06	-.12	-.10	-.18	-.14
4 Marital Status			—	.20	-.03	-.15	-.09	-.09	-.02	-.02
5 Sex				—	-.11	-.26*	-.14	-.12	-.08	-.08
AA RELATED VARIABLES										
6 Attitude toward AA					—	.36*	.06	.32*	.57*	.06
7 AA Involvement						—	.18	.73*	.51*	.27*
8 AA Before Gateway							—	.26*	.20	.12
9 Average # of AA Meetings/Month								—	.40*	.12
10 Future AA									—	.15
11 Religions Mysticism										—

Table 11 continued

Pearson Correlation Coefficients for all variables used in test of hypothesis [a,b,c]

	12	13	14	15	16	17	18	19
BACKGROUND VARIABLES								
1 Education	-.06	.15	.04	.11	.14	.21	.15	.08
2 Income	-.02	-.01	-.04	-.00	-.10	-.07	-.16	.22
3 Age	-.14	-.24*	-.08	-.04	-.12	-.03	-.00	.03
4 Marital Status	-.06	-.06	-.05	-.14	.01	-.13	-.16	.07
5 Sex	-.04	-.01	.13	-.14	.00	-.16	-.13	.08
AA RELATED VARIABLES								
6 Attitude Toward AA	.05	.21	-.17	.17	.07	.13	.08	.00
7 AA Involvement	.16	.46*	.06	.30*	.16	.21	.42*	-.15
8 AA Before Gateway	.14	.02	.01	.04	-.06	.07	-.02	-.24*
9 Average # of AA Meetings/Month	.11	.32*	-.01	.05	.03	.17	.25*	-.19
10 Future AA	-.00	.39*	-.01	.24*	.20	.26*	.11	-.08
MYSTICAL SPIRITUAL AWARENESS VARIABLES								
11 Religious Mysticism	.54*	.33*	.19	.13	.17	.23	.36*	-.06
12 Unitary Mysticism	—	.17	.08	.15	-.00	-.02	.23	-.09
CONVENTIONAL SPIRITUAL AWARENESS VARIABLES								
13 Religious Well-Being		—	.43*	.39*	.43*	.32*	.52*	.18
14 Freedom			—	.50*	.07	-.00	.19	.10
15 Fruits of Spirit				—	.11	.02	.29*	.26*
16 Importance of Religion					—	.72*	.26*	.13
17 Attendance at worship						—	.22	.13
18 Spiritual Self Perception							—	.12
19 Drinking Status								—

a Statistics provided are: pearson correlation coefficient
b N's for each correlation generally vary between 103 and 110 due to occasional missing values.
c * $p<.01$

Further examination of Table 11 shows the 5 AA measures, as anticipated, were generally highly intercorrelated. These intercorrelations imply that these five variables are measuring the same construct. In general, the intercorrelations within the AA, conventional spirituality and mystical spirituality blocks of variables were high enough to suggest they were measuring a uniform construct, but not so high as to suggest redundancy.

The only predictors to correlate at a significant ($p<.01$) level with the outcome measure of Drinking Status were Income ($r=-.25$), AA involvement ($r=-.32$) and Future AA ($r=-.28$). These correlations indicate that respondents reporting higher income, greater AA involvement and plans to attend AA in the future also report abstaining from alcohol during the past year.

Other variables displayed some notable correlations. Income significantly correlated with education ($r=.33$, $p<.01$)). Females showed greater involvement with AA as evidenced by sex correlating ($r=-.26$, $p<.01$) with AA Involvement. Religious Well-Being decreased with age as evidenced by correlations ($r=-.24$, $p<.01$) between the two. AA involvement correlated with Religious Well-Being ($r=.46$, $p<.01$) and Fruits of the Spirit ($r=.30$).

Prologue - Discriminant Analysis

The appropriate statistical technique to analyze the relationships between normally distributed independent measures and nominal or ordinal grouping dependent measures is discriminant analysis. Discriminant analysis is commonly used to build predictive models. The usual goals of discriminant analysis and attendant statistics are explained below in order to provide a more complete understanding of the technique. However, for the purposes of this research, discriminant analysis will be used to test for a statistically significant relationship of continuous X independent variable(s) with a category Y

dependent variable while controlling for designated Z variables that might confound the X to Y relationship. A full description of this specialized application of discriminant analysis follows in the third section of this prologue.

Common applications of discriminant analysis

In contrast to the specialized goal of hypothesis testing used in this study, the usual goal of discriminant analysis is threefold. The first goal is to classify cases, on the basis of variance in the independent "predictor" variables, into one of two or more mutually exclusive and previously defined groups. The second goal is to determine, via control of the variance in the predictor variables by techniques similar to multiple regression, the best weighted model of predictor variables for distinguishing among the groups. The third goal is to evaluate the accuracy of the predictive model by applying it to a set of cases with known group membership and comparing predicted group membership with known group membership. The statistics involved in discriminant analysis include Wilkes lambda, F, Canonical Correlation, Group Centroids and Percent Classified Correctly.

Wilkes lambda, also known as the U statistic, is the ratio of the within groups sum of squares to the total sum of squares when variables are considered individually.

> A lambda of 1 occurs when all observed group means are equal. Values close to 0 occur when within-groups variability is small compared to the total variability, that is , when most of the total variability is attributable to differences between means of the groups. Thus, large values of lambda indicate that group means do not appear to be different, while small values indicate that group means do appear to be different (Nourusis, 1985, p.79).

Discriminant analysis commonly selects variables to step into the equation based upon a rule of minimizing Wilkes lambda. In the case of this study variables selected for inclusion in the analysis are those whose means are most different for each level of the dependent variable. The strength of each variables contribution to minimizing lambda is indicated by its value of F or F significance level.

F is a partial correlation statistic. While controlling for the correlations between the dependent variable and the independent variables in the equation, the correlations between the independent variables not in the equation and the dependent variable are compared. The variable with the largest partial correlation is the variable with the largest F. A variables F and its corresponding level of significance will also vary depending upon the degrees of freedom in the model. In discriminant analysis the F reported for each independent variable will be the same as the F reported in a ONEWAY analysis of variance, the grouping variable being the dichotomous outcome variable. In a ONEWAY analysis of variance eta measures the degree of association between grouped independent and dependent variables; in discriminant analysis the canonical correlation is similar to eta.

Discriminant analysis develops linear combinations of predictor variables with weights or coefficients for each variable in the equation and a constant coefficient. When the coefficients are applied to the raw scores of each case and constant coefficient is added the case may be most accurately classified into the correct outcome group. These weights are called discriminant function coefficients and the linear combination of weighted variables plus the constant is the discriminant function. One discriminant function will be generated when there are two possible outcome groups, when there are more than two possible outcome groups there will be discriminant functions equal to the number of

outcome groups minus one. All discriminant functions are "uncorrelated with each other and maximize the ratio of the between-groups to the within-groups sum of squares. The second function is uncorrelated with the first and has the next largest ratio." (Nourusis, 1985,p.99). When there are several outcome groups a cases values on all functions must be considered simultaneously prior to classification. As Nourusis (1985, p. 88) says "A 'good' discriminant function is one that has much between-groups variability when compared to within-groups variability. The canonical correlation statistic provided at the end of each discriminant analysis is a central measure of this "goodness". The canonical correlation reflects the degree of association between the discriminant scores generated for each case and the outcome group classification. The canonical correlation squared indicates the proportion of total variance attributable to differences among the groups. The differences among the groups increase as the discriminant model of predictor independent variables becomes better at distinguishing between groups.

One way to discern how different outcome groups are is to examine the mean discriminant score for each group. These mean scores are reported as "Group Centroids" by discriminant analysis. Groups whose centroids are close together may be expected to "overlap" making discrimination of cases into one or the other group less accurate. Conversely, widely dispersed group centroids indicate clear differences between the groups and make correct classification of cases more likely.

The relative accuracy of different discriminant models may also be described if group membership for each case is already known. Discriminant analysis automatically computes the proportion of cases, for which group membership is known, that are classified by the discriminant model into the correct group. This descriptive statistic is called "Percent Classified Correctly"

and appears after every discriminant analysis in the SPSSX formatted discriminant analysis program. This statistic, while useful for some applications, should be regarded with caution since it does not control for chance.

Application of discriminant analysis in this research

For the purposes of this research, discriminant analysis will be used to test for a statistically significant relationship of continuous X independent variable(s) with a category Y dependent variable while controlling for designated Z variables that might confound the X to Y relationship. Based upon the literature review and bivariate exploration certain background and AA related variables may be expected to contribute to the recovery process. The discriminant analysis program can be designed so that the normally automatic stepwise deletion of variables is disarmed. In this way, the researcher can fully control what variables are in the equation before any individual or block of predictor variables are introduced. The net result is that the background and AA variables can be grouped into blocks and "forced" into the discriminant analysis in any order. In short, full control of extraneous Z's is possible via manipulation of the program commands.

Using the procedure explained above, the following variables were controlled for by grouping them into blocks and forcing them into the equation prior to the introduction of predictor variables:

5 Background variables- Education, Income, Age, Marital Status, Sex.

5 AA variables- AA Involvement, AA Before Gateway, Future AA, Average # of AA Meetings and Attitude Toward AA.

With the above 10 variables entered in the equation, discriminant analysis will report a canonical correlation statistic for the equation. It is the difference between this canonical correlation statistic (old step in the formula

below) and the canonical correlation statistic reported after the spiritual awareness predictor variables are forced into the equation (new step in the formula below) that will be used to formulate the significance of the spiritual awareness predictors in the equation when background and AA variables are controlled.

The significance of stepping in the variables measuring spirituality may be computed with the following formula:

$$F = \frac{cc^2 \text{ new step} - cc^2 \text{old step}}{1 - cc^2 \text{ new step}} \quad X \quad (N-K-1)$$

Where cc=canonical correlation

N= number of cases analyzed

K= number of variables in the new step

Six measures of conventional spiritual awareness were predictor variables : Religious Well-Being, Freedom, Fruits of Spirit, Importance of Religion, Attendance at Place of Worship and Spiritual Self Perception . Mystical spiritual awareness was measured with Unitary Mysticism and Religious Mysticism.

Selection of Outcome Measure

Prior to reporting the results of the hypothesis test some comment relative to the selection of the final outcome variable is in order. Preliminary discriminant analyses, using the three level outcome variable of Recovery and all background, AA, and spiritual awareness predictor variables, revealed that the two discriminant functions together were significant at the .01 level. When the first discriminant function was removed, the significance level associated with the second discriminant function was .34 indicating that it did not contribute substantially to group differences. The second function probably did not reflect

true population differences, only random variation. Consequently it was disregarded. An evaluation of the first discriminant function at the group means (group centroids) revealed the group centroids for those who were drinking with severe problems and those who were drinking with some problems were much closer to each other in terms of their discriminant scores than either of them were to the group who was abstaining. This close association between the two drinking groups may reflect an aspect of the argument in the field over whether or not controlled drinking is a viable alternative for those previously diagnosed alcoholic (see Table 12).

Table 12

Group Centroids for three level measure of Recovery

Group	N	Group Centroids Function 1
1. Drinking during the past year with severe problems	20	-0.905
2. Drinking during the past year with some problems	14	-1.270
3. Abstinent from alcohol during the past year	76	0.445

Since these data suggest that the difference in discriminatory scores is slight between severe problem drinkers and drinkers with less than severe problems, and since a dichotomous outcome variable is more parsimonious than a three way outcome, it was decided to combine these two groups into one. The empirically driven logic to combine these groups is consistent with the prevailing wisdom about alcoholism recovery among many clinicians and some theorists . Simply stated this logic leads to the conclusion that the only viable condition for a recovering alcoholic is total abstention from alcohol. Consequently, the sample was divided, based upon drinking status, into those

who reported no consumption of alcohol during the past year (group 1) and those who reported alcohol consumption during the past year (group 2). When discriminant analysis was used to distinguish among these 2 groups the group centroids were more clearly defined as evidenced by a distinct spread between the centroids (.448 vs -1.146).

The two level (abstainers/drinkers) dichotomous variable "Drinking Status" simply partitions the sample into abstainers and drinkers. A second, more refined, outcome measure was developed. The second dichotomous outcome measure is called "Alcoholic". Coded 0, Alcoholic = non alcoholic drinkers and abstainers; this group has an N=90. Coded 1, Alcoholic = alcoholic drinker as defined by DSM3 diagnostic criteria; this group has an N=20. A Chi-Square analysis providing a Cramer's V statistic was performed to determine if these two different ways of looking at outcome were essentially the same or significantly different for this sample .

The Cramer's V was .70 ($p<.001$). 96 of 110 cases were coded similarly by the two procedures, that is into either the "poorer" or "better" recovery category. Also of clinical interest is the fact that 20 of the 34 drinkers (59%) can be classified as DSM3 "alcoholics". For those who returned to drinking, the odds appear to be in favor of re-experiencing alcoholic problems (see Table13).

Table 13
Chi-Square Analysis of Drinking Status by Alcoholic

		ALCOHOLIC DSM3 Alcoholic 0	1	RowTotal
DRINKING STATUS				
1.	NO	76	0	76
2.	YES	14	20	34
Cramer's V = .70		p<.001		

Further examination of Table 13 reveals that while the two outcome measures generally agree, there is also a relatively large discordant group of 14 cases that drink but are not alcoholic. The 14 exceptions were individuals who had drunk, but were not defined as alcoholics using DSM3 criteria. The severe split of 90/20 on the Alcoholic outcome dichotomy makes it less desirable as a single outcome dichotomy for statistical reasons. Given the generally high agreement between these two dichotomous measures and the practical and statistical merit of the Drinking Status split, the researcher decided to use Drinking Status as the single outcome measure in subsequent analyses. It should be noted that exploratory hypothesis testing using the Alcoholic outcome measure indicates that it does correspond to the Drinking Status measure. In other words, the two outcome variables yielded similar results, but Drinking Status was chosen as the single outcome measure to simplify the report of results.

Results of Hypothesis Tests

Hypothesis testing started with a discriminant analysis of the background variables on the outcome measure Drinking Status and proceeded to test the significance of the increase in the canonical correlation after adding in the

blocks of predictor variables. As explained above, beginning with only the background variables in the equation was necessary in order to derive the canonical correlation statistic for the "old step" in the formula. Table 14 provides the canonical correlations and associated level of significance for each step of the hypothesis test.

Looking at Table 14, the first step was to determine the canonical correlation for the Background variables. Background variables alone were statistically significant predictors of drinking status ($F = 2.92$, $p=.018$ with 5/88 d.f.). Second, while Background variables were controlled, AA variables were entered into the equation and the incremental change in the canonical correlation above Background variables was shown to be highly significant ($F=22.72$, $p<.01$ with 5/88 d.f.). In test 2, AA and background variables blocked together were forced into the equation providing a canonical correlation of .5641. This provided the "old step" canonical correlation to use in the formula when the critical hypothesis test of the impact of the Conventional Spiritual Awareness variables was assessed. The first actual test of the hypothesis is reported in test 3. Here the Conventional Spiritual Awareness variables, entered after background and AA variables have been entered and controlled, were shown to be highly significant ($F= 6.10$, $p<.01$ with 5/88 d.f.) predictors of outcome.

