

NEPENTHE

Newsletter on Drug and Alcohol Issues published by the University of Washington Alcoholism and Drug Abuse Institute and the Washington State University Alcoholism Training and Research Unit

ISSUE NO. 9

DECEMBER, 1975

RECENTLY FUNDED RESEARCH AT THE UNIVERSITY OF WASHINGTON

The Review Committee for the Alcoholism and Drug Abuse Institute met in October and awarded funds to eight investigators. The studies funded ranged in scope from clinical to laboratory work for both alcohol and drug abuse. A brief review of the studies is given below:

Dr. John Chiles from the Department of Psychiatry and Behavioral Sciences was funded for a project attempting to help alcoholics with sexual dysfunction. He and his co-workers are developing a low-cost text which applies some of the lessons learned by Masters and Johnson to alcoholic populations. It is hoped that an improvement in sexual functioning will be paralleled by movement towards alcoholic recovery. (See accompanying article in this issue.)

Dr. Robert Elton of the Primate Center has received funds for his work on the importance of social interaction in alcohol intake in monkeys. His preliminary investigations have been the first to demonstrate that primates will voluntarily drink enough alcohol to become intoxicated. His methods also allow him to observe the importance of

social interactions and dominance on drinking behavior.

Dr. Thomas Hinds of the Department of Pharmacology is attempting to study the basis of the actions of alcohol on the cells. He will use as his model the red blood cell of rabbits and will look at the specific effect of chronic alcohol administration on calcium and magnesium as reflections of problems with cell functioning.

Dr. Alan Marlatt of the Department of Psychology is studying methods of prevention of alcoholism by working with heavy drinking social drinkers. A number of different approaches are used including referral to early treatment as attempts at intervening with cycles of drinking which may lead to alcoholism.

Dr. Robert Pagano of the Department of Psychology will receive support to carry out a study on the importance of tension reduction in the causation of alcoholism. He will deal with non-alcoholic subjects and will study the effects of various elements on the

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WSU RESEARCHERS TO STUDY ALCOHOL EDUCATION CURRICULUM

A team made up of Armand Mauss, Ronald Hopkins, William Rankin, and Nancy Fagan, all of whom are associated with WSU's Doctoral Training Program in Alcohol Research, recently were awarded an evaluation contract by Seattle's ESD #110 to study the impact of a new NIAAA-funded alcohol curriculum. The emphasis of the curriculum is upon decision making. The WSU research team will be evaluating the effectiveness of the curriculum on students by assessing such variables as coping skills and knowledge and attitudes toward alcohol.

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RESEARCH IN PROGRESS: SEXUAL DYSFUNCTION AND ALCOHOLISM

Alcohol has often been associated with sexual dysfunction. The classic description of this has been given by the porter in Macbeth. According to that source, alcohol increases sexual desire, but reduces the ability to perform. Drinking, indeed, in many cases, seems to lead to sexual performance difficulties. A question less asked is, do sexual difficulties have any role in perpetuating alcoholism? There is some indication that they might.

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Nepenthe (ni-pen thi), n. (L. Gr. nepenthes, removing sorrow ne-, not + penthos, sorrow, grief) 1. a drug supposed by the ancient Greeks to cause forgetfulness of sorrow, 2. anything causing this state.

RECENTLY FUNDED RESEARCH, UW

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reduction of anxiety in subjects.

Drs. Harvey Schiller and Ronald Gellert of the Department of Obstetrics and Gynecology will receive funds for their study of the effects of marijuana on the reproductive systems. They will observe the importance of brain actions as well as peripheral actions of the drug on the reproductive mechanisms of both male and female rats.

Dr. John Simpson of the Department of Psychology will receive support to study the effect of alcohol on antidiuretic hormone secretion. The experiments will examine the involvement of brain structures known to be important in the regulation of fluid in the body and their interactions with alcohol. (See accompanying article in this issue.)

Dr. Bonnie Worthington of the Nutrition Section of the Child Development and Mental Retardation Center has received a grant for her work on the effects of alcohol on the digestive tract. She will use animal models, primarily the rat, to observe the actions of alcohol on the effectiveness of the intestinal lining in preventing the leakage of harmful bacteria and poisons into the body.

