

the session in all conditions. The greatest improvement occurred after smoking the medium nicotine delivery cigarette which was always the subject's usual brand. Accuracy on this task deteriorated after smoking a low-nicotine delivery cigarette. The results suggested a direct effect of nicotine dose on memory performance.

EFFECTS OF EXERCISE AND DIET ON NICOTINE CESSATION WEIGHT GAIN. Kathryn A. Popp. Uniformed Services University of the Health Sciences, Bethesda, MD.

One reason given by smokers for continuing to smoke in spite of health consequences is that smoking controls body weight. Finding ways to prevent smoking cessation-induced weight gain may help reduce the number of smoking-related deaths. This study examined the effects of exercise and the availability of sweet food on weight gain resulting from the cessation of chronic nicotine administration in rats. Exercise reduced rate of weight gain, proportion of body fat and fasting plasma insulin levels. Restricting access to sweet food reduced proportion of body fat and fasting insulin levels.

MULTIDIMENSIONAL SCALING FOR MEASURING ALCOHOL EXPECTANCIES. Bruce Rather, Brian Levine and Mark Goldman. University of South Florida, Tampa, FL.

Although expectancies for alcohol have been shown to influence drinking behavior, current expectancy questionnaires do not lend themselves to the study of how expectancies are represented in memory. Two studies are described which utilize statistical techniques (e.g., multidimensional scaling) that are designed to produce hypothesized representations of cognitive structures. In one study, the cognitive representation of effects for alcohol are presented for heavy versus light drinkers. In another study, drinkers' representations of the effects of alcohol are compared across situations. Both studies yielded "cognitive maps" which suggest mechanisms by which decisions to drink are made.

AGGRESSION ATTENUATES PSYCHOMOTOR STIMULANT EFFECTS OF d-AMPHETAMINE, MDMA AND PCP. M. Haney and Klaus A. Miczek. Tufts University, Medford, MA.

In a protocol that concurrently assessed drug effects on conditioned performance and aggressive behavior, d-amphetamine, and to a lesser degree MDMA and PCP increased FI responding. AMPH but not PCP or MDMA enhanced fighting in a subset of mice. MDMA's suppressive effects on conditioned performance and fighting are amplified following 5HT₂ receptor antagonism. D1 antagonists blocked the enhancing but not the suppressive effects of AMPH on schedule-controlled and aggressive behavior. Multiple fighting experiences also attenuated the stimulatory properties of amphetamines and PCP. Behavioral experiences that modify DA and 5HT systems alter sensitivity to psychomotor stimulants.

DEPRESSION AND ADJUSTMENT PROBLEMS IN COCAINE AND OPIOID ADDICTS. Robert M. Malow, Jeffrey A. West, Jose Pena and Criss W. Lott. VA Medical Center and Tulane University Medical Center, New Orleans, LA.

Affective and adjustment symptoms among compulsive cocaine users have not been thoroughly evaluated, and it is unclear how this subgroup might differ clinically from drug users currently abusing opioids. This study compared subgroups of cocaine and

opioid users on global measures of subjective distress, specifically anxiety and depression, and on various self-reported psychopathology symptoms. In contrast to compulsive cocaine users, opioid addicts were characterized by significantly greater problems with depression and adjustment. Results are consistent with earlier research indicating less psychopathology among cocaine abusers than opioid addicts.

ETHANOL CONSUMPTION AS A FUNCTION OF INCREASING FOOD ACCESS COST. Henry Marcucella, Paula Steffen and Anthony Liguori. Boston University, Boston, MA.

Rats were required to lever press in a simulated foraging environment for access to either water and food or water, ethanol and food. The procurement cost of food was manipulated by increasing the number of responses required to produce access to food. The food procuring behavior of the ethanol animals collapsed at much lower food access ratios than that of the animals with only water available. Once the animal shifted to ethanol it would work for food only at low procurement ratios. Below food access ratios of 2500, manipulating the food access ratio had only slight effects on ethanol consumption.

THE EFFECT OF ALCOHOL ON IMPULSIVE AND NON-IMPULSIVE INDIVIDUALS. Carolyn L. Morse and Vincent J. Adesso. The University of Wisconsin-Milwaukee, Milwaukee, WI.

Impulsive and nonimpulsive young, male, heavy drinkers received alcohol or a placebo beverage, and their performance on tests of behavioral impulsivity was measured. On detail-oriented tasks such as the Matching Familiar Figures Test (MFFT) and Projective Drawing, the alcohol/impulsives behave more impulsively than alcohol/nonimpulsives or placebo/impulsives. However, in a time estimation task, the placebo/impulsives underestimated intervals while both alcohol groups responded similarly, overestimating the intervals. The results are consistent with a multifaceted conceptualization of impulsivity, some aspects of which are detrimentally affected by alcohol and others which may be "normalized" by alcohol ingestion.

RESPONSE TO REWARD AND PUNISHMENT AND THE INHERITED RISK FOR ALCOHOLISM. Jordan B. Peterson, Peter Giancola and P. O. Pihl. McGill University, Montreal, Quebec.

Eleven nonalcoholic sons of male alcoholics (SOMAs) from families with extensive male-limited multigenerational family histories of alcoholism and 11 controls matched for age, sex, education level and drinking history were exposed to rest, reward and punishment while sober and while alcohol-intoxicated. Analysis of their cardiovascular and muscular response indicated 1) that the baseline resting heart-rate of the SOMAs was significantly elevated by alcohol consumption and 2) that the SOMAs were characterized by heightened susceptibility to the stress-dampening effects of alcohol on muscular response to punishment. This pattern of response supports the notion that alcohol may be reinforcing to SOMAs because of its interference with the activity in the limbic threat-response system.

ACUTE ETHANOL INTOXICATION, GENDER DIFFERENCES, AND PROSE PROCESSING. Jennifer Haut, Bill E.