

jects were tested using traditional measures of recognition and recall. When testing involved a substantially different kind of task, however, in which list items (e.g., CUPCAKE) were re-presented as fragments to be completed (e.g., _U P_ _K E), no evidence of impairment was found. Since fragment completion was unimpaired long after list presentation, the typical amnesic effects demonstrated for diazepam cannot be explained simply on the basis of poor consolidation into long-term store. Parallels with normal forgetting and the clinical amnesias suggest an alternative account.

TRYPTOPHAN DEFICIENT DIET LOWERS MOOD IN NORMAL MALES. Scott E. Smith, Robert O. Pihl, Simon N. Young and Frank R. Ervin. McGill University, Canada.

Sixty subjects ingested either a tryptophan loaded, tryptophan deficient, phenylalanine-tyrosine loaded phenylalanine-tyrosine deficient, or balanced amino acid mixture. Five hours later the tryptophan deficient group displayed a 76% mean reduction in plasma tryptophan. Unlike the other groups, the tryptophan deficient group also showed a significant elevation on the depression scale of the Multiple Affect Adjective Checklist and impaired performance on a proofreading task when dysphoric themes were used as a distractor. It appears then, that diet induced tryptophan depletion lowers mood as measured by self-report and task performance. This may be interpreted as evidence for the involvement of 5-hydroxytryptamine in depression.

DIETHYLSTILBESTROL AND PSYCHIATRIC DISORDER. M. Fried-Cassorla, H. D. Strassman, M. I. Rothman and E. J. Bowers. Cooper Hospital/University Medical Center, Camden, NJ.

Prenatal exposure to the synthetic estrogen diethylstilbestrol (DES) has repeatedly been found to pathologically influence genital and reproductive development. Psychological studies of DES-exposed individuals have, however, been largely limited to assessing the reactions of individuals informed that they are 'at risk' for, or suffering from DES-related physical conditions. The present research is studying the relationship between DES exposure and emotional and behavioral psychopathology. Using one experimental and two control groups, the researchers are utilizing the NIMH Diagnostic Interview Schedule to uncover current and past psychological functioning. Increased knowledge of the psychiatric vulnerability of people exposed to DES will permit the generation of new hypotheses concerning the roles of the hormones of the hypothalamic-pituitary-gonadal adrenal axes, and their contributions to the physiological bases of psychiatric disturbances.

SIMULATION OF GAMBLING RESPONSES ON THE ADDICTION RESEARCH CENTER INVENTORY. John E. Hickey, Charles A. Haertzen and Jack E. Henningfield. NIDA Addiction Research Center, Baltimore, MD.

The present study investigated possible commonalities between compulsive gambling and abuse of psychoactive

drugs. Eleven volunteers with histories of compulsive gambling were tested using the Addiction Research Center Inventory (ARCI). Subjects were tested twice with the ARCI, once answering items as they felt at the time of the test, the other time as they felt while winning at gambling. The main finding was that as measured on the ARCI, winning at gambling produced a euphoria similar to the euphoria induced by the psychoactive drugs of abuse, particularly psychomotor stimulants.

MENTAL REHEARSAL FACILITATES TOLERANCE DEVELOPMENT TO ETHANOL. E. Rawana, M. Vogel-Sprott, R. Webster. University of Waterloo, Waterloo, Ontario, Canada.

Thirty-six male social drinkers were randomly assigned to three equal groups. They learned a motor-skill task and then drank the same dose of ethanol (0.66 gm/kg) on five sessions. Sessions 1 and 5 provided pre- and posttreatment measure of performance under ethanol. During treatment sessions, one group (P) practiced and another (M) mentally rehearsed the task after ethanol was administered. A control group (C) rested. On the posttreatment session, groups P and M did not differ and both were less impaired (i.e., more tolerant) than C. Since mental rehearsal of this task under ethanol facilitated tolerance, it, may similarly influence other tasks, like driving.

EFFECTS OF DRINKING HISTORY ON DEVELOPMENT OF ALCOHOL-TOLERANCE IN HUMANS. Raymond Niaura and Peter Nathan. Alcohol Behavior Research Lab, Rutgers University, NJ.

This study investigated the hypothesis that prior experience with alcohol would influence the capacity to acquire tolerance more quickly after a period of abstinence. Two groups of heavy (n=2) and light (n=3) male social drinkers underwent voluntary abstinence from alcohol for 2 weeks in order to allow tolerance to dissipate. Tolerance was then induced in both groups during three identical drinking sessions occurring within one week. Tolerance was shown to dissipate only for a measure of nystagmus, while it increased for other cognitive and psychomotor skills despite abstinence. There was no effect of drinking history on the rates of tolerance acquisition. Overall, tolerance developed more quickly for cognitive, as opposed to psychomotor, skills, supporting previous research. The results have implications for the generalization and measurement of tolerance phenomena in humans.

ADMISSION AND REFERRAL PATTERNS AMONG ALCOHOL DETOXIFICATION PATIENTS. Dennis McCarty, Alcohol and Health Research Services, Stoneham, MA and Dave Mulligan, Massachusetts Department of Public Health, Boston, MA.