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SEXUAL DYSFUNCTION AND ALCOHOLISM

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The Al-Anon group has identified poor sexual relations as a fundamental stress in marriages of alcoholic and reformed alcoholic males. Some recent research findings suggested sexual problems may occur prior to alcohol addiction in some people. A 1968 study by B. Kinsey identified a group of patients whose sexual dysfunction was a precipitating factor in their alcoholism, and who state that alcohol was chosen by them for its ability to relieve anxiety caused by heterosexual contacts. Work done by Kogan and Jackson at the University of Washington found that wives of alcoholics perceive themselves and their husbands in an atypical manner regardless of the husband's sobriety. They concluded that in many of these marriages, the husband's drinking per se is a secondary issue to the fact that the marriages themselves are often uncomfortable and unrewarding. Several other works show that the alcoholic and his or her partner frequently express dissatisfaction with their sexual adjustment, particularly as it relates to technique or the physical satisfaction. This evidence indicates that the sexual problem should be treated as a couples' problem rather than an individual

ADAI SUMMER INSTITUTE
RECEIVES WIDE PUBLICITY

The summer workshop sponsored by the Alcoholism and Drug Abuse Institute, "Behavioral Approaches to Alcoholism and Drug Dependencies," which occurred July 31 and August 1, 1975, has received nationwide attention. One of the major drug newsletters in North America, The Journal of the Addiction Research Foundation in Toronto, Canada, devoted two pages of its September issue along with a number of pictures of the workshops. In addition, the Physicians' Alcohol Newsletter of the National Council on Alcoholism (October 1975) included a several page report summarizing the findings of Dr. John Ewing which was presented at the Conference.

Taped proceedings of the Conference are available for purchase. For additional information, contact the Office of Short Courses and Conferences at the University of Washington (543-5280).

Sexual Dysfunction (continued)

problem, and therefore the sexual therapy should be a generic one, rather than focusing on a specific symptom such as erectal dysfunction.

This kind of information has given a research group at the Alcoholic Treatment Unit at the Seattle Veterans' Administration Hospital the idea of devising a treatment plan for couples, one or both of whom is a recently abstinent alcoholic, who complains of sexual dysfunction. The program is designed to use a number of well accepted behavior techniques presented to the couples as a series of maneuvers and ideas that will help them learn about themselves and each other. The information gained from the study should be useful in answering several questions. Is such treatment reasonably successful with this population? Will this kind of treatment have a positive influence on future bouts of alcoholism? Will this kind of treatment generalize, i.e., will the couple, by undergoing a course of treatment for sexual dysfunction, find that they have a more satisfactory overall relationship? If these questions are answered favorably, the work should lead to another treatment modality for the alcoholic.

John A. Chiles, M. D.

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M.S.K.

AGE AND INTOXICATION IN YOUNG AND ADULT RATS

Differences in blood ethanol concentration (BEC), total body water, and ethanol toxicity between young (31-36 day old) and adult (100-150 day old) rats were compared in a study recently reported by John Ernst and his co-investigators at Washington State University. Differences in BEC were tested at three doses (3, 4, and 5 g/kg) and at three post-injection intervals (15, 90, and 240 min.). Five measures were used to assess age differences in ethanol toxicity at the same three doses. The BEC results indicated (a) that younger rats had lower BEC's than the adult rats at all doses and post-injection intervals, and (b) that BEC was a linearly increasing function of

dose. The body water results indicated that young rats had a significantly higher body water content than the adult rats. The toxicity results indicated that, although the young adult rats did not differ in the rate at which the righting reflex and ability to stand were lost, the young rats showed significantly faster recovery of the righting reflex, reflexic movements, and locomotor ability. Moreover, the greater the ethanol dose, the greater the differences in recovery rates found between young and adult rats. This research was supported by a U. S. Public Health Service Grant and by a Grant-In-Aid from Washington State University.

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ILLICIT DRUG USE AND CAREER CHOICE

The results of a recently completed sizeable longitudinal study of drug use and occupational preference among male university students were reported by the senior researcher for the study, Robert Somers, at the April Pacific Sociological Association meetings in Victoria, B. C. The study was supported by a National Institute on Drug Abuse Grant and carried out by Somers, Mellinger and Mannheim of the Institute for Research in Social Behavior in Berkeley.

