

MAXIMIZING PREDICTIVE POWER OF ALCOHOL EXPECTANCIES USING MULTIMETHOD ASSESSMENT. Bruce C. Rather, Jack Darkes, Paul Greenbaum and Mark S. Goldman. University of South Florida, Tampa, FL.

Alcohol expectancies have been conceived as a hypothetical memory network which mediates the influence of known antecedents of alcoholism upon consumption levels. To date, studies of the mediational capacity of expectancy have used only single instruments which carry a limited portion of the potential predictive variance of expectancies upon drinking. In the present test of a multimethod approach, the predictive variance was found to be 68%, a figure considerably higher than found in any prior study. This paper will demonstrate one method for undertaking multimethod assessment, as well as a hierarchical model for conceptualizing expectancies based on latent variable and semantic network models.

EFFECTS OF ETHANOL ON COOPERATIVE RESPONDING. Ralph Spiga. University of Texas Medical School, Houston, TX.

The dose effects of ethanol (0.5, 0.75, and 1.0 g/kg) on free-operant cooperative responding was examined in 12 male human volunteers. Subjects participated in five 30-min sessions. Ethanol or placebo were administered after the first. Two schedule components alternated during a session. Points exchangeable for money were presented on a random interval (RI) 60-s schedule during the first component. During the second component a concurrent RI 60-s RI 60-s schedule was in effect for 2 min. Subjects were randomly assigned to a social condition or nonsocial condition group. The first group was instructed that during the second component they could earn points by working with or independently of another person. The cooperatively earned points were added to a counter marked "Other Earnings" and "Your Earnings." Results suggest that cooperative response rate was decreased at all doses and that time allocated to the cooperative alternative was increased at the 1.00 g/kg dose. Implications for separating the rate and preference effects of ethanol are discussed.

BEHAVIORAL EFFECTS OF CAFFEINE AND CGS 15943, A NOVEL ADENOSINE ANTAGONIST. Leonard L. Howell and Larry D. Byrd. Emory University, Atlanta, GA.

The behavioral effects of caffeine and CGS 15943, a novel adenosine antagonist, were compared in squirrel monkeys trained to lever-press under a fixed-interval schedule of reinforcement. Both drugs increased response rates after IM or IV administration, and CGS 15943 was more efficacious and ten times more potent than caffeine. The adenosine agonists, 5'-N-ethylcarboxamidoadenosine (NECA) and N⁶-cyclopentyladenosine (CPA), produced decreases in response rates that were attenuated by caffeine and CGS 15943. The potency difference between caffeine and CGS 15943 as antagonists corresponded to their potency difference for increasing response rates. The results suggest that the behavioral-stimulant effects of caffeine are mediated through adenosine-antagonist actions. (Supported by USPHS grants DA-01161, DA-05346, DA-06264 and RR-00165).

REARING ENVIRONMENT INFLUENCES RATS' SENSITIVITY TO COCAINE AND AMPHETAMINE. Stephen C. Fowler, Julie S. Johnson and Mary J. Kallman. University of Mississippi, University, MS.

Rats with different behavioral histories, defined by rearing in either an enriched condition (EC) or an isolation condition (IC), were trained in an operant drug discrimination procedure to discriminate 5.0 mg/kg cocaine from saline. In cocaine dose generalization tests, the IC rats exhibited an ED50 (1.01 mg/kg) significantly lower than the EC rats (1.55 mg/kg). The cocaine cue generalized to amphetamine, and the ED50 (0.19 mg/kg) was again significantly lower for the IC rats compared to the EC rats (ED50: 0.33 mg/kg). These data suggest that IC rats are more sensitive to indirect dopaminergic agonists than EC rats, and the results highlight the importance of environmental variables in governing an organism's response to the stimulus properties of abused drugs. (Supported by DA05310.)

THE OPIOID-STRESS INTERACTION: EXAMINATION OF THE ROLE OF CONDITIONING. Yavin Shaham. Uniformed Services University of the Health Sciences, Bethesda, MD.

Conditioning factors in the effect of stress on the initiation of morphine self-administration were examined using a procedure modified from Stolerman and Kumar (1970). Four groups of rats were exposed to different temporal relationships between the stress administration and the drug self-administration periods. Stress administrations that were either predictive of or randomly paired with the drug self-administration period resulted in significant increases in drug preference compared with a condition in which stress reliably predicted the absence of the drug or a control condition of no stress. Implications of these findings for mechanisms underlying the stress-opioid interaction and their clinical relevance are discussed.

POSTER SESSION

KNOWLEDGE MAPPING: PSYCHOEDUCATIONAL TOOL IN RELAPSE PREVENTION TRAINING FOR PROBATIONERS. Kevin Knight, D. Dwayne Simpson and Donald F. Dansereau. Texas Christian University, Fort Worth, TX.

This study assessed the effectiveness of implementing an abbreviated version of "Recovery Training and Self-Help" (RTSH; developed by McAuliffe et al., 1990) with a sample of 83 drug-addicted probationers. In addition, the study examined the utility of using "knowledge mapping," an innovative psychoeducational tool, as supplemental instructional material. Results indicated that the abbreviated version of RTSH was able to be successfully implemented, demonstrating a significantly higher participant retention rate in comparison to a cohort sample drawn from the previous year. Also, the study found that probationers who were presented with knowledge maps throughout the program scored significantly higher on knowledge tests administered immediately following each lesson than did those who were not.