

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