Probability samples of two cohorts--entering freshmen and juniors--were interviewed in 1970-71, and a mail-back questionnaire was administered two and one-half years later. Nearly 1,000 male freshmen were interviewed and 834 returned follow-up questionnaires. Though the context of the larger study, begun in 1969, was an investigation of changing values and life styles among university men, the findings reported at the Conference focus on the relationship between drug use and occupational choice, as an indication of changing norms and behavior patterns.

The study proposed to test a hypothesis suggested in previous studies, that drug users are more likely than non-users to major in the social sciences or humanities, from which inferences can be drawn about career choice. More specifically, the study sought to differentiate types of drug users and relate this to occupational preference. Sub-hypotheses developed were: 1) those with the highest levels of drug use are most likely to be alienated with respect to conventional values and likely to choose a career in the arts, 2) those with little or no drug experience are likely to be "succeeders" in the traditional American sense, planning careers in business or the natural sciences, and 3) those with a moderate level of drug use would tend to have activist values and to have a professional interest in the social sci-

WSU RECEIVES APPLIED ALCOHOLISM RESEARCH GRANT

Alcohol Studies at Washington State University, in cooperation with the Psychology and Sociology Departments, will be training pre- and postdoctoral students in applied alcohol research. The program, supported in part by a four year NIAAA grant, began in September with the appointment of nine graduate students, six from psychology and three from sociology. Still to be filled are one graduate student position and two postdoctoral positions. Applications for the postdoc training currently are being accepted.

The training program emphasizes evaluation and prevention research. Students must have completed at least two years of graduate work prior to appointment, making it possible for the most part to concentrate on research and course work related to alcohol research.

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ences. The researchers feel the study supported these hypotheses in the sense that such patterns were identifiable among Berkeley students in 1973. Current drug use was defined in the study in terms of the degree of use within the six months prior to filling out the questionnaire. The indices used to measure career choice were not identified in the paper, and it is not clear whether the variable consists of one's realistic expectations and plan for a career, or simply one's current preferences if all else were equal. Since plans and preferences undergo considerable change between the freshman year and graduate school or employment, this distinction in the questionnaire would be important to know.

The findings are provocative. Of the freshmen interviewed, only 9% of those planning a career as writers or artists had never used drugs. The next smallest percent of never-users were those planning to become

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RESEARCH IN PROGRESS:
DECriminalIZATION OF PUBLIC INEBRIATION

Paul A. Pastor, Jr., recently graduated from the Department of Sociology at Yale, has been awarded an ADAMHA postdoctoral fellowship to conduct research on public drunkenness under the sponsorship of the Alcoholism and Drug Abuse Institute. The research is a replication of an earlier Institute-funded project which investigated the practices of the Seattle Police Department in the control of public inebriates. The earlier study dealt with police control practices during a period when drunkenness was still a criminal offense in the State of Washington. The current study investigates police practice under the current decriminalized status of public drunkenness. Like the earlier study, it involves direct observation of police officers in their day-to-day work. When completed next year, the study should yield information regarding the continuing law enforcement role in the control of public inebriates and thus aid in the assessment of the impact of decriminalization at the pre-treatment level.

APPLIED ALCOHOLISM RESEARCH GRANT, WSU
(continued from page 3)

Two Research Coordinators have been appointed to the training program. Dr. Daniel Burt, a psychologist, came from a position as Chemical Dependency Coordinator at the Western Human Development Center in Marshall, Minnesota. Dr. Burt spent over a year as a researcher at Schick's Shadel Hospital in Seattle and was engaged in alcohol treatment and research at the Minnesota Center. He also has an appointment as an Assistant Professor of Psychology. Dr. Armand Mauss, Associate Professor of Sociology, will serve as Research Coordinator for the sociology students. He has been on the faculty at WSU for a number of years, and has been active as a teacher in the Master's Program and in carrying out research on Skid Road in Seattle.

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ADDICTIVE BEHAVIORS: AN INTERNATIONAL JOURNAL

July 1975 marked the date of initial publication for this new journal in the fields of alcoholism, drug abuse, smoking and obesity. Dr. Peter Miller of the University of Mississippi's Department of Psychiatry and Human Behavior is the Editor-in-Chief.

In the editorial which accompanies the first issue, four current needs for the development of knowledge in these problem areas are specified, and it is indicated that the selection of articles to be published in this journal will be useful in addressing these needs.