A systematic sample of 447 patients drawn from the 11,323 detoxification clients in the Massachusetts Alcoholism Management Information System data base was examined to determine admission frequencies, amount of

treatment, and admissions to other alcoholism treatment services. While most (63.1%) were admitted only once between February 1 and August 30, 1983, the 11.5% detoxified five or more times used 40% of the bed days and 44% of the admissions. Apparently, a minority of the patients receive a disproportionate amount of the treatment resources. Moreover, clients with five or more admissions were also least likely to enter treatment following a detoxification.

INDIVIDUAL DIFFERENCES IN DRUG PREFERENCE. H. de Wit, E. H. Uhlenhuth and C. E. Johanson. The University of Chicago, IL.

Subjects who preferred amphetamine or diazepam in an experimental test were compared to subjects who preferred placebo. The drug- and placebo-choosing subjects differed in both their baseline mood scores (as measured by the Profile of Mood States (POMS) and the Addiction Research Center Inventory (ARCI)) and in the drugs' effects on mood. Consistent choosers of both drugs had lower baseline scores on POMS scales of Elation, Arousal and Vigor than non-choosers. Amphetamine increased the amphetamine choosers' scores on positive mood scales, whereas it produced negative mood effects in non-choosers. Diazepam did not produce positive mood effects in either choice group, but produced weaker sedative effects in the diazepam choosers. Individual differences in mood bore a logical relation to choice behavior.

EFFECTS OF D-AMPHETAMINE ON HUMAN AGGRESSIVE BEHAVIOR. D. R. Cherek, J. L. Steinberg and T. H. Kelly. Louisiana State University School of Medicine in Shreveport, LA.

Male research subjects were administered placebo and three doses (5, 10 and 20 mg/70 kg) of d-amphetamine in a laboratory situation which provided both aggressive and non-aggressive response options. Aggressive responding was elicited by subtracting money from the research subjects, which was attributed to a fictitious person. D-amphetamine increased aggressive responding in most subjects, and also increased non-aggressive monetary reinforced responding.

MARIHUANA: EFFECTS OF ACUTE DOSES ON HUMAN SOCIAL CONVERSATION. Stephen Higgins, Maxine L. Stitzer and David K. O'Leary.* The Johns Hopkins University School of Medicine, MD and Baltimore City Hospitals, MD.*

Several drugs commonly used and abused by humans increase social conversation, with ethanol being the most extensively studied. Although marijuana is commonly self-administered by humans, its effects on social conversation have not been so extensively studied. In the present study, the effects of acute doses of smoked marihuana on the rate of social conversation were examined in a dyadic social situa-

tion with subjects who were moderate marihuana users. Marihuana produced either no change or dose-related decreases in the amount of social conversation. These results are consistent with results from previous studies investigating chronic dosing regimens in moderate marihuana users.

TENSION REDUCTION AND SOCIAL INTERACTION: ALCOHOL VERSUS EXPECTANCY EFFECTS. Sandra A. Brown. University of California at San Diego, CA.

Tension reduction aspects of alcohol consumption were examined in the context of social interaction. Thirty-two male social drinkers participated in a two session study with a female confederate. The social and physical context of the experiment was designed to be more consistent with a naturalistic social drinking situation. The 2x2 balanced placebo design study utilized beverage (alcohol or nonalcohol) and instruction (alcohol or nonalcohol) as independent variables and physiological and behavioral measures as dependent variables. Results suggest that alcohol related tension reduction effects are most evident in the nonverbal aspects of interaction whereas alcohol expectancy affects the verbal components of heterosexual communication.

'BOOSTING METH'. ALCOHOL METHADONE INTERACTIONS TO ACHIEVE EUPHORIC EFFECTS. David Strug, Dana E. Hunt, Douglas S. Lipton, Douglas Goldsmith, Kenneth Robertson and Linda Truitt. Narcotic and Drug Research, Inc., New York, NY.

This paper discusses a pattern of alcohol-methadone abuse referred to as "boosting meth" by study subjects. "Boosting meth" or methadone is characteristic of a small, but by no means insignificant, number of methadone clients. "Boosting meth" involves combining methadone and alcohol together (that is, rapidly drinking an alcoholic beverage shortly before or after taking methadone) for the expressed purpose of getting high—a high different than that which can be achieved using either substance alone. Pharmacological evidence (Borowsky and Lieber 1978, Kreek 1981) suggests that boosting methadone with alcohol results in an interaction between ethanol and methadone which initially produces euphoria, but may later produce the beginnings of narcotic withdrawal. This pattern of methadone-alcohol abuse was investigated as part of the Tri-State Ethnographic Project (TRISEP), a study of methadone programs in three states. Research combined two semi-structured interviews with field observation and ethnographic data collection. Eleven percent (N=26) of TRISEP subjects in treatment (N=231) reported combining methadone and alcohol to get high. Data from this research and pharmacological evidence (Kreek 1981) suggest that a disruption of steady-state plasma levels of methadone due to boosting may disrupt the normalization of many physiological functions, and contribute to "the mood swing" reported by some methadone clients. This mood swing has a negative impact on the emotional life of clients who state that combining alcohol and methadone causes them to do "crazy things," such as crashing into cars and breaking into houses.