Test 4 was the second critical hypothesis test. Test 4 revealed that the Mystical Spiritual Awareness variables were not significant ($F= 2.12$, NS with 2/91 d.f.) predictors of outcome when all other predictor and background variables were controlled.

Next, a series of supplemental tests were done to examine the significance of Conventional spiritual awareness and AA variables when all other background and predictor variables were controlled. Test 5 was

necessary in order to derive an appropriate "old step" canonical correlation with which to measure the impact of Conventional Spiritual Awareness when controlling for the Background, AA and the 2 Mystical variables. It was also an opportunity to see if the mystical variables would be significant predictors when the conventional spirituality measures were not in the equation. In this test the two measures of mystical spiritual awareness were entered after background and AA variables were entered and controlled. This discriminant analysis yielded a canonical correlation of .5760 or a non significant ($F= 1.77$, N.S. with 2/91 d.f.) increment of .1190 above the canonical correlation for AA and Background variables alone.

The next test (6) controls for all Background, AA and Mystical variables while measuring the increase in the canonical correlation attributed to the Conventional variables. Even in this more restricted test the Conventional variables remain highly significant predictors of outcome ($F=6.35$, $p<.01$ with 6/87 d.f.).

Finally, test 7 explores the impact of the 5 AA variables while controlling for Background, Mystical and Conventional Spiritual Awareness variables. The 5 AA variables are shown to be highly significant predictors ($F=20.30$, $p<.01$ with 5/88 d.f.). This exploratory test suggests the relative importance or "priority" of AA when contrasted with the test of Conventional Spiritual Awareness variables (test 6) in predicting outcome. The AA block of variables has a much higher F, its incremental increase in the canonical correlation is substantially higher and AA consequently appears to be a far more powerful predictor of outcome than Conventional Spiritual Awareness. But tests 3 and 6 of the Conventional spirituality measures also suggested priority over AA. Clearly both Conventional and AA blocks of variables were statistically significant predictors of outcome. Both AA and Conventional Spiritual Awareness

measures exhibited unique and significant effects on outcome but the time ordering of these effects is still in question. A specialized analysis addressing this time ordering is reported later in this section (see Table 14).

Table 14

Incremental Increases in Canonical Correlations and associated significance level for each Hypothesis Test of Spiritual Awareness on Drinking Status

Test	Action Forced Entry	Increase in Canonical Correlation	Significance of F for Increment
Critical Hypotheses Tests			
1.	5 Background variables alone	.3771	F=2.92 p=.018 with 5/88 d.f.
2.	5 AA variables while controlling for background variables	.1870	F=22.72 p<.01 with 5/88 d.f.
3.	6 measures of Conventional Spiritual Awareness while controlling for background and AA variables	.0383	F=6.10 p<.01 with 6/87 d.f.
4.	Unitary Mysticism and Religious Mysticism while controlling for background, AA and Conventional Spiritual Awareness	.0119	F=2.12 Not Significant with 2/91 d.f.
Supplemental Tests			
5.	Unitary Mysticism and Religious Mysticism while controlling for Background and AA variables	.1190	F=1.77 Not Significant with 2/91 d.f.
6.	6 measures of Conventional Spiritual Awareness from Religious Well-Being to Spiritual Self Perception while controlling for Background, AA and Mystical Spiritual Awareness variables	.0383	F=6.35 p<.01 with 6/87 d.f.
7.	5 AA variables while controlling for Background, Mystical and Conventional Spiritual Awareness	.1309	F=20.30 p<.01 with 5/88 d.f.

In summary, the central hypothesis studied was that the higher the spiritual awareness of a recovering alcoholic, the better would be recovery from alcoholism. The results of this research tends to support this hypothesis at least in terms of the block of variables measuring conventional forms of spiritual

awareness . Mystical forms of spiritual awareness were not significantly related to recovery in this research.

Relative Strength of Variables in the Equation

In Discriminant Analysis the importance of an individual variable is not possible to accurately assess because all variables may be correlated and the value of the coefficient for any variable will fluctuate dependent upon what other variables are included in the function. However, some suggestion of the strength and direction of variables can be determined by careful analysis of the data beginning with a look at the group means (see Table 15).

Table 15
Mean Scores of Predictor variables broken down by Drinking Status outcome groups[a]

		Abstainers	Drinkers	Univariate F	Significance with 1/92 df
EDUCATION	Mean	6.07576	5.53571	3.78	.055
	SD	1.21921	1.26146		
INCOME	Mean	9.73027	7.57850	7.82	.006
	SD	3.30697	3.64875		
AGE	Mean	43.58153	44.75000	.18	.67
	SD	11.99140	12.53329		
MARITAL STATUS[b]	Mean	1.60606	1.67857	.43	.51
	SD	.49237	.47559		
SEX[c]	Mean	1.68182	1.85714	3.13	.08
	SD	.46934	.35635		
ATTITUDE TOWARD AA	Mean	3.76059	3.69521	.34	.56
	SD	.48724	.52850		
AA INVOLVEMENT	Mean	2.84055	2.05102	12.52	.0006
	SD	1.00163	0.95967		

Table 15 continued

Mean Scores of Predictor variables broken down by Drinking Status outcome groups[a]

		Abstainers	Drinkers	Univariate F	Significance with 1/92 df
AA BEFORE GATEWAY[d]	Mean	1.20	1.29	.59	.45
	SD	.42	.46		
AVERAGE # OF AA MEETINGS	Mean	8.62	6.54	.86	.35
	SD	9.75	10.41		
FUTURE AA[e]	Mean	1.86	1.64	6.21	.01
	SD	.35	.49		
RELIGIOUS WELL-BEING	Mean	4.91	4.39	4.08	.05
	SD	1.14	1.13		
FREEDOM	Mean	5.13	4.88	1.5	.22
	SD	0.92	0.90		
FRUITS OF SPIRIT	Mean	4.56	4.42	.72	.40
	SD	0.77	0.65		
IMPORTANCE OF RELIGION	Mean	2.81	2.64	.34	.56
	SD	1.31	1.31		
ATTENDANCE AT WORSHIP	Mean	2.64	2.49	.19	.66
	SD	1.57	1.48		
PERCEIVED SPIRITUALITY	Mean	3.36	3.25	.20	.66
	SD	0.95	1.29		
RELIGIOUS MYSTICISM	Mean	3.87	3.58	2.00	.16
	SD	0.97	0.92		
UNITARY MYSTICISM	Mean	3.16	3.25	.18	.67
	SD	0.98	0.78		

[a] Of 110 cases processed 16 had at least one missing discriminating variable and were excluded from the analysis. Means are based on this N of 94 (66 abstainers group 1, 28 drinkers group 2).

[b] Marital status is coded 1=not married, coded 2=married.

[c] Sex is coded 1=female, coded 2=male.

[d] AA Before Gateway is coded 1=no, 2=yes.

[e] Future AA is coded 1=no, 2=yes.

Mean scores are excellent measures of central tendency but they do have certain limitations that require caution on the part of the reader. Means do not explain the unique impact of a variable while controlling for other predictor

variables. Therefore, they can be misleading and are only suggestive. Differences in mean scores may be related to other variables not included in the model studied. Means can also be skewed by extreme scores. As noted earlier, and as indicated by the standard deviation statistics in the table, these mean scores approximate normal distributions and may be viewed as reliable measures of central tendency.

With the above cautions in mind, a glance at Table 15 reveals several areas where abstainers (group 1) appear to differ noticeably from drinkers (group 2). The first area is in education with abstainers reporting more formal education than drinkers ($F=3.78$, $p=.06$). Income is also a major area of difference between the groups with abstainers reporting significantly more income than drinkers ($F=7.82$, $p=.006$). Abstainers are more likely to be female than drinkers ($F=3.13$, $p=.08$). Involvement in AA is a major difference with abstainers reporting more involvement in the various aspects of the AA fellowship than drinkers ($F=12.52$, $p=<.001$). Plans to attend AA in the future vary significantly with abstainers more likely to plan attending future AA meetings ($F=6.21$, $p=.01$).

In terms of measures of spiritual awareness there were also some noticeable differences. Abstainers scored higher on the Religious Well-Being portion of Ellison's Spiritual Well-Being Scale ($F=4.09$, $p=.05$). This difference suggests that abstainers have a greater conventional spiritual awareness than drinkers. This tendency toward greater conventional spiritual awareness for abstainers is supported by slight but consistent increases in scores on the other measures of conventional spiritual awareness. Mystical Spiritual Awareness in its more common form is measured by the variable Religious Mysticism. Religious Mysticism was perceived somewhat more strongly by abstainers than drinkers ($F=2.00$, $p=.16$). These mean scores suggest that the more common

religious forms of spiritual awareness are found with greater frequency in the abstainer group.

The next step in assessing the relative contributions of these variables is an examination of the standardized canonical discriminant for each variable. It should be recalled that in discriminant function analysis coefficients are selected so as to maximize correct classification when predicting a nominal criterion variable. In this case the weights for each variable can be compared with one another in order to determine which of the predictor variables are most effective as predictors within the context of the discriminant equation. Standardized discriminant function coefficients provide a measure of the strength of each variable but Nourusis (1985, p. 91) reports that the signs of the coefficients are "arbitrary"; paradoxical signs probably reflect high intercorrelations between variables. The variable with the largest magnitude in the function is AA Involvement. However, we know that involvement in AA is highly intercorrelated with the measure of average number of AA meetings the subject reported attending. This measure, Average # of Meetings, has the fourth largest magnitude even though it is negatively signed. Education has the second largest magnitude; it is intercorrelated with the third largest variable Income; these two variables are paradoxically signed. Likewise Fruits Of The Spirit and Freedom appear to have strong magnitudes but we know they are intercorrelated to a high degree. In short, these standardized coefficients are more useful in determining the relative predictive strength of each variable in the discriminant function equation than they are in determining any directional impact upon outcome (see Table 16).

Table 16
Standardized Canonical Discriminant Function Coefficients in Analysis of Drinking Status[a]

		Function 1
1	EDUCATION	-0.8605
2	INCOME	0.8037
3	AGE	0.0631
4	MARITAL STATUS	-0.3810
5	SEX	-0.3467
6	ATTITUDE TOWARD AA	-0.1902
7	AA INVOLVEMENT	0.9981
8	FUTURE AA	-0.3189
9	AA BEFORE GATEWAY	-0.0555
10	AVERAGE # AA MEETINGS	-0.5280
11	FUTURE AA	0.4448
12	RELIGIOUS MYSTICISM	0.2311
13	UNITARY MYSTICISM	-0.2919
14	RELIGIOUS WELL-BEING	0.0228
15	FREEDOM	0.3742
16	FRUITS OF SPIRIT	-0.4772
17	IMPORTANCE OF RELIGION	0.2095
18	ATTENDANCE AT WORSHIP	-0.3328
19	PERCEIVED SPIRITUALITY	-0.1495

a *Interpretation of the magnitude and direction of each variable is not straightforward-see text.*

Time Ordering Effect

Time ordering questions discussed earlier (p. 83) were also explored. When looking at the role that spiritual awareness may play in recovery, time ordering questions arise: Did AA lead to spiritual awareness and then to

recovery? Conversely, did spiritual awareness lead to AA and then to recovery? In terms of mystical spiritual awareness 59 respondents reported mystical experiences, but missing values on Age and another item measuring when they first attended AA, which were used to compute the variables used in this time ordering problem, brought the number of valid cases available for analyses down to 55. Of these 55 cases, Forty (40) respondents were determined to have had a mystical spiritual experience prior to their involvement in AA and 15 were determined to have been involved in AA prior to the time of their first mystical experience.

This 40 to 15 split was too severe for reliable statistical analysis so, in an effort to increase the size of the comparison groups, cases were added to the analysis if they responded to either of two items measuring the relationship between AA and Religious involvement. One item called "Religion Encourages AA" measured how much religion, prior to AA, encouraged AA participation. Another item called " AA Encourages Religion" measured how much AA experience encouraged participation in organized religion. The sample was partitioned into two groups: The first group was identified as "Religion leads to AA". It was composed of respondents determined to have had a mystical spiritual experience prior to their involvement in AA and those who reported that their involvement with religion before AA encouraged them to participate in AA (N=52). The second group, identified as "AA leads to Religion" was composed of those determined to have been involved in AA prior to the time of their first mystical spiritual experience and those who reported that their AA experience encouraged them to participate in organized religion (N=39).

For the 52 respondents who reported that "Religion leads to AA" correlations between conventional spiritual awareness (as measured by the global 24 item conventional spirituality scale which includes the Religious Well-

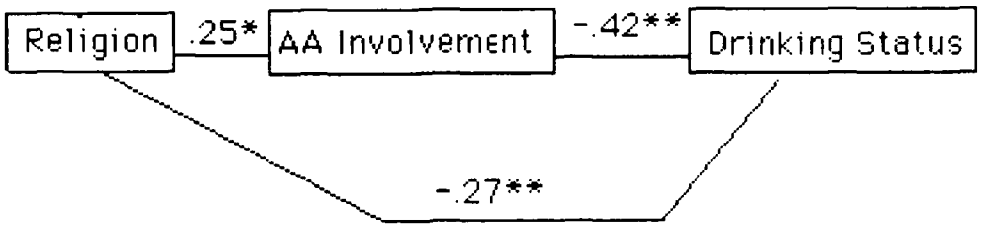
Being, Freedom and Fruits of the Spirit scales), AA involvement and drinking status were all significant ($p<.10$ two tailed test). When a partial correlation controlled for the intervening mechanism of AA involvement the relationship between conventional spiritual awareness and drinking status diminished to a non significant ($r=.-19$, $p=.18$) level. This decline in significance after a partial correlation controlled the intervening variable tended to support the model of "Religion leads to AA" for this group. When the inverse model of "AA leads to Religion" was tested, using this (N=52) group, the relationship between AA involvement and Drinking Status remained highly significant before and after partial correlation controlled the intervening variable ($r= -.42$, $p=.001$ and $r= -.38$, $p=.005$ respectively) . This lack of decline in significance after a partial correlation indicates that, for this group, the explanatory time ordered model most consistent with their report is "Religion leads to AA" (see Figure 2).

For the 39 respondents who reported that "AA leads to Religion" correlations between conventional spiritual awareness, AA involvement and drinking status were all significant ($p<.10$ two tailed test). When a partial correlation controlled for the intervening mechanism of conventional spiritual awareness the relationship between AA involvement and drinking status diminished to a non significant ($r= -.16$, $p=.31$) level. This decline in significance after a partial correlation controlled the intervening variable tended to support the model of "AA leads to Religion" for these cases. However, when the inverse model of "Religion leads to AA" was tested using this (N=39) group the relationship between conventional spiritual awareness and Drinking Status became non significant after partial correlation controlled the intervening variable ($r= -.25$, $p=.12$). This decline in significance of the inverse model, after a partial correlation, indicated that for this group the "AA leads to Religion" time ordered model is <u>not</u> consistent with their report (see Figure 2).

