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ABSTRACTS

PRESIDENTIAL ADDRESS
Chair: *George Bigelow*, The Johns Hopkins School of Medicine, Baltimore, MD.

BEHAVIORAL CONSEQUENCES OF ACTIVATION AND ANTAGONISM AT THE PCP/NMDA RECEPTOR COMPLEX. Robert L. Balster. Medical College of Virginia, Virginia Commonwealth University, Richmond, VA.
(Abstract not available)

INVITED ADDRESS
Chair: *Nancy A. Ator*, The Johns Hopkins University School of Medicine, Baltimore, MD

COCAINE RECEPTORS; SIGNIFICANCE FOR PSYCHOPHARMACOLOGY. Roger D. Spealman. New England Regional Primate Research Center, Harvard Medical School, Southborough, MA.
(Abstract not available)

INVITED ADDRESS
Chair: *Chris Ellyn Johanson*, Uniformed Services University of the Health Sciences, Bethesda, MD

ALCOHOL EFFECT AND SEX HORMONES IN MAN AND WOMAN. Jack E. Mendelson. Alcohol and Drug Abuse Research Center, Belmont, MA.
(Abstract not available)

NEW FELLOWS ADDRESS
Chair: *John Grabowski*, University of Texas Health Science Center at Houston, Houston, TX

MOTIVATIONAL DETERMINANTS OF ALCOHOL USE: A THEORY AND ITS APPLICATIONS. W. Miles Cox. North Chicago VA Medical Center, University of Health Services, The Chicago Medical School, North Chicago, IL.

The motivational model of alcohol uses conceptualizes the biological, psychological, and environmental determinants of alcohol use as feeding through a motivational pathway. The motivation to drink depends on the balance between the satisfaction that a person expects to find by drinking alcohol and the emotional satisfaction that he or she expects to obtain nonchemically. One set of factors affecting drinking is a person's nonchemical positive incentives (that enhance positive affect) and nonchemical negative incentives (that intensify negative affect). Systematic Motivational Counseling focuses on alcoholics' nonchemical incentives, aiming to maximize the emotional satisfaction that they derive from them, thereby reducing their motivation to seek emotional satisfaction by drinking alcohol.

BEHAVIORAL EFFECTS OF NICOTINE: INTERACTIONS WITH EXPERIENCE. Charles Ksir. University of Wyoming, Laramie, WY.

When rats are given injections of nicotine and their activity is monitored by any of several means, the effect of an initial dose of nicotine in the range 0.1 to 0.4 mg/kg depends upon whether the rats had previously been adapted to the test environment. Since rats not adapted to the environment show higher activity levels under control conditions, we may interpret this as demonstrating the drug effect's dependence on the baseline activity level. If the injections are repeated once per day for five days, then nicotine produces a consistent, dose-related "stimulant" effect (increased locomotor activity).

NEW FELLOWS ADDRESS
Chair: *Alice Young*, Wayne State University, Detroit, MI

DISCRIMINATIVE STIMULUS EFFECTS OF DRUGS ACTIVE AT THE BENZODIAZEPINE/GABA COMPLEX. Nancy A. Ator. The Johns Hopkins University School of Medicine, Baltimore, MD.
(Abstract not available)

THE EFFECTS OF DRUGS ON SUPPRESSED RESPONDING. John R. Glowa. National Institute of Mental Health, Bethesda, MD.

Drugs that increase suppressed responding are effective anxiolytics in clinical settings. The high correlation between these two behavioral effects of anxiolytic drugs has maintained an interest in obtaining a better understanding of behavioral and pharmacological mechanisms associated with these effects. Such an understanding may lead to better drugs and better strategies to treat the clinical phenomenon for which they are taken. Currently, the most widely prescribed anxiolytic is the 1,4 dibenzodiazepine, alprazolam (Xanax). The effects of alprazolam on various types of suppressed responding, and in different species, are compared. Studies designed to assess (a) the ability of alprazolam to serve as a discriminative stimulus, especially under conditions where responding is suppressed, and (b) the ability of stimuli associated with the precipitated withdrawal from chronic alprazolam administration to serve as noxious stimuli, are described. Studies that contrast the effects of drugs on the development of response suppression and established responding that is suppressed are discussed. These studies are discussed in terms of potential behavioral mechanisms of anxiolytic drug action. Studies assessing potential serotonergic, cholinergic, noradrenergic, and GABAergic mechanisms associated with the behavioral effects of alprazolam are reviewed to emphasize the complexity of systems involved in the actions of drugs on suppressed responding. Finally, the notion that clinically related changes in physiological systems may set the occasion for some of the behavioral effects of anxiolytic drugs on suppressed responding is entertained. The study of the behavioral pharmacology of response suppression has been fundamental in

providing information relevant to the clinical effects of drugs on behavior.

YOUNG PSYCHOPHARMACOLOGIST AWARD AND INVITED ADDRESS

Chair: *Larry Byrd*, Yerkes Regional Primate Research Center, Emory University, Atlanta, GA
(Awardee to be announced)

SYMPOSIUM

Self-Quitters: Smoking Cessation in the Real World
Chair: *John R. Hughes*, University of Vermont, Burlington, VT

SMOKING CESSATION: A COMPARISON OF AIDED VS. UNAIDED QUITTERS/ATTEMPTERS. Gary A. Giovino. Center for Disease Control, Rockville, MD; John R. Hughes. University of Vermont, Burlington, VT; John P. Pierce. University of California, San Diego, CA; and Stephen E. Marcus. Center for Disease Control, Rockville, MD.