First, the editors note that there is an abundance of "expert" quasi-theoretical articles in the literature today which are based on very minimal scientific information. Frequently, as a result of such articles, treatment "fads" have taken hold in the treatment community. The authors use the many "miracle diets" as an example of such innovations. Therefore, the first need which this journal seeks to address is the "con-

tinuing disparity between immediate clinical needs of a vast number of individuals and the relative lack of scientific information on the nature of addictions." Articles which deal with the development of objective assessment procedures will be published in this journal in order to further both an understanding of the causes and forces which maintain addictive behaviors, as well as the long-term effectiveness of various treatment modalities.

A second need which this journal hopes to address is that of relevance to prevention and clinical practice. In seeking reports of basic research to include in future issues of the journal, it appears that the editors will heavily weight those empirical studies which speak to the relevance of such studies for clinical practice and/or prevention.

A third need pertains to the fairly common isolation of studies concerning the various forms of addiction.

Noting that some clinical procedures that have been found effective in dealing with obesity might also be effective in decreasing cigarette consumption, the editors decry the isolation of clinicians and researchers working in these individual fields and wish to promote, through the publication of this journal, a more open system of information sharing and advances in knowledge. Supporting further research in the interrelationships among addictive behaviors will also be a purpose for the selective choice of articles to be published in this journal.

A fourth need speaks to the sharing of research ideas and findings among disciplines. The editors note that "each of the addictive behaviors may have various components that are sociological, physiological, and psychological in nature." Researchers in these fields tend to stress their own orientation to the exclusion of others. This may lead to an oversimplification of the nature of ad-

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ADDICTIVE BEHAVIORS JOURNAL

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diction.

Addictive Behaviors, as a new journal in alcoholism, drug abuse, smoking and obesity, promises to significantly add to the development of knowledge and the enhancement of prevention and treatment. We wish it well and encourage readers of "Nepenthe" to make use of this important new publication.

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ILLCIT DRUG USE AND CAREER CHOICE

lawyers or non-college teachers. In contrast, 38% of those planning to become engineers were never-users, and the next largest group of never-users was that group planning scientific and managerial careers.

About half of the freshman sample gave responses about the job setting which they preferred. Those preferring business, a large corporation, or a hospital or medical clinic, were those least likely to have used drugs, whereas those with the highest marijuana and other drug use preferred stage, theater, concert hall, or a free-lance setting. The small group who preferred work with poverty or minority groups, or teaching in elementary or secondary schools, were the most likely to be using only marijuana as juniors. Those expecting to be part of a small business were most likely to be using marijuana and other illicit drugs as juniors.

When traditional prestige ratings were assigned to career choices, the study indicated that those with higher levels of drug use tended to respond to the lower end of the occupational prestige hierarchy. Students who as freshmen were using marijuana and other drugs were seven times as likely as non-user freshmen to select a career in the lower prestige range at the time of their junior year. Degree of current drug use was, in fact, inversely related to interest in occupational security and prestige. The researchers take this to be supportive of the contention that illicit drug use is associated with distinctive countercultural attitudes and values.

To determine the influence of drug use as a freshman on the choice of career as a junior, a multivariate analysis was done using regression techniques with cross tabulations to permit a detailed investigation of the relationships summarized by the regression coefficients. To do this, students were divided into two groups on the basis of how traditional their values were, as measured by self-descriptions--for example, the index of unconventionality was a description of oneself as "critical of conventional moral values and practices." Though controlling for the persistence of the freshman year career choice, for unconventional val-

Illicit Drug Use (continued)

ues as a freshman, for father's politics and family income, and the size and character of the student's high school community, reduced the regression coefficient, the results still suggested that the degree of freshman drug use did have some (if admittedly small) impact on choice of a career as a junior. Interestingly, when conventional values and traditional occupational choices were held constant, the use of illicit drugs appeared to have little effect on freshmen with unconventional values, and a significant influence on freshmen with conventional values. But these results did not hold true for freshmen with a Jewish or liberal Protestant background, and were accentuated among freshmen with a Catholic background or those who went to urban high schools.

The researchers conclude that, although other significant variables may be at work, the data suggest that illicit drug use by freshmen "increased the likelihood" of their selecting a less traditional career in their junior year, especially if they entered college with conventional views and were urban or Catholic.