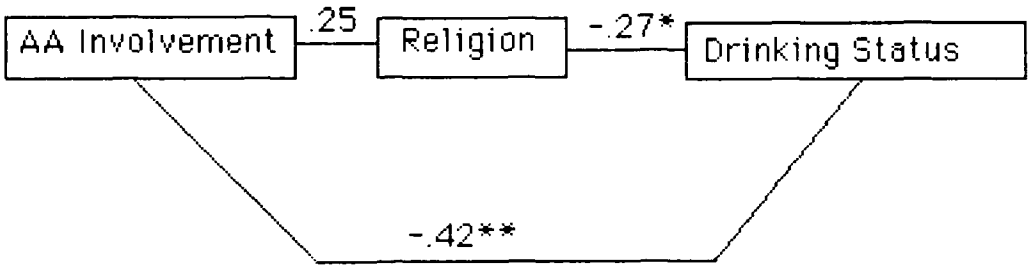
Any interpretation of this time ordering test must be done with caution. The selection of respondents for each group, based upon responses to different items, was complicated and some of the respondents may appear in both groups. Additionally, N's are small and the differences between the partial correlations for each group are not very large. With the above cautions in mind, this analysis tentatively suggests that it is the influence of conventional spiritual awareness prior to AA involvement that impacts recovery. Following through with this logic, AA may be seen as an organization for development or refinement of spiritual awareness.

Note that this time ordering analysis is based upon a subset of the sample who reported their age at first spiritual experience. In the context of the questionnaire they were responding to spiritual experiences of a mystical variety. Age of first exposure to conventional spiritual experiences through organized religion was also obtained. However, too few (2) of the respondents had been exposed to AA prior to organized religion to explore time ordering relationships. In short this time ordering analysis, while fulfilling the requirements of a test, only suggests that spiritual awareness may precede AA in the recovery process (see Figure 2).

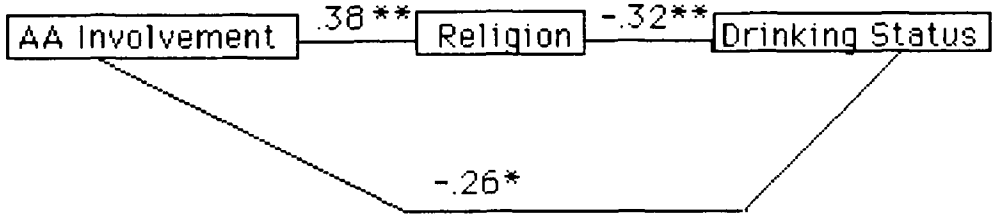
Figure 2
Partial Correlations controlling for AA involvement and conventional spiritual awareness in sample of alcoholics post treatment



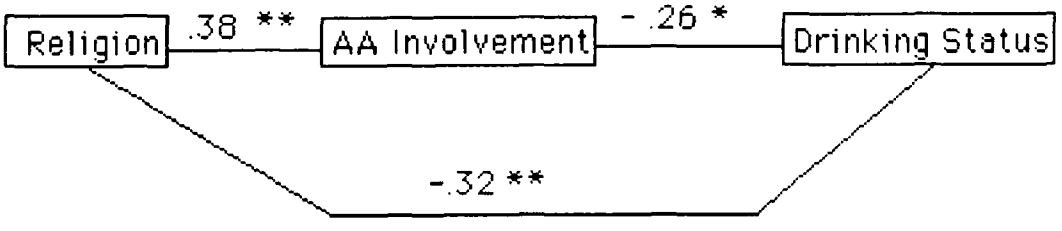
Partial correlation = -.19
Religion leads to AA group (N=52)



Partial correlation= -.38**
Religion leads to AA group (N=52)



Partial correlation= -.16
AA leads to Religion group (N=39)



Partial correlation= -.25
AA leads to Religion group (N=39)

*p<.10
**p<.05 two tailed tests

In summary, Discriminant analysis of the data in this study supported the hypothesized relationship between spiritual awareness and recovery from alcoholism. The conventional orthodox measures of spirituality appear to be found stronger and with more frequency than mystical measures of spiritual awareness in this sample of essentially white, middle class, Catholic, male respondents . Time ordering concerns were explored with partial correlation techniques. The notion that soiritual awareness precedes AA involvement was tentatively supported. AA may serve to develop spiritual awareness in a manner which leads to recovery.

Exploratory Analysis

There is a great wealth of data available for exploration in this research. There are sets of variables that measure the respondents' perception of the extent of love received as a child. Another set of variables measures the respondents' perception of the extent of parental drinking. The top three drugs the respondents have chosen to use in the past were also determined with another set of variables. There are measures of the total number of days post treatment that the respondent was abstinent from alcohol or drinking with no problems. And, in keeping with the suggestions of Polich et al. (1981), there is also a measure of the periods of abstinence since treatment. An examination of the bivariate correlations reveals a number of intriguing relationships worth further study. For the sake of brevity only a few of the more thought provoking will be reported (all correlations reported are two-tailed levels of significance with $p<.01$ unless noted otherwise). Appendix E contains a correlation matrix for all 36 variables reported in this study.

Time since completion of treatment

The sample for this study was drawn from the population who had completed treatment over a span of four years. The logic behind this selection process was to allow for an exploration of the idea that both spirituality and recovery might increase over time post treatment. The sample was examined over time with the variable "Completed Gateway" and was also broken down into separate year-groups. Neither way of analyzing the sample revealed any significant relationship between time and either outcome or spirituality. Indeed, there were not even trends in the data (in either direction) suggestive of any linear effect of time.

Relationships to recovery

Income, AA Involvement and Future AA, were included in the hypothesis tests reported earlier and all were correlated significantly ($p<.01$ two tailed test) with recovery . Income was negatively correlated with Drinking Status ($r= -.25$, $p=.009$) indicating a strong linear association between financial resources and abstaining. The AA measures of Involvement ($r= - .32$, $p=.001$) and plans to attend AA meetings in the Future ($r= -.28$, $p=.003$) also correlated strongly with abstaining.

The life satisfaction measure "Existential Well-Being" correlated ($r= -.34$, $p<.001$) with Drinking Status. Apparently those who are abstaining from alcohol are significantly more satisfied with their lives than those respondents who reported drinking. This research did not pursue the temporal roles or causal paths of these two variables.

Respondents who selected opiates ($r=.27$, $p=.004$) and sedative hypnotic type drugs like Qualudes ($r=.23$, $p=.015$), when asked "what have been your drugs of choice", were significantly more likely to report drinking

during the past year. An explanation for this relationship between drugs of choice and drinking may lie in the similar analgesic effects of all three drugs. It is possible that people who prefer these drugs are perceiving intense psychological and/or physical pain.

Relationships to Spirituality

The greater the conventional spiritual awareness the greater were measures of life satisfaction and encouragement by AA toward involvement in religion. The Religious Well-Being scale ($r=.53$, $p<.001$), the Freedom scale ($r=.52$, $p<.001$), the Fruits of the Spirit scale ($r=.51$, $p<.001$) and the Spiritual Self-Perception scale ($r=.29$, $P<.01$) all correlated significantly with the Existential Well-Being scale. These correlations suggest that conventional spirituality is perceived to a greater degree by those who are more satisfied with their lives. As the perception that AA encourages religious involvement increases , Religious Well-Being ($r=.28$, $p<.01$), Importance of Religion ($r=.44$, $p<.01$) and Attendance at Worship ($r=.50$, $p<.01$) also increase.

Other Relationships

The greater the perception of being loved by parents the greater the measures of life satisfaction and fruits of the spirit. "Mothers Love" correlated significantly ($r=.26$, $p=.008$) with Existential Life Satisfaction and Fruits of the Spirit ($r=.34$, $p<.001$). "Father's Love" also correlated strongly ($r=.34$, $p<.001$) with Existential Life Satisfaction and Fruits of the Spirit ($r=.26$, $p=.007$). These relationships probably reflect the conventional wisdom that parental love is related to self esteem and consequently to life satisfaction. An examination of the Fruits of the Spirit items shows that they are the sort of descriptions one

might expect from someone who is quite satisfied with life and the two items are strongly (r=.51) intercorrelated. It should be noted that when exploratory partial correlations simultaneously controlled for Income, Education, Sex, Religion and Attendance at Worship, the relationships between parental love and these two measures of life satisfaction became even more significant. The obvious prior time order of perceived parental love is one aspect of these correlations which makes them so interesting.

A majority of the sample (N=58) reported experiences of a mystical nature. This group also shared other characteristics of interest. The number of spiritual experiences reported was positively correlated with education (r=.36, p=.007). The number of spiritual experiences was also correlated to race, with blacks tending to report a greater number of spiritual experiences (r=-.40, p=.002). These relationships may be a function of (1) greater exposure to eastern thought and mystical sorts of experiences via higher education and (2) the more affective style of religious worship often found in black churches.

Several correlations apparently reflect the interaction between AA and conventional religion as suggested in the time ordering analysis above. AA involvement correlated with a measure of how much AA encouraged involvement in organized religion (r=.32, p=.001). The intention to attend AA in the future (r=.38, p<.001), the average number of AA meetings attended in the past six months (r=.27, p=.005), the attitude toward AA (r=.26, p=.007) and the perception that the spiritual emphasis of AA encouraged involvement in AA activities (r=.41, p<.001), all correlated with a measure of AA's encouragement of involvement in organized religion.

Women were more deeply involved in AA (r= -.26, p=.008) than men. This sex difference may reflect the socially accepted norm of women doing more for others than men. AA is a service program with outreach to others, in

one form or another, an integral part. This finding is not surprising since women have been found to be more frequent users of a variety of services (personal communication with Dr. Barbara Shore, August 24, 1989).

Finally, the two variables measuring the degree to which respondents perceived their parents drinking, ranging from "never" to "like an alcoholic", were of interest. Because exploratory bivariate correlations for these variables appear to be revealing some interpretable patterns, correlations reported between these and other variables will, in some cases, exceed the .01 significance level we have set as a general criterion for reporting these exploratory relationships.

First, the greater the level of mother's drinking perceived, the higher the level of scores on measures of Unitary Mysticism (r=.27, p=.005) and Religious Mysticism (r=.23, p=.019). Since mystical interpretations of spiritual awareness were infrequent in this sample, this correlation is particularly interesting. Despite Judeo Christian paternalism, conventional wisdom indicates that it is often the mother, in this society, who encourages spiritual education and religious involvement. It may be that with mother incapacitated by alcohol exposure to conventional religious interpretations of spiritual experience was delayed or neglected. Positive correlations between the perception of Mother's drinking and age of first exposure to organized religion seem to support this idea (r=.22, p=.02).

Father's drinking also appears to influence religious training and exposure to conventional spiritual awareness. The perception of Father's drinking negatively correlates with the importance of religion (r= -.24, p=.01) and attendance at worship (r= -.32, p=.001). The perception of Father's drinking positively corresponds with age of first exposure to organized religion (r=.19, p=.047). These relationships may be explained in part by the Judeo Christian

paternalism prevalent in our culture. With father incapacitated by alcohol, the child's involvement with conventional religion is delayed or ignored.

An alternative explanation for these correlations between perceived parental drinking and measures of spiritual awareness may lie in the values shared by certain subgroups in our society. These correlations may reflect the acceptance of a lack of religious values and of excessive drinking as normal behavior by certain subgroups. Further research is necessary to clarify these relationships.

Not surprisingly, parental drinking influenced the perception of parental love. Mother's drinking was negatively correlated with the perception of Mother's love ($r = -.34$, $p < .001$) and negatively correlated with perception of Father's love ($r = -.21$, $p = .028$). The perception of Father's drinking negatively correlates with the perception of Father's love ($r = -.26$, $p = .007$). In addition the age of the respondent was negatively correlated ($r = -.34$, $p < .001$) with Mother's drinking. Younger people, perhaps because their mothers came from a younger generation where use of alcohol by females was relatively more accepted, tend to report higher levels of maternal drinking.

The perception of parental drinking was also correlated with outcome. Mother's drinking correlated with drinking post treatment ($r = -.22$, $p = .024$). This correlation may be explained by the genetic theories of alcoholism as evidence of maternal alcoholism influencing the respondents apparent inability to abstain post treatment.

These measures of perceived level of parental drinking seem to have deep and wide ranging relationships to other measures throughout this study and appear worthy of follow up research.

Discussion

This study began as an exploration of the role that spiritual awareness plays in recovery from alcoholism. The significance of the problem of alcoholism was described, a review of the literature was provided, spirituality was defined, a theoretical model connecting spirituality to recovery was explicated and a method to test the hypothetical relationship was developed. Results reported included: descriptive, bivariate and inferential statistics; descriptive results of key variables; psychometric analysis of scales; key bivariate relationships; a didactic prologue to, and specific application of, discriminant analysis in this study; the logic leading to selection of a final outcome measure; results of hypothesis tests; the relative strength of predictor variables; an exploration of time ordering questions and , finally, a review of some of the more interesting exploratory findings. The following section will summarize and discuss this study in relation to its relevance to both theory and practice. The limitations of this research will also be explained.

The central hypothesis of this study was that the higher the spiritual awareness of a recovering alcoholic the better would be measures of recovery from alcoholism. The theoretical connection between spirituality and recovery has been discussed at length in the literature but this research is the first attempt found by this researcher to measure it. Spiritual awareness was conceptualized as a blend of both mystical and conventional interpretations of spiritual experience. Separate measures were used to differentiate mystical and conventional spiritual awareness and, after selecting the best measure of recovery for this sample, both types of spiritual awareness were tested with background socio-demographic variables and AA involvement measures controlled.

Analyses of data collected on a random sample of 110 persons treated for alcoholism at Gateway Rehabilitation Center between 1984 and 1988 revealed that conventional spiritual awareness was significantly related to recovery but mystical spiritual awareness was not. While a majority of the sample (59) reported intense spiritual experiences of the mystical variety, their scores on measures of mystical spiritual awareness did not correlate to recovery to a significant degree. This may have been a reflection of the predominantly Catholic, middle class characteristics of the sample. People with this background would be expected to tend toward interpretation of spiritual experiences within the framework of their religious training. The fact that measures of mystical interpretations of spiritual awareness were not significant is noteworthy; but, it does not negate the entire hypothesis because, the more traditional, orthodox religious "conventional" interpretations of spiritual experience were found to be significantly correlated with recovery from alcoholism.

One prior empirical study remotely suggested such a connection. Based upon a sample of 67 male drinkers drawn from the general population, Leonard, Howard and Blane (1988) reported that "subjects who acknowledged any religious preference tended to manifest somewhat lower (Preoccupation with Alcohol) scores than subjects who endorsed no religious preference" (p.394). Beyond this somewhat tangential reference there is little prior empirical evidence to suggest a significant relationship between spiritual awareness and recovery.