National survey data indicate that over 90% of the people who quit smoking between 1976 and 1985 did so without the help of formal cessation programs. If the smokers who get help differ from those who quit on their own, then the external validity of studies of program attenders may be challenged. Data from two national probability sample surveys, the 1986 Adult Use of Tobacco Survey (AUTS) and the 1987 National Health Interview Survey (NHIS) Cancer Control Supplement, will be employed to generate a profile of smokers in the United States. Analyses of the AUTS indicate that, in 1986, of all current cigarette smokers 52.9% were male; 85.3% were White and 11.7% were Black; 6.3% were Hispanic; 66.4% were married/cohabitating and 16.4% were never married; 28.1% had attended college; 19.9% of those employed were employed in administrative/technical occupations; 36.1% had never made a previous attempt to quit; and 6.8% smoked cigars and/or pipes. The mean age of these smokers was 40.5 years (S.D. = 14.9). They had smoked an average of 21.0 cigarettes (S.D. = 12.1) per day for an average of 21.7 years (S.D. = 14.2). This profile of all current smokers in the United States will be updated and expanded upon with data from the 1987 NHIS. In addition, descriptions will be provided of current smokers who have quit for at least one day in the previous year and of former smokers. The 1986 AUTS data will be used to compare current smokers who attempted to quit on their own with current smokers who attempted to quit using formal programs. Comparisons of former smokers who quit with and without formal programs will also be made. Variables available for analysis include demographic characteristics, smoking characteristics, and several psychosocial variables (e.g., intention to smoke in five years, reasons for quitting, and presence of worksite smoking restrictions).

PREDICTORS OF EARLY RELAPSE. Arthur J. Garvey, Ryan E. Bliss and Kenneth D. Ward. VA Outpatient Clinic, Boston, MA.

Most studies of relapse have dealt with the 5% of smokers who attend special stop-smoking programs, despite evidence that this population is quite different from the large majority of smokers who make unaided quit attempts (self-quitters). The purpose of this study was to examine biological and behavioral factors related to relapse in a sample of self-quitters. Subjects (N = 112) were recruited from newspaper advertisements. Each subject was interviewed prior to cessation, then reinterviewed at 1 day postcessation, 3 days postcessation, 8, 15, 30, 45, 60 days postcessation, and then monthly thereafter for a total follow-up period of 1 year. Information collected included a complete smoking history, indices of social support, motivation, confidence in the ability to succeed in the quit attempt, self-reported withdrawal symptoms, and objective indices of withdrawal such as heart rate, blood pressure, weight, and catecholamine excretion. Subjects ranged in age from 24–76 years (mean = 45 years). Sixty percent were males, approximately 50% were college graduates, and mean amount smoked was 28 cigarettes/day. Relapse was very rapid, with 23% relapsed by 1 day postcessation, 66% by 7 days, and 76% by 14 days postcessation. The very earliest relapsers tended to be of lower eduction, higher on amount smoked, and lower in confidence. Dramatic decreases in heart rate, blood pressure and catecholamine excretion were observed after cessation, but these changes were similar for relapsers and abstainers. Self-reported withdrawal (e.g., restlessness, inability to concentrate) likewise did not have major effects on relapse, though there was a slight trend for those who relapsed after day 3 to report more distress at day 3. Results reinforce earlier findings of extreme rapidity of relapse for self-quitters. Behavioral parameters (e.g., confidence, education) seem to predict relapse better than do biological variables. Surprisingly, severity of withdrawal was not significantly related to relapse. Findings suggest that self-quitters need to be especially vigilant in the early days after quitting, and that additional attention needs to be given to the smoker's preparation for quitting.

SITUATIONAL DESCRIPTORS AND COPING IN HIGH RISK AND RELAPSE SITUATIONS. Ellen R. Gritz, Clifford R. Carr and Alfred C. Marcus. University of California, Los Angeles, CA; Saul M. Shiffman. University of Pittsburgh, Pittsburgh, PA; and Donald R. Shopland. National Cancer Institute.

Smokers who volunteered to stop smoking without formal assistance on either the Great American Smokeout or New Year's Day (N = 554) were followed for one year. At each follow-up those who had stopped smoking were asked to describe their highest risk or relapse situation and how they coped with that situation. Abstainers and Relapsers were compared on the characteristics of their high risk and relapse situations and their coping techniques. A total of 868 instances of high-risk/relapse situations were described by all subjects across all follow-ups. The highest percentage of the situations occurred at home (38%), from 5 to 9 p.m. (36%), while the subject was alone (35%). The most common affect identified was anxious/nervous/tense (30%), 26% of the subjects were socializing at the time, and 46% were experiencing withdrawal symptoms. Forty-one percent of the subjects reported that how they were feeling was the most important trigger for the situation. The results of a discriminant analysis comparing Abstainers and Relapsers on the descriptors of the situation (place, time, affect, activity, withdrawal symptoms, trigger, presence of other persons, whether the other persons were smoking) will be reported. Subjects were asked to report, in an open-ended format, three thoughts or actions they used to cope with each high-risk/relapse situation. Three coping techniques were used in over ten percent of the situations, two cognitive and one behavioral: willpower (15%), "don't blow it now" thoughts (13%), and oral substitutes (14%). Abstainers and Relapsers were compared on the number of coping techniques employed; the number of cognitive and behavioral techniques employed; whether a cognitive, behavioral, or any coping technique was employed; whether either cognitive or behavioral techniques were employed exclusively; and the technique employed. The results of a cluster