-Ann Blalock

Research in Progress: THE BRAIN AND THE DIURETIC EFFECT OF ALCOHOL

Ethyl alcohol, as ingested in alcoholic beverages, has many diverse effects on metabolic and physiological processes of body. One prominent physiological effect of alcohol, which is a frequent anecdote among users of alcohol, is that diuresis is increased following alcohol ingestion. By this it is meant that the rate of urine excretion is enhanced, often resulting in a "dehydrated" sensation--accompanied by thirst--after a bout of alcohol ingestion. As an overview, the rate of diuresis is proportional to the rate of water ingestion; however, alcohol alters this relationship such that water loss through diuresis exceeds that predictable from the quantity of water ingested in alcoholic beverages.

The rate of urine formation is primarily under the control of the pituitary gland hormone, antidiuretic hormone (ADH). This hormone, as its name implies, acts on the kidney to reduce the amount of water passed during diuresis. It is also appreciated that a variety of brain systems act to control or to modulate pituitary secretion of ADH. While we understand that in some manner alcohol reduces the amount of ADH released, and thus causes an inappropriate diuresis, we do not know where and how alcohol acts on the brain to produce this effect.

We do, however, have a fairly good knowledge of where physiological stimuli other

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RESEARCH IN PROGRESS

A COMMUNITY MENTAL HEALTH CENTER'S APPROACH
TO CHEMICAL DEPENDENCY (PART II)

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(Part I of this article concerning Mental Health Month appeared in the last issue of "Nepenthe")

The Drug Abuse Program

By the early 1960's, illegal drug use in the U.S. had increased significantly and abuse had shifted from a selective emphasis on opiates to the use of other psychoactive drugs. This precipitated the Drug Abuse Control Amendments which brought the amphetamines, barbiturates, and hallucinogens under the federal control and increased the caseload of drug abuse clients in mental health centers, both those referred from the courts and self-referrals. The 1970 Comprehensive Drug Abuse and Prevention Act appropriated funds for expanding the role of community mental health centers, both public and private, in the area of drug treatment services. The official funding agency for these services is now the National Institute for Drug Abuse, which funds 75% of the total cost of MHN's drug abuse program.

In 1974 MHN's funding involved two contracts with the Center for Addiction Services in King County, which coordinates all county residential treatment and information and referral centers. The clinic's drug abuse program had approximately 80 admissions this past year. More of these clients than alcohol-related cases presented problems sufficiently severe to require referral to a CAS detoxification program. But as a mental health center, the program has again focused on outpatient services prior to clients reaching the stage where detoxification was necessary, or on counseling simultaneously with or after completion of a detox program. Some of the drug-involved clients are seen in emergencies and referred to appropriate centers, and some are on methadone maintenance while in counseling.

Mike Sharpe's caseload includes the full range of

drug-related involvement, opiate and non-opiate. The largest group seen at the clinic is between twenty and thirty years old, and nearly all are white. The majority are on public assistance, and the next largest category are unemployed. Many of the clients have been referred to MHN by the courts, as an alternative to incarceration or as a required part of probation. They often bring a general alienation to the counseling situation, and motivation to change in a non-voluntary client becomes the counselor's primary challenge. The majority lack occupational skills and steady employment patterns, tend to have less than a high school education and evidence general emotional disturbance. They typically use drugs in a destructive way to cope with multiple problems. Polydrug use is not uncommon with shifting between alcohol and other drugs a frequent pattern. Sound diagnosis, the development of a treatment plan, and the assessment of medication needs are major objectives.

The long-range goals of the clinic's drug abuse program are to provide preventive educational services for adolescents and preadolescents, establish a closer liaison with the juvenile court, consult with other community agencies about developing a residential treatment facility in North King County, and expand the drug abuse counseling staff to meet the steady increase in requests for treatment.

Education and Prevention

Counseling is a major ingredient but only one part of MHN's chemical dependency programs. Community education is a critical aspect, and approximately one-fourth of staff time is allocated to community consultation and education. Staff feel that they also provide important input to other MHN

than alcohol act within the brain to affect body fluid homeostasis. That is, we know where physiological stimuli act to cause a net loss of water--through action on the secretion of ADH --and where stimuli act to cause a net gain of body water--through the elicitation of thirst and water ingestion. The aim of our studies is to attempt to specify where in the brain alcohol acts to produce its diuretic effect. We are studying neural systems implicated already in the control of ADH secretion and in the control of thirst for possible involvement in the diuretic effect of alcohol. By understanding how and where in the brain alcohol acts to promote diuresis, we will have potentially valuable knowledge on how alcohol acts on normal and abnormal body fluid physiology.