Time ordering analyses of these data on a subgroup of these post-treatment alcoholics suggested that spiritual awareness might precede and then, in an interactive fashion, be developed by AA. Based upon this study AA may be conceptualized as a program which, through its unique 12 step

structure, encourages latent spirituality and places in perspective the application of spiritual awareness to the problem of alcoholism. The temporal role of AA is as an intervening variable between conventional spiritual awareness and recovery.

Supplemental tests using the discriminant analysis procedure indicated that AA involvement, with the variance attributed to all background and spirituality variables controlled, was a strongly significant predictor of recovery. This finding of AA's effectiveness supports the earlier work of Chapman and Huygens (1988). Clearly, for this sample, AA involvement was an important ingredient in their recovery process.

Certain limitations apply when generalizing the results of this survey to other populations, these limitations will be discussed first then the implication of this research for theory and practice will be discussed.

Limitations

First this sample was biased toward those respondents stable enough to receive and respond to a mailed questionnaire. This may not be a strongly significant bias given the fact that current addresses were available for all but 124 (less than 5%) of the people treated during the four year period. The presence of a current address implies some stability relative to other populations of alcoholics studied (cf Polich et.al 1981). However, merely having a valid mailing address is not sufficient to conclude that the recipient is sober enough to decipher and respond to a lengthy questionnaire covering a complex and unusual subject like spirituality. It should be noted that earlier Gateway (Koeske, 1975) and Chit Chat Farms (Baum et.al., 1977) studies yielded high response rates and reported similiar results in the area of recovery (i.e. 60-70% abstinent on follow-up). This fact provides further support for the

vaildity of the findings in this study. The sobriety of the recipient may also have influenced the return rate of 28%. Other sources of bias may be education, interest in the topic, recall of information and social desirability. These sources of bias have all been described in detail by Fowler (1986).

Educational level has been identified as a common source of bias in mailed surveys. In this sample respondents tended to be high school graduates with some college level education. A comparison of the percentages of this sample found in each category of education (see Table 6) with the percent of the U.S. population found in similar categories (World Almanac, 1987, p. 212) suggests that the Gateway sample may indeed have a greater proportion of people with exposure to some college education than the general population. There may be some reason to suspect that the Gateway population differs significantly from the general population in terms of education. The majority of Gateway clients have some source of third party insurance, usually through their place of employment . Being employed may suggest a relatively greater level of education, especially, in this economically depressed area. We may tentatively conclude that this survey is somewhat biased toward people with relatively more exposure to college than the general population but, this bias is probably reflective of the Gateway population. Further strong support for the notion that this sample is representative of the Gateway population is enclosed in Appendix F.

Interest in the topic may also bias a survey. The cover letter (Appendix A) indicates that the topic of the survey is spirituality and alcoholism. All who received the letter should, by definition, have been interested in alcoholism; fewer people may been interested in spirituality. The questionnaire was constructed in a way to encourage its completion by asking initial questions that should have been applicable to all respondents; this should have minimized

this "interest in the topic" bias.

Recall of information may also have been a source of bias.Several of the questions asked for specific dates and other rather specific data in an effort to address time ordering concerns. While the questionnaire was designed to facilitate recall by grouping questions together in order to stimulate associations, it is probable that some respondents noted the extent of detail required to complete the questionnaire and decided not to respond.

Finally, social desirability is a source of bias often found in survey research. Sensitivity to this bias led, in part, to the selection of the self-administered mail survey design of this research. Fowler (1988) cites Hochstim (1967) as evidence for selecting a self administered mail survey, over other survey designs, to avoid the bias of social desirability. In addition, the extra steps taken to assure respondents total anonymity were designed to reduce the potential for someone not to respond, or under-report, out of fear of embarrassment. In short, this source of bias was anticipated and steps were taken early in the research design process to eliminate or curtail it.

Given these qualifications, the 110 respondents may, with some caution, be viewed as a representative sample of the population of 2,721 people treated for alcoholism by Gateway Rehabilitation Center between 1984 and 1988. Generalizations beyond this population would be risky from an empirical point of view. However, we can speculate on the relevance of these findings to theory.

Theory

The central thesis to all Jung's work is that man, to be whole and healthy, must strike a psychic balance. Similar concepts are central to the biological study of homeostasis. In philosophy Aristotle's "Golden Mean" also prescribes

a balanced approach to life. Eastern philosophies teach in terms of a balance between the eternal opposites Yin/Yang Life/Death Heaven/Earth. And all these ways of explaining man's equilibrium (or lack of it) come with their attendant prescriptions for diet, ethics, rest, play and work. The common goal for all the above theories and approaches to knowledge is attainment of a meaningful life.

This study supports the Jungian notion that people with greater awareness of the spiritual, unconscious elements in life will be relatively more healthy and whole than others. A healthy, meaningful life is something those stricken with alcoholism probably have too much pain too pursue, at least initially. But, the extent of their recovery, the distance from their pain, may be reflected by their scores on the measure of Existential Life Satisfaction. In this study, the lives of those with greater conventional spiritual awareness appear more meaningful, as measured by the Experiential life satisfaction Scale, and, of course, they tend to be abstaining from the use of drug alcohol.

The form of spiritual awareness that was apparently most significant in their recovery process was of a conventional nature. In this view man is imperfect, God is mysteriously perfect. Man approaches God as a mortal sinner with faith in God's omnipotent power. It may be this faith, developed, supported and focused by involvement in AA, that leads to a relaxation of conscious control over alcoholism.

The need to relax permeates the alcoholic's world and AA provides encouragement to do just that. AA slogans like "Let go let God" are seen in meetings, on car bumpers and heard about in nearly every "story" told at AA meetings. "Easy does it" and "One day at a time" are both signals to loosen the conscious grip on life, so characteristic of the alcoholic. And, it is (according to Jung) conscious relaxation that is key to connection with the unconscious. It is

to the unconscious mind that the alcoholic leaves the problem of alcoholism; consciously he is aware of the support and stability of the fellowship of AA.

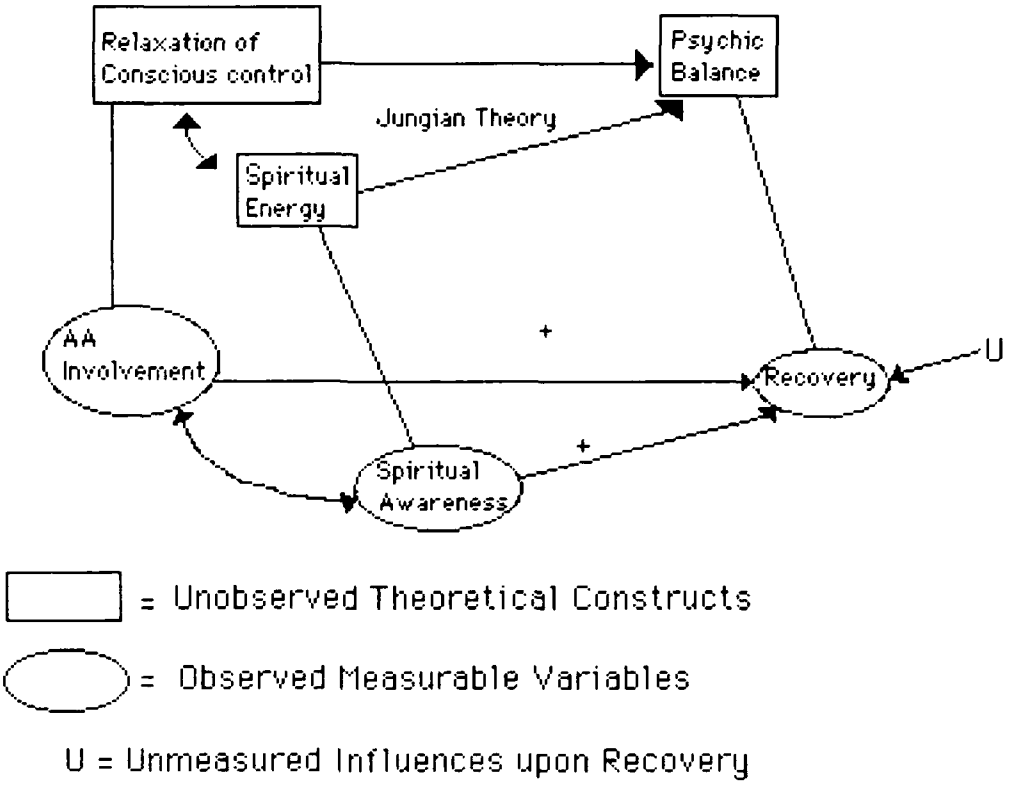
The structure of meetings, refreshment, support and comradery offered by AA allows the alcoholic a brief respite. Permission is given to tap the ultimate source of power and authority, "Almighty God". The "Serenity Prayer" for help, so common in AA meetings, implies a formula of loss of conscious control (i.e. "the serenity to accept the things I cannot change") followed by conscious activity (i.e. "the courage to change the things I can") and then enlightenment (i.e."the wisdom to know the difference").

This formula for enlightenment is found in the worlds' great religions and Jungian analytic psychology. An argument for the existence of a basic human drive for structure and connection with the spiritual may be made based upon the proliferation of religions and spiritual philosophies throughout the world. This research may be a tentative early step toward providing modern empirical support for the existence of such a drive and its relation to recovery from alcoholism.

To be fair, the above interpretation of the causal process leading to recovery may be overstated. One might argue that it is not an innate human drive for structure and connection with the spiritual that is the prime mover in this process but rather a form of selection, where those more thoroughly socialized to value social respectability and adopt conventional religious ideology and practice are also those more likely to recover from alcoholism. Such a view might be supported by the positive correlations between the love perceived in childhood from parents (the earliest socializers) and the perceptions of conventional spirituality measured in adulthood. Perhaps along with love these parents do inculcate a value for conventional religion. If this were so then one might expect those with higher measures of spirituality and/ or

recovery to have been exposed to organized religion at an earlier age. But, an examination of the correlations between "Age First Exposed to Religion" and these other variables reveals no relationships that would support such an argument (see Appendix E for these correlations). From a Jungian perspective these causal concerns are of less interest than the outcome. Jung was interested in a prospective psychology that built connections between the conscious and unconscious mind so, with conscious and unconscious resources working toward the same goal, the person has a more stable foundation upon which a balanced, sober life may be built.

Figure 3 provides a perspective on the conceptual relationship, supported by this research, between recovery and Jungian theory. Note that the figure contains the measured constructs of Spiritual Awareness, Recovery and AA Involvement as well as the underlying unmeasured theoretical constructs of Spiritual Energy, Relaxation of Conscious Control and Psychic Balance. The unmeasured influences upon recovery are also indicated. The positive signs (+) indicate the positive correlations between AA Involvement/Spiritual Awareness and Recovery. Double headed arrows suggest the reciprocal relationship between variables and lines with no arrows connect the unobserved theoretical constructs with their corresponding observed variables.



CONCEPTUAL RELATIONSHIP BETWEEN ALCOHOLISM RECOVERY AND JUNGIAN THEORY

Figure 3 Conceptual Relationship between Alcoholism Recovery and Jungian Theory

What makes this research interesting is that the influence of an awareness of the spiritual realm has been linked, via AA, with recovery from a life threatening illness in a scientific way. It is no surprise to religious people, or those involved with AA, that this connection has been examined and found significant. Nor would it be a surprise to many psychologists. Gerald May (1982), for example, contends that "much of psychology is really misplaced spirituality" (p.111). But, as Father Leo Booth (1988) bemoaned, much of the treatment field is loathe to incorporated the topic of spirituality into their more "scientific" approaches to treatment. The role and function of AA in this process

is also of immense interest. AA has been describing itself as a "spiritual program of recovery" but this is the first time that the relationship between AA and spirituality has been empirically explored. While this research contributes to theory, especially Jungian, its greatest benefit may well be in the area of practice.

Practice

Clinicians, faced with the difficult prospect of establishing rapport and alliance with alcoholic and other troubled families, will find some helpful clues in this research. First, clinicians will be interested to note that this research provides an objective, scientifically based, rationale for including a measure of the extent of involvement in organized religion as part of the standard needs assessment that is routinely accomplished with every new family.

The relationships between alcoholism and other drug abuse, family dysfunction of every variety, depression, suicide and so many other human woes is well known; but the key variables related to recovery, of which spiritual awareness appears to be one, are less well known. Spiritual awareness has, in general, been shied away from by psychologists and social workers (the front line of any community mental health center). Evidence for this assertion may be seen in the proliferation of ads in the telephone directory for "Christian Counselors", "Spiritual Therapists" and the two mainstays of the religious community, Jewish and Catholic Family Services.

The reasons for this reluctance to address spiritual matters by community mental health professionals are complex but a large part of the explanation may lie in the fact that the training ground for mental health workers is generally in state supported schools and institutions. Our society's doctrine of a separation between church and state has permeated these institutions to the degree that

anyone trained in them is bound to pick up the covert, if not overt, message that delving into a client's religious beliefs and behaviors is simply "unprofessional" (unless, of course, the client is determined to be "psychotic" in which case the "religiosity" is examined in great detail for "delusional content"). In many state supported mental health clinics religion, like opium, is commonly thought of pejoratively as a "crutch".

This research suggests that religious preference, along with a host of other items related to measuring a client's spiritual awareness, should be gleaned during the initial assessment period and viewed by the clinician as a potential major resource for health. The development of this resource, like any other client "strength", requires acknowledgement and reinforcement by the clinician. Clinicians, concerned about possible repercussions from state agency administrators over the focus on religious issues, may wish to refer to this research and the recent requirement by the Joint Commission on Accreditation of Hospitals (JCAH 1987, Standard AL.2, p.228) for drug and alcohol treatment facilities to assess their clients' "spiritual orientation".

Those who still express concern that clinicians might impart their own values in so private an area might consider that spiritual beliefs and behaviors are no less private than sexual preferences and activities and these topics are standard grist for the therapeutic mill. Certainly clinicians are subject to error, as evidenced by the requirements for malpractice insurance, however, there is no reason why clinicians cannot be trained to avoid imposing their values on others while serving their clients with distinction. Instructors of entry level counselors would be well advised to develop their pupils' skills as nonjudgemental empathetic listeners and curious open-ended questioners per the works of any number of well published professionals (cf. Carkhuff, R.R. 1969 a, 1969b, 1969c, 1970, 1971, 1973; Kagan, et al. 1969; Rogers, C.R. 1961,

1965;Truax, C.B. 1970a, 1970b, 1970c, 1970d, 1971).

While a thorough review of the above works on counselor skills training is beyond the scope of this paper a brief "recipe" for engaging clients in the area of their religious beliefs follows. The ingredients in this recipe for effective, non judgmental, interaction by the clinician are necessarily only generally described. Clinicians interested in exploring spiritual issues in depth or feeling a need for a cotherapist or referral resource should seek out members of the clergy, pastoral counselors and others who can relate to clients in a wholesome non-judgmental way. Whether the change agent is clinician or clergy the ethical goal remains the same: enhance, encourage and nurture the clients own ability to define the nature of his distress and take the steps necessary to improve his situation.

First, there must be a sense of personal regard for the client. This quality of "personal regard" is likely to be present if the clinician can honestly say to himself "Here is another human being in distress- what a remarkable privilege that he has come to me for help and understanding. I am honored and deeply grateful for this opportunity to share, at such a deep and meaningful level, the thoughts, feelings hopes and concerns of this person". If a clinician can honestly say those words they may be said to at least be in the proper frame of mind to exhibit "personal regard". The next step also requires some "self talk" and a level of skill that will not be gleaned from reading alone.

The next step is "empathetic understanding". To empathize, to place oneself in another's shoes, requires an almost Zen like distance from the myriad of items that make up our own day to day personal agendas. The clinician may learn these skills through close supervision or training with video techniques and feedback. But prior to building the skill the self talk, the mind set, may go like this: Now that this other person is here I must listen with my eyes, see with

my ears, sense with every fiber of my being in order to understand what this person is experiencing. Still there is room for error as words uttered by the client pass through the clinicians own "filters" therefore techniques like "reflective listening" (see the Carkhuff and Truax references) "identifying feelings, searching for undercurrents and identifying values" all are skills necessary for effective communication between clinician and client. The third ingredient binds the first two together in a way that makes interaction with the client on such sensitive issues possible. This ingredient is called genuiness.

To be genuine, to be perceived as real to another is probably best described by the child's story The Velveteen Rabbit (Williams, 1983). Carl Rogers (1961,1965) also speaks eloquently of the need for clients to perceive clinicians as genuine. The Velveteen Rabbit learns that genuiness, or "being real", only comes after being loved so much that the hair falls out and the skin starts to sag. Hopefully training techniques are available to speed up this process of becoming "real" for our young clinicians, but the reality may be that the physical appearance of the clinician does play an important role in the "perception" of being genuine, honest and real.

The fourth and final ingredient, specific concern, should only be addressed after the first three are firmly in place. The credibility of the clinician as a non-judgmental, empathetic listener who is genuinely concerned with enhancing the goals and values of the client (rather than the clinician's own) simply must be in place before specific concerns are addressed. Specific concerns derive from the clinicians knowledge base. Perhaps, the client has revealed a life style that, for example, would place him a risk for AIDS. The clinician only now may suggest that an AIDS test might fit in with some of the client's goals and values. Another example, more relevant to this research, may be the alcoholic client who has identified the goal of abstaining from alcohol,

but complains that "all my friends are drunks". In this case the clinician might point out his concern that the client's need for friends will undercut his goal of abstinence if an alternative source of non-drunk friends can't be identified. Then the two can work together to brainstorm possible sources on non drunk friends (e.g. church or AA).

The above four ingredients, personal regard, empathetic understanding, genuiness and specific concern are necessary for clinicians to effectively deal with the issue of spirituality and any other issue of meaning for that matter. Others may take issue with this citing other approaches to counseling that have worked for them. It may be that any effective school of counseling has these four ingredients, but under different names or explained in a different way. The counselor, whether called psychologist, social worker, psychiatrist or pastoral counselor, who develops and integrates these ingredients into their interpersonal approach will have an excellent chance of aiding a client. In cooperation with a counselor who applies these four ingredients, a client will be able to identify the source of his problems and develop a plan to resolve them without having to contend with a counselor inflicting his own values upon him.

Clinicians and administrators may also wish to utilize the measures of spiritual awareness found in this research as practical treatment tools and instruments to satisfy the new JCAH requirements for assessment of spiritual orientation. Both the Ellison Spiritual Well-Being Scale and Hood's Mysticism Scale are available for use at no cost. The measures of "Fruits of the Spirit", "Freedom" and "Openness to the Possibility of Spiritual Experience" developed for this research may be copied freely. All of these scales are copyrighted but the authors seek only acknowledgement of the copyright in return for free use of the scales. At the least, use of these scales provides the clinician and client the opportunity and, if they need one, the excuse, to discuss the issue of spirituality.

Optimally these scales could be used to gauge the level of acceptance a client might have to spiritual approaches. For example, a client scoring low on a subscale of conventional religiosity but high on a more "mystical" subscale might initially respond much better to a cognitive therapy or even Jungian analysis than to the relatively orthodox spiritual approach of AA. Conversely, a client with high conventional religiosity scores could build a treatment plan around AA and other religious activities that would support this spiritual world view. The net result might be reflected in lower drop out and recidivism rates and higher client/worker satisfaction scores.

The notion of matching what the client believes will work with the therapy provided is not new. Indeed, it has been detailed at length by Erich Fromm (1941, 1947, 1955, 1964, 1968). Fromm described the matching process as "analyzing the system of man." Perhaps, a measure of spiritual awareness could become one of a number of special tools designed to help analyze the world view of clients. Such a tool could sidestep resistance by matching clients with the type of service they are most ready to understand, accept and in which they would have the most faith.

In short this research may truly aid the clinical community and their clients. Struggling in a society that emphasizes accumulation of wealth and consumption of material goods, both client and clinician are likely to loose sight of the enormous resources of faith, brotherly love and human kindness that are linked to spirituality. Families may really need to know that their faith in a "higher power" is worthy of serious respect and understanding by a "socially approved, certified, professional" caregiver. Clinicians need to know that failure to detect and , if present, build upon the spiritual awareness of their clients is at best unprofessional, at worst a tragic missed opportunity.

APPENDICES

APPENDIX A

Cover Letter and Survey Instrument

Gate way Letter head 5 April 1989

Dear First Name,

Very little is known about experiences of a spiritual nature as they relate to recovery from alcoholism. As you know Gateway has been a leader in the field of alcoholism treatment in great part because of our reliance upon good staff and sound research. As a Gateway Alumnus you have been randomly selected to participate in a research project exploring this relationship between spirituality and alcoholism. This important topic is now being explored by Gateway with the help of Mr. Al Brewster and Dr. Gary Koeske of the University of Pittsburgh's School of Social Work. We hope you will agree to help us.

We do not need your name and promise you that your individual responses will be kept totally confidential. We will have no way of identifying you.

There are no right or wrong answers, you are only asked to be honest and to complete every item. We would appreciate your willingness to contribute 15-20 minutes of your time to completing this survey.

If you have any questions about this study, please feel free to call Al Brewster (412) 824-1894 or Dr. Gary Koeske (412) 624-6321. Also, if you would like to receive a report of our findings, just send us a brief request at the above address.

We look forward to receiving your completed questionnaire, and thank you in advance for your help.

Sincerely

Ken Ramsey Ph.D,
President & Chief Executive Officer

Abraham Twerski M.D.
Founder and Medical Director

Gateway Rehabilitation Center

Gateway
Rehabilitation Center

Kenneth S. Ramsey, Ph.D.
President and Chief Executive Officer

Abraham J. Twerski, M.D.
Founder and Medical Director

April 7, 1989

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Sincerely,

Kenneth S. Ramsey, Ph.D.
President and Chief Executive Officer

Abraham J. Twerski, M.D.
Founder and Medical Director

Moffett Run Road
Aliquippa, PA 15001
(412) 766-8700

To begin we would like to ask several questions about your experience with Alcoholics Anonymous.

Instructions: Please circle the number of your answer:

1. In general how do you feel about the program of Alcoholics Anonymous?

1 **Strongly Oppose**

2 **Mildly Oppose**

3 **Mildly Favor**

4 **Strongly Favor**

2. When did you first attend AA?

Month _____

Year _____

3. Were you attending AA meetings once a month or more, before entering Gateway? (Circle number)

1 **No**

2 **Yes**

4. Over the last six months, how often did you attend AA meetings in the average month?

_____ **Times a month**

5. Do you plan to go to AA meetings in the future? (Circle number)

1 **No**

2 **Yes**

6. In your experience in AA groups how much emphasis is placed on spirituality? (Circle number)

1 **None**

2 **Very Little**

3 **A Fair Amount**

4 **A Lot**

5 **A Great Deal**

7. How has your involvement in AA activities been affected by AA's spiritual emphasis? (Circle number)

1 Greatly Discouraged my involvement

2 Somewhat Discouraged my involvement

3 Has not affected my involvement either way

4 Somewhat Encouraged my involvement

5 Greatly Encouraged my involvement

The following questions refer to some of the major parts of AA. We are interested in how involved you believe you have been in each of these parts.

1= Not involved at all

2=A little involved

3=Involved

4=Involved a lot

5=Deeply involved

8. How involved have you been in working the steps?	1	2	3	4	5
9. How involved have you been in using a sponsor?	1	2	3	4	5
10. How involved have you been in reaching out to other AA members when you are tense and need help?	1	2	3	4	5
11. How involved have you been in attending meetings?	1	2	3	4	5
12. How involved have you been in actively participating in meetings?	1	2	3	4	5
13. How involved have you been in studying the AA literature?	1	2	3	4	5
14. How involved have you been in performing or assisting in the 12th Step?	1	2	3	4	5

15. During the past year have you consumed <u>any</u> alcoholic beverages?

1 No- skip to question # 49

2 Yes

16. Thinking in terms of a 12 ounce can of beer, a 5 ounce glass of wine or a mixed drink with 1 shot of liquor in it as " a drink", about how many "drinks" have you consumed on **average per day over the past year?** (Circle number)

1 **less than 1/2 a drink per day**

2 **between 1/2 and 2 drinks per day**

3 **more than 2 drinks per day**

*The following statements are either true or false as they describe you during the past year.*Please circle either **T for true or F for False.**

17. During the past year my hands shook a lot in the morning after drinking. ---------- T F

18. During the past year I have often taken a drink the first thing when I get up in the morning. -------- T F

19. During the past year I have taken a strong drink in the morning to get over the effects of last night's drinking. --- T F

20. During the past year I deliberately tried to cut down or quit drinking, but was unable to do so. --------- T F

21. During the past year once I started drinking it was difficult for me to stop before I became completely intoxicated. ---------- T F

22. During the past year I sometimes kept drinking after I had promised myself not to. ---------- T F

23. During the past year I have had a quick drink when no one was looking. ---------- T F

24. During the past year I have taken a few quick drinks, before going to a party, to make sure I had enough. ---------- T F

25. During the past year I have skipped a number of regular meals while drinking. ---------- T F

26. During the past year I have tossed down several drinks pretty fast, to get a quicker effect from them. -- T F

27. During the past year I have awakened the next day not being able to remember some of the things I had done while drinking. ---------- T F

28. During the past year I have lost a job, or nearly lost one, because of my drinking. ---------- T F

29. During the past year my drinking contributed to getting hurt in an accident (in a car or elsewhere). ------- T F

30. During the past year drinking led me to quit my job. - - - - - T F

31. During the past year I had an illness connected with drinking which kept me from my regular job for a week or so. - - - - - - - - - - - - - - - - - - T F

32. During the past year my drinking contributed to getting involved in an accident in which someone else was hurt or property was damaged. - - - - T F

33. During the past year I have been arrested for being drunk. - T F

34. During the past year my drinking was involved in losing a friend or drifting apart from a friend. - - - - - - - - - - - T F

35. During the past year drinking may have hurt my chances for promotion, or raises, or better jobs. - - - - - - - - T F

36. During the past year my drinking interfered in some way with the way I raised my children. - - - - - - - - - - - T F

37. During the past year people at work indicated that I should cut down on my drinking. - - - - - - - - - - - T F

38. During the past year a physician suggested I cut down on my drinking. - - - - - - - - - - - - - - - - - - - T F

39. During the past year I felt that my drinking was becoming a serious threat to my physical health. - - - - - - - - T F

40. During the past year friends have indicated I should cut down on my drinking. - - - - - - - - - - - - - - T F

41. During the past year a policeman questioned me or warned me because of my drinking. - - - - - - - - T F

42. During the past year I spent money on drinks that was needed for essentials like food, clothing, payments. ------- T F

43. During the past year I have stayed away from work or gone to work late because of a hangover. - - - - - - - T F

44. During the past year I have gotten high or tight while on the job. - - - - - - - - - - - - - - - - - - - T F

45. During the past year my drinking sometimes made me bad tempered or hard to get along with. - - - - - - - - T F

46. During the past year drinking caused me to get in a heated argument. - - - - - - - - - - - - - - - - - - T F

47. During the past year I spent too much money on drinks, or after drinking. - - - - - - - - - - - - - T F

48. During the past year I have driven a car sometimes after drinking when I would have been in trouble with the law if they happened to stop me. - - - - - - - - - T F

The next couple of questions have to do with your childhood. Just think back to those days for a few moments. Now, Thinking back ---

49. When you were a child did you see your father as loving you-(circle number)

1	not at all	4	a lot
2	a little	5	a great deal
3	somewhat		

50. When you were a child did you see your mother as loving you- (circle number)

1	not at all	4	a lot
2	a little	5	a great deal
3	somewhat		

51. When I was a Child my father drank alcoholic beverages - (circle number)

1	Never	4	Heavily
2	Lightly	5	Like an Alcoholic
3	Moderately		

52. When I was a Child my mother drank alcoholic beverages -(circle number)

1	Never	4	Heavily
2	Lightly	5	Like an Alcoholic
3	Moderately		

53. Now, thinking back, when you were a child did you see some adult, other than your mother or father, as loving you? (circle number)

1 No- Skip to Question # 55

2 Yes- If YES Who? (for example aunt, uncle, grandmother/father, neighbor, teacher)_____

54. Now, thinking back, when you were a child did you see this other adult as loving you- (circle number)

1	not at all	4	a lot
2	a little	5	a great deal
3	somewhat		

The following section of this questionnaire deals with a variety of religious and or spiritual matters. Some of the ideas may be quite familiar to you and others may not. In either case just read the each item carefully and answer each to the best of your ability.

For each of the following statements **circle the choice** that best indicates the extent of your **agreement or disagreement** as it describes your personal experience:

SA=Strongly Agree MA=Moderately Agree A=Agree D=Disagree
MD=Moderately Disagree SD=Strongly Disagree

55. I don't find much satisfaction in private prayer with God. ---------- SA MA A D MD SD

56. I don't know who I am, where I came from, or where I'm going. ---------- SA MA A D MD SD

57. I believe that God loves me and cares about me.- - - - SA MA A D MD SD

58. I feel that life is a positive experience. - - - - - - - - - SA MA A D MD SD

59. I believe that God is impersonal and not interested in my daily situations.- - - - - - - - - - - SA MA A D MD SD

60. I feel unsettled about my future.---------- SA MA A D MD SD

61. I have a personally meaningful relationship with God. SA MA A D MD SD

62. I feel very fulfilled and satisfied with life. - - - - - - SA MA A D MD SD

63. I don't get much personal strength and support from my God. - - - - - - - - - - - - - - SA MA A D MD SD

64. I feel a sense of well-being about the direction my life is headed in.- - - - - - - - - - - - SA MA A D MD SD

65. I believe that God is concerned about my problems.- SA MA A D MD SD

66. I don't enjoy much about life.- - - - - - - - - - - - - - - - SA MA A D MD SD

67. I don't have a personally satisfying relationship with God. ----------SA MA A D MD SD

68. I feel good about my future. - - - - - - - - - - - - - - - - - SA MA A D MD SD

69. My relationship with God helps me not to feel lonely. SA MA A D MD SD

70. I feel that life is full of conflict and unhappiness. -- SA MA A D MD SD

71. I feel most fulfilled when I'm in close communion with God. ----------SA MA A D MD SD

72. Life doesn't have much meaning.- - - - - - - - - - - - - - SA MA A D MD SD

73. My relationship with God contributes to my sense of well-being. - - - - - - - - - - - - SA MA A D MD SD

74. I believe there is some real purpose for my life. - - SA MA A D MD SD

Next are brief descriptions of a number of beliefs. Some descriptions refer to beliefs you may hold others refer to beliefs you may not hold. In each case read the description carefully and then **circle the choice that best indicates the extent of your agreement or disagreement** as it describes your beliefs.