-John B. Simpson, Ph.D.

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MAJOR DRIVE TO ESTABLISH
OCCUPATIONAL ALCOHOLISM
PROGRAMS

The National Council on Alcoholism recently initiated a three-year project concerning occupational alcoholism. With a 2.7 million dollar grant from the National Institute on Alcohol Abuse and Alcoholism, NCA seeks to establish at least 90 major labor/management alcoholism programs embracing at least a million workers in ten target cities in the United States. The Project Administrator is James S. Ray of the NCA. Atlanta, Georgia is the first city in which a task force was established through this project.

One of the key elements of the approach being employed by NCA is the full cooperation of labor and management in designing and implementing each program. This model has a national prototype in a labor/management committee co-chaired by President George Meany of the

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MHC'S APPROACH (PART II)

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counselors with respect to sensitivity to the indicators of beginning and well established abuse patterns in clients who initially present other problems.

The Adolescent Education, conducted by Mike Rona, is basically a preventive educational effort, a presentation of factual information about alcohol and its effects, given in three one-hour sessions. About 80% of the 300 participants have been male, between the ages of 15 and 25. Ninety-five percent have been referrals from Capital Social Agency Referrals, five percent from the Juvenile Court - but the program is open to all adolescents in the area. The target group the program most wants to reach is beginning problem drinkers, and those who are living in a problem drinking environment in their families. The thrust of the educational-preventive component of the staff's activities in both client groups is to examine with community residents both the myths and realities of alcohol and drug use.

Outlook for the late 1970's

The staff feels there are many needs still to be met which currently outrun the capacity of the community's present resources: Detoxification services, intensive inpatient treatment, extended care services, rehabilitative half-way houses, and occupational programs. They also identify two client groups in particular who need more attention: Women and adolescents. County funding with public support will be the crucial variable in whether such needs gain an adequate response.

-Ann Blalock

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OCCUPATIONAL ALCOHOLISM PROGRAMS

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AFL-CIO and James Roche, Director and former Board Chairman of General Motors.

An eleven-page booklet describing this approach is entitled "A Joint Union-Management Approach to Alcoholism Recovery Programs" and may be obtained for the price of \$1.00 by writing to: NCA Labor Management Services, 2 Park Avenue, Suite 1720, New York, NY 10016.

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PSYCHEDELIC "POISON" MUSHROOM STUDIED

A recent article in Physiologic Chemistry and Physics (Volume 7, 1975), written by Drs. Ott, Wheaton, and Chilton, described the properties of the mushroom *Amanita Muscaria*,

THE NATIONAL DOCUMENTATION INSTITUTE: AN ATTEMPT TO ESTABLISH A TAX-EXEMPT ANTI-MARIJUANA DECRIMINALIZATION LOBBY

It appears that Senator James Eastland and others have taken steps to establish a tax-exempt foundation called the National Documentation Institute for the specific purpose of combating marijuana decriminalization. This organization is currently sending out mailings, seeking financial support, and using stationery printed to imply that the Institute is associated with the United States Senate.

Much of the material which the National Documentation Institute is distributing speaks in alarmist and extremist terms of the dangers of marijuana. As an example: "Not only is it harmful, but leading scientists are on public record as being of the opinion that it is the most harmful drug with which we must contend. By leading the nation into accepting the concept of decriminalization and ultimately legalization, the Masters of the Media are deliberately distorting the truth..... in fact paranoid behavior can be expected from two out of three users!"

Also quoted as part of their letterhead stationery is the following quote from Thomas Jefferson: "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man."

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NEPENTHE STAFF: Roger A Roffman, Assistant Professor, School of Social Work-UW, and Aldora Lee, Coordinator, Alcoholism Certificate Program-WSU -- co-editors.

Staff: Ann Blalock and Jane Ramsey

For further information regarding NEPENTHE, contact Jane Ramsey at 543-0937.

which is considered by the Western World to be poisonous. However, it has been the practice among Eskimos and other indigenous groups of the Northwest to use the mushroom for intoxication and the production of euphoria. Of two chemicals likely to produce the effects observed in humans, ibotenic acid is probably the more important substance. The authors have established ways of isolating and are presently in the process of studying many of the properties of this substance.

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