SA=Strongly Agree MA=Moderately Agree A=Agree D=Disagree
MD=Moderately Disagree SD=Strongly Disagree

75. It is possible to have an experience which leaves you with a deep sense of joy. - - - - - - - - - SA MA A D MD SD

76. It is possible to feel absorbed as one with all things. SA MA A D MD SD

77. It is possible that all things may be alive. - - - - - - - SA MA A D MD SD

78. It is possible to have an experience which seems holy. SA MA A D MD SD

79. It is possible to have an experience in which a new view of reality is revealed. - - - - - - - - - SA MA A D MD SD

80. There may be another reality in which time, place, and distance are meaningless.------ SA MA A D MD SD

81. There may be a unity to all things.- - - - - - - - - - - - SA MA A D MD SD

82. It is possible to have an experience that cannot be expressed in words. - - - - - - - SA MA A D MD SD

83. I have freedom to make choices in my life.- - - - - - - SA MA A D MD SD

84.I have a code or set of beliefs that gives me the freedom to become all I can be.--------- SA MA A D MD SD

85. I believe it takes discipline to achieve freedom.- - - - SA MA A D MD SD

86. Freedom to choose my direction in life is a value of extreme importance to me.- - - - - - - SA MA A D MD SD

87. I feel a deep love for others. - - - - - - - - - - - - - - - - - SA MA A D MD SD

88. There is great joy in my heart. - - - - - - - - - - - - - - SA MA A D MD SD

89. I feel serene or peaceful most of the time.-------- SA MA A D MD SD

90. Others often see me as patient and tolerant.------- SA MA A D MD SD

91. I'm often seen as a kind or sympathetic person. - - - SA MA A D MD SD

92. People who know me well might describe me as generous. SA MA A D MD SD

93. An important aspect of my character is loyalty.- - - SA MA A D MD SD

94. Others see me as gentle most of the time. - - - - - - - SA MA A D MD SD

95. Others see me as having self-control most of the time. SA MA A D MD SD

96. I am responsible for my behavior.- - - - - - - - - - - - SA MA A D MD SD

The following questions contain brief descriptions of a number of experiences. Some descriptions refer to phenomena that you may have experienced while others refer to phenomena that you may not have experienced. **In each case note the description carefully and then circle the number provided according to how much the description applies to your own experience. Circle +2,+1, ?, - 1, or - 2 depending upon how you feel in each case.**

+ 2: This description is definitely true of my own experience or experiences
+1 : This description is probably true of my own experience or experiences
? : I cannot decide
- 1 : This description is probably Not true of my own experience or experiences
- 2 : This description is definitely Not true of my own experience or experiences

Please circle a response for each item trying to avoid if at all possible responding with a ?. In responding to each item, please understand that the items may be considered as applying to one experience or as applying to several different experiences. After completing this section, please be sure that all items have been responded to - leave no items unanswered.

97. I have had an experience in which everything seemed to disappear from my mind until I was conscious only of a void.----------+2 + 1 ? - 1 - 2

98. I have experienced a deep sense of joy.- - - - - - - - - -+2 + 1 ? - 1 - 2

99. I have had an experience in which I felt myself to be absorbed as one with all things. - - - - - - - -+2 + 1 ? - 1 - 2

100. I have had an experience in which I felt as if all things were alive.- - - - - - - - - -+2 + 1 ? - 1 - 2

101. I have had an experience which seemed holy to me. +2 + 1 ? - 1 - 2

102. I have had an experience in which all things seemed to be aware. - - - - - - - - - - -+2 + 1 ? - 1 - 2

103. I have had an experience in which I had no sense of time or space. - - - - - - - - - - -+2 + 1 ? - 1 - 2

104. I have had an experience in which I realized the oneness of myself with all things. - - - - - - -+2 + 1 ? - 1 - 2

105. I have had an experience in which a new view of reality was revealed to me. ----------+2	+ 1	?	- 1	- 2
106. I have had an experience in which ultimate reality was revealed to me. ---------+2	+ 1	?	- 1	- 2
107. I have had an experience which I knew to be sacred.+2	+ 1	?	- 1	- 2
108. I have had an experience that is impossible to communicate. ----------+2	+ 1	?	- 1	- 2
109. I have had an experience which left me with a feeling of wonder.----------+2	+ 1	?	- 1	- 2
110. I have had an experience in which time, place, and distance were meaningless. ---------+2	+ 1	?	- 1	- 2
111. I have had an experience in which I became aware of a unity to all things. -------+2	+ 1	?	- 1	- 2
112. I have had an experience that cannot be expressed in words. ----------+2	+ 1	?	- 1	- 2

The questions in the previous section refer to what may be called spiritual experiences. **If, after answering the above questions, you realize that you have <u>not actually had</u> these kinds of spiritual experiences please check this space _____ and skip to Question #122.**

113. About how many spiritual experiences have you had (NUMBER)_____

114. About how old were you when you first had a spiritualexperience?_____

115. About how many of your spiritual experiences occurred while under the influence of alcohol or other drugs? _____

116. About how many of your spiritual experiences occurred <u>after</u> treatment at Gateway? _____

117. Did any experiences of a spiritual nature help you **Reduce** your use of alcohol and/or other drugs. (circle number)

1 **No** 2 **Yes- If Yes, about how many**_____

118. I have had experiences of a spiritual nature which have led to other positive changes in my life. (Circle number)

1 **True** 2 **False**

119. Have you **ever** used alcohol or other drugs in an effort to **ATTAIN** spiritual experience?

1 **No** 2 **Yes**

120. Have you used alcohol or other drugs **during the past year** in an effort to **ATTAIN** spiritual experience? (Circle number)

1 **No** 2 **Yes If Yes how many times** _____

121. The following request is optional, your response is not necessary to complete this research. However, if you would briefly describe the spiritual experience you believe to be the most significant in your life it would be greatly appreciated. You may use the back of this questionnaire if you need more space:

_____

_____

_____

Finally, just a few questions about yourself for statistical purposes:

122. What is your sex? (Circle number)

1. **Female**
2. **Male**

123. What is your age?_____**YEARS**

124. What is your race? (circle number)

1. **Black**
2. **White**
3. **Other** (specify)_____

125. What is your present marital status? (circle number)

1. **never married**
2. **married**
3. **divorced**
4. **separated**
5. **widowed**
6. **Living with someone in a marriage-like relationship**

126. Which is the highest level of education that you have completed?

1. **No Formal Education**
2. **Some Grade School**
3. **Completed Grade School**
4. **Some High School**
5. **Completed High School**
6. **Some College**
7. **Completed College** (specify major)_____
8. **Some Graduate Work**
9. **A Graduate Degree** (specify degree and Major)_____

127. What have been your drugs of choice? (Look over the list below. Then circle the number indicating what have been your first, second and third drugs of choice.)

	1=first choice	2=second choice	3=third choice
1. Alcohol (Beer, Wine, Whiskey)	1	2	3
2. Amphetamines/ Speed	1	2	3
3. Barbiturates/ Downers (Seconal, Nembutal)	1	2	3
4. Caffeine (Coffee or Tea)	1	2	3
5. Cocaine or Crack	1	2	3
6. Canabinols (Marijuana,Hash)	1	2	3
7. Nicotine (Cigarettes, Snuff, Chewing Tobacco)	1	2	3
8. Opiates (Heroin, Morphine, Dilaudid)	1	2	3
9. Psychedelics (LSD, Mescaline,Peyote, Psylocybin)	1	2	3
10. Sedative Hypnotics (Qualudes)	1	2	3
11. Tranquillizers (Valium, Librium, Tranxene)	1	2	3
12. Other-**Specify**_____	1	2	3

128. What was your approximate family income from all sources, before taxes, last year? (Circle number)

1	Less Than $3,000	9	25,000 to 29,999
2	3,000 to 4,999	10	30,000 to 34,999
3	5,000 to 6,999	11	35,000 to 39,999
4	7,000 to 9,999	12	40,000 to 50,000
5	10,000 to 12,999	13	50,000 to 75,000
6	13,000 to 15,999	14	75,000 to 100,000
7	16,000 to 19,999	15	100,000 to 150,000
8	20,000 to 24,999	16	Greater than $150,000

129. What is your religious preference? (circle number)

1. Protestant (Specify Denomination)_____
2. Jewish
3. Catholic
4. Other?. . . (Specify)_____
5. None

130. How frequently did you attend religious services in a place of worship during the past year? (Circle number)

1. Not at all
2. Only on special days (Easter, Yom Kippur etc.)
3. Once every month or two
4. Once every two or three weeks
5. Once or more every week

131. How old were you when you first became involved in organized religion?

_____YEARS

132. How important is organized religion in your life?

1. Not important at all
2. A little important
3. Somewhat important
4. Very important
5. Deeply important

133. How much did your involvement in religion before AA encourage you to participate in AA?

1 Greatly Discouraged my involvement
2 Somewhat Discouraged my involvement
3 Has not affected my involvement either way
4 Somewhat Encouraged my involvement
5 Greatly Encouraged my involvement
6. Not applicable

134. How much did your AA experience encourage you to participate in organized religion?

1 Greatly Discouraged my involvement
2 Somewhat Discouraged my involvement
3 Has not affected my involvement either way
4 Somewhat Encouraged my involvement
5 Greatly Encouraged my involvement

135. When did you complete Gateway inpatient treatment? MONTH _____ YEAR_____

136. What is your longest period of abstinence, without slips, since leaving Gateway?

_____ DAYS

137. Estimate the total number of days you have abstained from alcohol since leaving Gateway. _____ DAYS

138. Estimate the total number of days you have been drinking without experiencing alcohol related problems since leaving Gateway._____ DAYS

139. How spiritual do you percieve yourself to be?

1 **Not at all**

2 **A Little**

3 **Somewhat**

4 **Very**

5 **Deeply**

Is there anything else you would like to tell us about spirituality and alcohol? If so please use this space for that purpose.

Also, any comments you wish to make that you think will help us at Gateway in future efforts to help Alcoholics, other drug abusers and their families will be appreciated either here or in a separate letter.

Thank you very much for your time and consideration in aiding us in this important research project. Rest assured that the results from this study will be used to improve the treatment that others receive while here at Gateway. If you would like a summary of results, please print your name on the back of the return envelope (NOT on this questionnaire). We will see that you get it.

APPENDIX B
The 12 Steps and 12 Traditions of Alcoholics Anonymous

THE TWELVE STEPS

1. We admitted we were powerless over alcohol--that our lives had become unmanageable.

2. Came to believe that a Power greater than ourselves could restore us to sanity.

3. Made a decision to turn our will and our lives over to the care of God *as we understood Him.*

4. Made a searching and fearless moral inventory of ourselves.

5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.

6. Were entirely ready to have God remove all these defects of character.

7. Humbly asked Him to remove our shortcomings.

8. Made a list of all persons we had harmed, and became willing to make amends to them all.

9. Made direct amends to such people wherever possible, except when to do so would injure them or others.

10. Continued to take personal inventory and when we were wrong promptly admitted it.

11. Sought through prayer and mediation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out.

12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

THE TWELVE TRADITIONS

1. Our common welfare should come first; personal recovery depends upon AA unity.

2. For our group purpose there is but one ultimate authority--a loving God as He may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern.

3. The only requirement for AA membership is a desire to stop drinking.

4. Each group should be autonomous except in matters affecting other groups or AA as a whole.

5. Each group had but one primary purpose--to carry its message to the alcoholic who still suffers.

6. An AA group ought never endorse, finance, or lend the AA name to any related facility or outside enterprise, lest problems of money, property, and prestige divert us from our primary purpose.

7. Every AA group ought to be fully self-supporting, declining outside contributions.

8. Alcoholics Anonymous should remain forever nonprofessional, but our service centers may employ special workers.

9. AA, as such, ought never be organized; but we may create service boards or committees directly responsible to those they serve.

10. Alcoholics Anonymous has no opinion on outside issues; hence the AA name ought never be drawn into public controversy.

11. Our public relations policy is based on attraction rather than promotion; we need always maintain personal anonymity at the level of press, radio, and films.

12. Anonymity is the spiritual foundation of all our Tradition, ever reminding us to place principles before personalities.

APPENDIX C

The Origins of AA

Origins of AA

It was America in the early 1930's, everywhere he looked Rowland saw the effects of the great depression. Men were begging for work of any kind to help them feed their hungry children. Women, pregnant but too poor to maintain a proper diet, bore sickly children too early. If they were less fortunate their child was still born or, maybe worse, profoundly retarded. In the midst of this poverty Rowland, a young industrialist who had escaped the crash, was flush with money- lots of it. But, despite his financial fortune, Rowland was miserable.

Rowland suffered from an overwhelming compulsion; he was addicted to drink. Beginning in his teens he had noticed that alcohol seemed to help make the parties he attended, with his uppercrust New England friends, a bit gayer. After a few drinks, girls (Rowland liked girls) were so much easier to talk to and even flirt with. But now, in his mid-twenties, Rowland began to realize that his life was plodding from one drunken stupor to the next. He was losing track of time; sometimes three or four days went by that he had no recollection of. He was losing friends after embarrassing their sensibilities with his drunken behaviour and, of course, he was losing money. Determined to put an end to this compulsion, and straightforward (and rich) chap that he was, Rowland sailed for Europe in search of the only man in the world he believed could help him- Dr. Carl Gustav Jung.

Jung, you may recall, was a former pupil of the grandfather of psychiatry Dr. Sigmund Freud. The two parted company over fundamental differences in their view of the human psyche. Freud persisted in developing a dynamic universal theory of psychology medically rooted in human tissue and instinctually expressed through sexual energy. In contrast to Freud's naturalistic bent, Jung, in the spirit of nineteenth-century philosophy, sought to group people into personality "types" or "complexes". Rather than the Freudian concept of life forces anchored in human biology, Jung believed that much of man's experience was shaped by the tension between the demands of society and an inner aspiration for connection with a higher spiritual power. Over nearly half a century this concept of a spiritual component in human psychology grew in Jung's thinking and writing. Jung's book, Modern Man in Search of a

Soul , first published in 1931, was probably just beginning to achieve acclaim when the wealthy, but spiritually bankrupt, Rowland journeyed to Zurich Switzerland in hopes of finding some relief from his uncontrollable desire for alcohol.

After nearly a year of treatment young Rowland (Rowland W. as he is fondly referred to by succeeding generations of Alcoholics Anonymous adherents) returned to the U.S. where he soon relapsed. Desperate, he returned to Jung who, it is widely recognized, provided him with the cornerstone upon which AA is built: Jung told Rowland that he was hopeless '. . . so far as any further medical or psychiatric treatment might be concerned.' After Rowland frantically asked if there might not be any other hope for a cure Jung spoke to him of the possibility of ' . . . a spiritual or religious experience- in short, a genuine conversion'. Jung went on to caution Rowland '. . . that while such experiences had sometimes brought recovery to alcoholics, they were. . . comparatively rare'. Nevertheless Rowland pursued Jungs advice and soon found himself joining the Oxford Group, a non-denominational evangelical movement which sought to recapture what its members understood might be the spirit of primitive Christianity. The group focused upon a series of spiritual steps, self-survey, confession, restitution, and the giving of oneself in the service of others. These spiritual steps, after being added to Rowland's Jungian diagnosis of hopelessness and prescription to turn over his treatment to a spiritual rather than psychiatric power formed the basis for AA's, now famous, 12 Steps (see Appendix B). Through his affiliation with the Oxford Group Rowland found a respite from his compulsion to drink and decided to dedicate his life to helping other alcoholics.

Hearing that his old friend Ebby T. was about to be involuntarily committed to an institution because of his drinking, Rowland, drawing upon his network of influential acquaintances, teamed up with the judge's son, Cebra G.. Together they intervened by agreeing to take custody of Ebby and see that he got treatment. Ebby, it turned out, was receptive to the efforts of Rowland, Cebra and the Oxford Group's non-sectarian approach finding 'friendship and fellowship of a kind he had never known' (Kurtz, 1979, pp. 9-10). Ebby, in turn, sought out the most hopeless alcoholic he knew Bill W.

The significance of Bill W. to the history of AA cannot be underestimated- he was the author of no fewer than five books on AA including Twelve Steps and Twelve Traditions and Alcoholics Anonymous . commonly known as "The Big Book". These books have been translated into many languages and AA has spread at a

phenomenal rate over the last 50 years with a current international membership of more than 1.5 million (Pace 1988).

Dave Else, an Episcopalian Priest with over 20 years experience in the field of alcoholism rehabilitation, believes "12 Step programs are the fastest growing spiritual movement in the United States" (personal communication 21 Sept. 1988). The rapid growth of AA and similar 12 Step style groups across the globe may have as much to do with their unique organization as it does with demand for their services. In order to pursue this description of AA's remarkable structure let's look at it from the perspective of organizational theory.

Alcoholics Anonymous: The Organization

A case of subtle Hierarchy

Organizational Theory is, in great part, an explication of the effects of hierarchy and authority upon ordinary man. Research, like this dissertation, measuring the relationship between AA involvement and Spiritual Awareness, may be of great interest to organizational theorists because AA style groups differ so markedly from the usual public or private sector organizations. One major difference appears to be the 12 Step program's unique freedom from an organized hierarchy. I say "appears to be" because as Harmon & Mayer (1986 p.379) point out "a world without hierarchy is a world without authority" and, as we shall see later, AA has plenty of authority.

In most AA groups there is a member designated to be a secretary, responsible for arranging the meeting time and place, or someone else responsible for seeing that the coffee is made but these roles are strictly voluntary and are passed on to someone else after no more than a few months. In addition the secretary or coffee maker have no formal leader or reporting official; they simply either do the job or someone else volunteers to see that it gets done. Likewise neither of these positions carries any authority over other members beyond consensual agreements to cooperate in order to complete some (usually immediate) task.

So, at first blush, this sort of nonhierarchy might be confused with Thayers (1981) "structured nonhierarchy". Yet, upon further examination, AA groups do not appear so much Thayerian models of consensus as they are examples of peer pressure used in an authoritarian way to mold people into sobriety. Perhaps this

description is true; given the facts that AA meetings are frequently composed of far more people than the upper limit of five allowed in a consensus model, and that AA groups are often highly emotionally charged. However, before writing off AA as a form of peer pressured brain-washing or a cult, consider the facts that no dues or fees are required, no plate is passed for a collection, and AA sets no limits on how sober you are when you come to a meeting as long as you don't actually disrupt it. All members are encouraged to remain anonymous and the only requirement for membership is a desire to stop drinking. Another characteristic of AA is autonomy.

All AA groups are autonomous and beyond the control of the AA headquarters in New York. The only important function of the headquarters is to promulgate AA literature. AA literature, it is important to note, allows for no other path to sobriety than total abstinence via the 12 Steps. Some researchers (Baum, 1977; Brewster, 1986) continue to find significant proportions of recovering alcoholics doing well without the benefit of AA attendance, but this does not dissuade AA because their philosophy is clear: "Anything that works toward the recovery of the Alcoholic is good . . . Saying we know the only way to recovery of the alcoholic is an egotistical luxury we can no more afford than resentments" (Alcoholics Anonymous, 1972). This sounds fine but the reality is closer to a rigid adherance to the 12 Steps and 12 Traditions and no pamphlet for "professionals" written by the "central office" is likely to change the day to day functions of the local AA meeting.

While this closed stance serves to maintain AA's single minded focus on the 12 Steps the autonomy may be a mixed blessing. As Thayer (1981, p.173) makes clear, without an interlocking network of groups sharing a collective consensus on problem solving, useful strategies will be limited. For AA, as an organization, this means that without cooperative exploration of the problem of addiction, their prime goal of sobriety for all who want it may not be achieved. In short, the lack of a formal hierarchy in AA is one of its most valued characteristics. But, if hierarchy isn't present how does AA exert such a strong influence on its members? The answer must more clearly lie in the other element of any organization - authority.

To begin an AA meeting is to experience prayer. AA's "Serenity Prayer", attributed to the distinguished theologian Reinhold Niebur, follows:

> "God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom

to know the difference".

This prayer is fine for those who ascribe to a certain religious belief but mention of "GOD" for many alcoholics is too threatening or, in the case of the agnostic or atheist, simply inappropriate. Often plagued by guilt or using a variety of defense mechanisms to prevent addressing his irresponsible behaviour, the alcoholic is unlikely to place himself in the position of being judged in a religious light.

However, AA is genuinely concerned with including as many people as possible into their groups. So, in order to avoid turning off a newcomer, a more experienced AA member may be heard explaining : "No problem - pray to God as you understand him - think in terms of a higher power even if that higher power has to take the form of a coffee cup or doorknob or, perhaps, the AA group itself. The first step is to accept the things you cannot change - you are powerless over alcohol- because you're sick, you have a disease".

Now let's not get too far ahead here; the AA organization is structured through it's philosophy to utilize "GOD" as it's main source of authority but, if you're not persuaded by GOD, modern science comes to the fore to hold out a fine rationalization for all that alcoholic behaviour - "you're suffering from a disease". Or, to paraphrase Dr. Jung's talk with Rowland, "you're hopelessly addicted to alcohol and there is nothing that modern medicine can do to cure you". Either one of these two powerful sources of knowledge would be enough to get the attention of most, but together they coalesce to form the authoritative roots of AA.

The simultaneous application of forgiveness by both God and science is at the heart of the AA experience; the two are so palatable. The forgiving God can be individually defined, no need to struggle with the specific and judgmental, even damning, teachings of the Bible or Koran. And, if a forgiving God is not your cup of tea, the disease concept of alcoholism offers an immediate scientific excuse for your behaviour. The entree to AA is so seductive to say nothing of the influence of scores of peers at "speaking meetings, telling their stories" about how the 12 Steps of AA have worked for them. It is no wonder that any thoughts an alcoholic may have about defining for himself what "things" can or cannot be changed tend to wilt before the authority of GOD and science after uttering the "Serenity Prayer".

The 12 Steps set the standard by which an alcoholic, his peers and his employers, may judge his progress. In an organizational sense the concept of using standards to judge performance was worked out in ancient times within the Bible and Koran. In a more modern academic vein, Woodrow Wilson tackled the topic of

measuring performance with standards over a hundred years ago. Harmon & Mayer (1986, p.36) make the connection quite clear; standards, as they point out, reflect values. The greatest value to AA is sobriety and the 12 Steps are, in organizational terms, the most "efficient vector" to achieve that value. Other landmarks on the road to sobriety include the ideal beginning in AA: "90 meeting in 90 days". Whether or not the alcoholic is meeting these standards is quite apparent to his AA peers and, through admittedly coercive employee assistance programs (EAP), employers may get periodic reports on his "progress in the program". To further illustrate my point about the coercive nature of these "voluntary" AA standards one need only note the fact that the American Civil Liberties Union is now challenging the State of Maryland's practice of court ordering convicted drunk drivers (even avowed atheists) to attend AA meetings.

Like membership in other associations, membership in AA has its rewards and punishments. The rewards include an opportunity for sobriety, self respect and maybe even a longer life through abstaining from alcohol. These are the most obvious; the more subtle rewards come from fellow members who listen to your story often as students to a teacher and, if your perceived as someone who has some "solid sobriety", you may be asked to be a newcomers sponsor or even to receive his "confession" during the 5th of the 12 Steps.

The punishments are, like the rewards, both obvious and subtle. Death, jail or insanity are, according to AA, the likely outcomes for any alcoholic who doesn't abstain from drinking. The more delicate punishments for straying from the AA path might include negative nonverbal cues from others in your group who see you not progressing as you "should". A personal sense of embarrassment or a sort of fall from grace may be experienced after a "slip". And, if sobriety is a condition of your employment or your court supervised probation, the slip may cost you your job or even your freedom.

Another element not often discussed, that may be perceived as either a reward or punishment, is the unwritten rule that employers in the field of alcoholism treatment follow: A "recovering alcoholic" seeking employment in the field should have at least two years of continuous "quality sobriety" before being hired. "Quality sobriety" is a matter of the individual employers judgement. The ramifications of this unwritten employment policy are beyond the scope of this paper; suffice it to say that an alcoholics world of work, with all the attendant connections to colleagues, competitors, family, friends, self image and financial security, hinges on other's perceptions of his

sobriety. The accuracy of their perceptions is, of course, subject to distortion by many factors not the least of which is the ability of the alcoholic, and others dependent upon his position in the work world, to shape those perceptions. What is even more interesting is how AA, despite its original nonhierarchical design, is coming to be subtly subsumed under the understandably repressive hierarchy of the employer and the courts.

APPENDIX D

Bill W. To C.G. Jung Letters

The Following has be excerpted from the January 1968 Grapevine:

Here is a vital chapter of AA's early history, first published in the Grapevine in January 1963, and reprinted in January 1968.

This extraordinary exchange of letters revealed for the first time not only the direct historical ancestry of AA, but the bizarre situation wherein Jung, deeply involved with scientists and with a scientific reputation at stake, felt he had to be cautious about revealing his profound and lasting belief that the ultimate sources of recovery are spiritual sources. Permission to publish Dr. Jung's letter was granted to the Grapevine by the Jung estate.

January 23, 1961

My Dear Dr. Jung;

This letter of great appreciation had been very long overdue.

May I first introduce myself as Bill W., co-founder of the society of Alcoholics Anonymous. Though you have surely heard of us, I doubt if you are aware that a certain conversation you once had with one of your patients, a Mr. Roland H., back in the early 1930's, did play a critical role in the founding of our Fellowship.

Though Roland H. has long since passed away, the recollection of his remarkable experience while under treatment by you has definitely become part of AA history. Our remembrance of Roland H.'s statements about his experience with you is as follows:

Having exhausted other means of recovery from his alcoholism, it was about 1931 that he became your patient. I believe he remained under your care for perhaps a year. His admiration for you was boundless, and he left you with a feeling of much confidence.

To his great consternation, he soon relapsed into intoxication. Certain that you were his "court of last resort," he again returned to your care. Then followed the conversation between you that was to become the first link in the chain of events that led to the founding of Alcoholics Anonymous.

My recollection of his account of that converstation is this: first of all, you frankly told him of his hopelessness, so far as any further medical or psychiatric treatment might be concerned. This candid and humble statement of yours was beyond doubt the first foundation stone upon which our society has since been built.

Coming from you, one he so trusted and admired, the impact upon him was immense.

When he then asked you if there was any other hope, you told him that there might be, provided he could become the subject of a spiritual or religious experience--in short, a genuine conversion. You pointed out how such an experience, if brought about, might motivate him when nothing else could. But you did caution, though, that while such experiences had sometimes brought recovery to alcoholics, they were, nevertheless, comparatively rare. You recommended that he place himself in a religious atmosphere and hope for the best. This I believe was the substance of your advice.

Shortly thereafter, Mr. H. joined the Oxford Group, an evangelical movement then at the height of its success in Europe, and one with which you are doubtless familiar. You will remember their large emphasis upon the principles of self-survey, confession, restitution, and the giving of oneself in service to others. They strongly stressed meditation and prayer. In these surroundings, Roland H. did find a conversion experience that released him for the time being from his compulsion to drink.

Returning to New York, he became very active with the "O.G." here, then led by an Episcopal clergyman, Dr.. Samuel Shoemaker. Dr. Shoemaker had been one of the founders of that movement, and his was a powerful personality that carried immense sincerity and conviction.

At this time (1932-34), the Oxford group had already sobered a number of alcoholics, and Roland, feeling that he could especially identify with these sufferers, addressed himself to the help of still others. One of these chanced to be an old schoolmate of mine named Edwin T, ["Ebby"]. He had been threatened with commitment to an institution, but Mr. H. and another ex-alcoholic "O.G." member procured his parole, and helped to bring about his sobriety.

Meanwhile, I had run the course of alcoholism and was threatened with commitment myself. Fortunately, I had fallen under the care of a physician--a Dr. William D. Silkworth--who was wonderfully capable of understanding alcoholics. But just as you had given up on Roland, so had he given me up. It was his theory that alcoholism had two components--an obsession that compelled the sufferer to drink against his will and interest, and some sort of metabolism difficulty which he then called an allergy. The alcoholic's compulsion guaranteed that the alcoholic's drinking would go on, and the allergy made sure that the sufferer would finally deteriorate, go insane, or die. Though I had been one of the few he had thought it possible to help, he was finally obliged to tell me of my hopelessness; I, too, would have to be locked. To me, this was a shattering blow. Just as Roland had been made ready for his conversion experience by you,

so had my wonderful friend Dr. Silkworth prepared me.

Hearing of my plight, my friend Edwin T. came to see me at my home, where I was drinking. By then, it was November 1934. I had long marked my friend Edwin for a hopeless case. Yet here he was in a very evident state of "release", which could by no means be accounted for by his mere association for a very short time with the Oxford Group. Yet this obvious state of release, as distinguished from the usual depression, was tremendously convincing. Because he was a kindred sufferer, he could unquestionably communicate with me at great depth. I knew at once I must find an experience like his or die.

Again I returned to Dr. Silkworth's care, where I could be once more sobered and so gain a clearer view of my friend's experience of release, and of Roland H.'s approach to him.

Clear once more of alcohol, I found myself terribly depressed. This seemed to be caused by my inability to gain the slightest faith. Edwin T. again visited me and repeated the simple Oxford Group formulas. Soon after he left me, I became even more depressed. In utter despair, I cried out, "If there be a God, will He show Himself." There immediately came to me an illumination of enormous impact and dimension, something which I have since tried to describe in the book *Alcoholics Anonymous* and also in *AA Comes of Age*, basic texts which I am sending to you.

My release from the alcohol obsession was immediate. At once, I knew I was a free man.

Shortly following my experience, my friend Edwin came to the hospital, bringing me a copy of William James's *Varieties of Religious Experience*. This book gave me the realization that most conversion experiences, whatever their variety, do have a common denominator of ego collapse at depth. The individual faces an impossible dilemma. In my case, the dilemma had been created by my compulsive drinking, and the deep feeling of hopelessness had been vastly deepened by my doctor. It was deepened still more by my alcoholic friend when he acquainted me with your verdict of hopelessness respecting Roland H.

In the wake of my spiritual experience, there came a vision of a society of alcoholics, each identifying with and transmitting his experience to the next-chain-style. If each sufferer were to carry the news of the scientific hopelessness of alcoholism to each new prospect, he might be able to lay every newcomer wide open to a transforming spiritual experience. This concept proved to be the foundation of such success as Alcoholics Anonymous has since achieved. This had made conversion experiences --nearly every variety reported by James--available on almost wholesale basis. Our

sustained recoveries over the last quarter-century number about 300,000. In America and through the world, there are today 8,000 AA groups.

So to you, to Dr. Shoemaker of the Oxford Group, to William James, and to my own physician Dr. Silkworth, we of AA owe this tremendous benefaction. As you will now clearly see, this astonishing chain of events actually started long ago in your consulting room, and it was directly founded upon your own humility and deep perception.

Very many thoughtful AAs are students of your writings. Because of your conviction that man is something more that intellect, emotion, and two dollars' worth of chemicals, you have especially endeared yourself to us.

How our Society grew, developed its Traditions for unity, and structured its functioning, will be seen in the texts and pamphlet material that I am sending you.

You will also be interested to learn that, in addition to the "spiritual experience", many AAs report a great variety of psychic phenomena, the cumulative weight of which is very considerable. Other members have-following their recovery in AA--been much helped by your practitioners. A few have been intrigued by the I Ching and your remarkable introduction to that work.

Please be certain that your place in the affection, and in the history, of our Fellowship is like no other.

Gratefully yours,
William G. W-

January 30,1961

Dear Mr. W:

Your letter has been very welcome indeed.

I had no news from Roland H. any more and often wondered what has been his fate. Our conversation which he has adequately reported to you had an aspect of which he did not know. The reason that I could not tell him everything was that those days I had to be exceedingly careful of what I said. I had found out that I was misunderstood in every possible way. Thus I was very careful when I talked to Roland H. But what I really thought about was the result of many experiences with men of his kind.

His craving for alcohol was the equivalent, on a low level, of the spiritual thirst of our being for wholeness; expressed in medieval language: the union with God.

How could one formulate such an insight in a language that is not misunderstood in our days?

The only right and legitimate way to such an experience is that it happens to you in reality, and it can only happen to you when you walk on a path which leads you to higher understanding. You might be led to that goal by an act of grace or through a personal and honest contact with friends, or through a higher education of the mind beyond the confines of mere rationalism. I see from your letter that Roland H. has chosen the second way, which was, under the circumstances, obviously the best one.

I am strongly convinced that the evil principle prevailing in the world leads the unrecognized spiritual need into perdition if it is not counteracted either by real religious insight or by the protective wall of human community. An ordinary man, not protected by an action from above and isolated in society, cannot resist the power of evil, which is called very aptly the Devil. But the use of such words arouses so many mistakes that one can only keep aloof from them as much as possible.

These are the reasons why I could not give a full and sufficient explanation to Roland H., but I am risking it with you because I conclude from you very decent and honest letter that you have acquired a point of view above the misleading platitudes one usually hears about alcoholism

You see, "alcohol" in Latin is *spiritus*, and you use the same word for the highest religious experience as well as for the most depraving poison. The helpful formula therefore is: *Spiritus contra spiritum.*

Thanking you again for your kind letter,

I remain

yours sincerely
C.G. Jung

APPENDIX E

Corellation Coefficients for all predictor, exploratory and outcome variables

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	2	3	4	5	6	7	8	9	10	11
BACKGROUND VARIABLES										
1 Education	.33*	.10	-.10	-.12	.05	.17	-.06	.09	.13	.10
2 *Income*	---	.11	.27*	.12	-.04	-.18	-.27*	-.18	-.12	-.02
3 Age		---	.23	.05	.07	-.06	-.12	-.10	-.18	-.14
4 Marital Status			---	.20	-.03	-.15	-.09	-.09	-.02	-.02
5 Sex				---	-.11	-.26*	-.14	-.12	-.08	-.08
AA RELATED VARIABLES										
6 Attitude toward AA					---	.36*	.06	.32*	.57*	.06
7 AA Involvement						---	.18	.73*	.51*	.27*
8 AA Before Gateway							---	.26*	.20	.12
9 Average # of AA Meetings/Month .12									---	.40*
10 Future AA									---	.15
11 Religions Mysticism										---

	12	13	14	15	16	17	18	19	20	21
BACKGROUND VARIABLES										
1 Education	-.06	.15	.04	.11	.14	.21	.15	.08	.06	-.08
2 Income	-.02	-.01	-.04	-.00	-.10	-.07	-.16	.22	.16	.01
3 Age	-.14	-.24*	-.08	-.04	-.12	-.03	-.00	-.03	.12	-.10
4 Marital Status	-.06	-.06	-.05	-.14	.01	-.13	-.16	.07	.02	.04
5 Sex	-.04	-.01	.13	-.14	.00	-.16	-.13	.08	.27*	.02

Appendix E Continued

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	12	13	14	15	16	17	18	19	20	21
AA RELATED VARIABLES										
6 Attitude Toward AA	.05	.21	-.17	.17	.07	.13	.08	.00	.04	-.11
7 AA Involvement	.16	.46*	.06	.30*	.16	.21	.42*	-.15	-.17	-.00
8 AA Before Gateway	.14	.02	.01	.04	-.06	.07	-.02	-.24*	-.17	.07
9 Average # of AA Meetings/Month	.11	.32*	-.01	.05	.03	.17	.25*	-.19	-.17	-.08
10 Future AA	-.00	.39*	-.01	.24*	.20	.26*	.11	-.08	-.08	-.08
MYSTICAL SPIRTUAL AWARENESS VARIABLES										
11 Religious Mysticism	.54*	.33*	.19	.13	.17	.23	.36*	-.06	-.07	.00
12 Unitary Mysticism	---	.17	.08	.15	-.00	-.02	.23	-.09	-.09	.05
CONVENTIONAL SPIRITUAL AWARENESS VARIABLES										
13 Religious Well-Being		---	.43*	.39*	.43*	.32*	.52*	.18	-.00	-.16
14 Freedom			---	.50*	.07	-.00	.19	.10	.10	.02
15 Fruits of Spirit				---	.11	.02	.29*	.26*	.34*	-.15
16 Importance of Religion					---	.72*	.26*	.13	.12	-.24*
17 Attendance at worship						----	22	.13	.02	-.32*
18 Spiritual Self Perception							---	.12	.01	-.15

Appendix E continued

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	12	13	14	15	16	17	18	19	20	21
EXPLORATORY VARIABLES										
19 Perceived Father's Love								---	.50*	-.26*
20 Perceived Mother's Love									---	-.16
21 Perceived Father's Drinking										---

	22	23	24	25	26	27	28	29	30	31
BACKGROUND VARIABLES										
1 Education	-.10	.24*	.36*	.06	.12	-.10	-.17	.17	.12	.13
2 Income	-.16	.29*	.00	.13	-.12	-.19	-.09	.13	.03	-.07
3 Age	-.34*	-.11	.06	.07	-.11	.18	.00	.22	.11	-.19
4 Marital Status	-.02	.02	-.01	-.05	-.05	-.03	.08	.08	-.00	-.21
5 Sex	-.08	.08	.05	.03	-.12	-.20	.04	-.19	-.13	-.06
AA RELATED VARIABLES										
6 Attitude Toward AA	-.04	.09	-.10	.05	.26*	.24	-.03	.40*	.09	.19
7 AA Involvement	.18	.26*	-.06	.05	.32*	.08	.12	.40*	.04	.24*
8 AA Before Gateway	.15	-.15	.05	-.01	.06	-.03	.05	-.17	.00	.27*
9 Average # AA Meetings/Month	.14	.16	.03	.08	.27*	-.01	.03	.26	-.14	.13
10 Future AA	.11	.08	-.20	.01	.38*	.22	-.04	.21	-.04	.33*

Appendix E continued

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	22	23	24	25	26	27	28	29	30	31
MYSTICAL SPIRTUAL AWARENESS VARIABLES										
11Religious Mysticism	.23	.17	.04	.07	.11	.03	.08	-.04	.09	.40*
12 Unitary Mysticism	.27	.08	.07	.09	-.02	-.15	.16	-.05	.09	.37*
CONVENTIONAL SPIRITUAL AWARENESS VARIABLES										
13 Religious Well-Being	.03	.53*	.05	.07	.28*	.12	-.02	.04	.02	.34*
14 Freedom	.06	.52*	-.02	.16	.07	-.10	-.07	.03	-.09	.41*
15 Fruits of Spirit	-.02	.51*	-.04	.03	-.01	.12	-.02	.05	.09	.37*
16 Importance of Religion	-.04	.21	.18	-.26*	.44*	.48*	.11	.11	.09	.02
17 Attendance at worship	-.05	.11	.13	-.14	.50*	.34*	-.00	.19	.12	.14
18 Spiritual Self Perception	-.07	.29*	.01	.09	.15	.05	.14	-.08	.00	.30*
EXPLORATORY VARIABLES										
19 Perceived Father's Love	-.21	.34*	-.05	.09	-.13	-.07	-.10	.08	.12	.01
20 Perceived Mother's Love	-.33*	.26*	-.07	.06	-.08	.10	.10	-.08	.06	.04
21 Perceived Father's Drinking	.20	-.09	-.20	-.08	-.08	-.16	.19	.03	.02	.03
22 Perceived Mother's Drinking	---	-.00	-.17	-.16	.12	.03	.22	.05	-.20	.14
23 Existential Well-Being	--	.03	.05	.05	-.04	-.11	.18	-.03	.20	
24 # of Mystical Experiences	---		-.40*	-.04	-.04	-.01	-.27	.06	.08	
25 Race				---	-.15	-.16	-.29*	.16	-.15	.16

Appendix E continued

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	22	23	24	25	26	27	28	29	30	31
EXPLORATORY VARIABLES continued										
26 AA Encourages Religion					---	.39*	.10	.11	.05	.02
27 Religion Encourages AA						---	.22	.04	-.06	-.14
28 Age First Exposed to Religion							--	.09	-.08	.10
29 Age First Mystical Experience								--	.05	-.07
30 Completed Gateway									---	-.06
31 Belief in Probability of Mystical Experience										---

	32	33	34	35	36
BACKGROUND VARIABLES					
1 Education	-.13	-.17	.21	-.19	-.20
2 Income	-.18	-.09	.26*	-.26*	-.25*
3 Age	-.22	-.21	-.11	.19	.08
4 Marital Status	-.18	-.17	.10	-.08	-.05
5 Sex	.02	.12	-.08	.06	.12
AA RELATED VARIABLES					
6 Attitude Toward AA	-.07	-.00	.06	-.01	-.10
7 AA Involvement	-.08	-.06	.28*	-.13	-.32*
8 AA Before Gateway	-.15	-.04	-.02	.08	.01
9 Average # of AA Meetings/Month	-.09	-.05	.07	.04	-.12
10 Future AA	-.05	.04	.20	-.04	-.28*

Appendix E continued

Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	32	33	34	35	36
MYSTICAL SPIRTUAL AWARENESS VARIABLES					
11 Religious Mysticism	.05	.05	.11	-.05	-.10
12 Unitary Mysticism	.13	.02	-.01	-.00	.03
CONVENTIONAL SPIRITUAL AWARENESS VARIABLES					
13 Religious Well-Being	-.00	-.02	.21	-.18	-.21
14 Freedom	-.18	-.08	.12	-.11	-.12
15 Fruits of Spirit	-.10	-.06	.16	-.22	-.13
16 Importance of Religion	.06	-.07	.05	-.04	-.04
17 Attendance at Worship	-.08	-.19	-.00	.04	-.01
18 Spiritual Self Perception	-.22	-.20	.03	-.05	-.00
EXPLORATORY VARIABLES					
19 Perceived Father's Love	-.06	-.08	.01	-.08	.02
20 Perceived Mother's Love	-.03	-.02	.01	-.08	.00
21 Perceived Father's Drinking	.03	.15	.10	-.08	-.09
22 Perceived Mother's Drinking	-.06	-.01	.20	-.12	-.22
23 Existential Well-Being	-.21	-.18	.41*	-.40*	-.34*
24 # of Mystical Experiences	.25	-.10	-.19	.09	.26

Appendix E continued
Pearson Correlation Coefficients for all predictor, exploratory and outcome variables[a,b,c]

	32	33	34	35	36
EXPLORATORY VARIABLES continued					
25 Race	-.08	.07	.07	-.04	-.09
26 AA Encourages Religion	.02	.03	.02	-.01	-.05
27 Religion Encourages AA	.05	.02	-.12	.14	.08
28 Age First Exposed to Religion	.03	.08	-.12	.13	.12
29 Age First Mystical Experience	-.14	-.09	.30	-.22	-.31
30 Completed Gateway	.15	.05	-.03	-.03	.04
31 Belief in Probability of Mystical Experience	-.16	-.03	.01	.03	-.05
32 Choice of Opiate Drugs	---	.69*	-.29*	.24*	.27
33 Choice of Sedative Drugs		---	-.27*	.23*	.23*
OUTCOME VARIABLES					
34 Recovery			---	-.85*	-.95*
35 Alcoholic				---	.70*
36 Drinking Status					---

a Statistics provided are: pearson correlation coefficient
b N's for each correlation generally vary between 103 and 110 due to occasional missing values. However, due to the nature of the items some were much lower: # of mystical experiences (N=57), Religion encourages AA (N=83), Age first mystical experience (N=59).
c * indicates significance level of $p<.01$ two tailed test

APPENDIX F

110 respondents compared to random sample of 400 Gateway clients on 4 Background variables

Religion	N=400	N=110
Protestant	40.75%	32.41%
Jewish	------	------
Catholic	42.25	44.44
Other	8.50	9.26
None	8.25	13.88
Age		
Range	18--72	18--75
Average	38.65	44.38
Income		
Range	0--$150,000	<$3,000 to > $150,000
Average	$18,270	$25,000 to $29,000
Education		
Range	4 yrs to 24 yrs	grade school to grad degree
Average	12.71 yrs	some college

* Data on the 400 were drawn from Gateway intake files. Variables of Age and Income will tend to be greater for the sample of 110 due to the passage of one to four years since intake.

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