SIMILARITIES IN THE RATE-ALTERING EFFECTS OF WHITE NOISE AND COCAINE. Leonard L. Howell, Larry D. Byrd and M. Jackson Marr. Yerkes Regional Primate Research Center, Emory University.

The effects of white noise and cocaine were examined on lever-pressing by squirrel monkeys trained under a fixed-interval 300-sec stimulus-shock termination schedule. Following intramuscular administration of cocaine or continuous presentation of white noise as a novel stimulus, different rates of responding characteristic of control performance converged toward a common rate and, at an appropriately high dose or intensity, response rate became constant. The constant rate was different for cocaine, for white noise, and for the two presented simultaneously. The results suggested that rate-altering drug effects may, in part, result from drugs functioning as novel, extraneous stimuli.

INSTRUCTIONS AND THE REINFORCING EFFICACY OF NICOTINE: A REPLICATION TEST. Suzy B. Gulliver, John R. Hughes and Gerri Amori. Depts. of Psychology and Psychiatry, University of Vermont.

In a previous study, when abstinent smokers had concurrent access to nicotine and placebo gum instructions controlled whether nicotine was a reinforcer; i.e., self-administered more than placebo. The present study is a replication test in which subjects had access to only one type of gum. Seventy-two abstinent smokers were assigned to a 3×2 factorial crossing instructions (told nicotine gum, told placebo gum or not told) and drug (receive nicotine or receive placebo). Preliminary results indicate nicotine is a reinforcer when smokers believe they received nicotine but a punisher when they believe they received placebo. These results are consistent with our earlier findings.

TIFLUADOM-INDUCED ANALGESIA IN SQUIRREL MONKEYS. Raymond F. Genovese. Dept. of Pharmacology and Toxicology, Medical College of Virginia; and Linda A. Dykstra. University of North Carolina, Chapel Hill.

The analgesic efficacy of the kappa-opioid benzodiazepine, tifluadom, was examined in squirrel monkeys using a combined electric shock titration and tail-immersion procedure. Tifluadom produced dose-dependent increases in the shock intensity that maintained responding under the shock titration schedule without substantially decreasing response rates. Tifluadom also increased the latency of tail-withdrawal from 55°C water. Naloxone attenuated tifluadom's effects under both procedures. These results extend previous reports of tifluadom's analgesic characteristics and suggest that the tail-immersion procedure is a useful analgesic assay in squirrel monkeys.

BIOCHEMICAL EFFECTS OF NICOTINE: RELEVANCE TO NICOTINE/BODY WEIGHT RELATIONSHIP. Neil E. Grunberg, Kathryn A. Popp. Uniformed Services University of the Health Sciences; Deborah J. Bowen. Texas Tech University; Stephanie M. Nespor, Suzan E. Winders and Sharon Eury. Uniformed Services University of the Health Sciences.

The inverse relationship between nicotine and body weight results from changes in consumption of sweet foods and energy utilization. Changes in sweet food consumption may result from changes in glucose availability. Changes in energy utilization may result from nicotine's effects on catecholamines. The present study examined effects of norepinephrine, and epinephrine in 144 rats. Nicotine administration was accompanied by slight increases in glucose, significant decreases in insulin, and increased levels of norepinephrine and epinephrine. These results are discussed in terms of their potential role in the nicotine/body weight relationship.

AMPHETAMINE AND HALOPERIDOL COMPARED IN AN ANIMAL MODEL OF HYPERACTIVITY. Gordon K. Hodge, Elizabeth A. Reyes, Mary R. Wood, Shane Cleveland and Christopher C. Saiz. University of New Mexico.

The DSM-III (1980) currently designates impulsivity, age inappropriate inattention and hyperactivity as the primary symptoms of Attention Deficit Disorder with Hyperactivity (ADDH). Behavioral effects of d-amphetamine and haloperidol following neonatal administration of 6-hydroxydopamine (6-OHDA) were assessed in an animal model of ADDH. To assess the effects of 6-OHDA, rat pups were trained on a modified differential reinforcement for low-rate responding (DRL) schedule and light discrimination task. In terms of errors, 6-OHDA treated animals were significantly more impulsive than controls. Amphetamine treatment attenuated impulsivity, whereas haloperidol made 6-OHDA animals more impulsive, implicating dopamine involvement in ADDH.

ALCOHOL AND HUMAN AGGRESSIVE BEHAVIOR: THE EFFECTS OF PROVOCATION. Thomas H. Kelly. Veterans Administration Medical Center, Shreveport, LA; Don R. Cherek. Dept. of Psychiatry, Louisiana State University Medical Center; and Joel L. Steinberg. Veterans Administration Medical Center, Shreveport, LA.

Effects of quantitative dimensions of provoking stimuli were measured on the relationship between alcohol and human aggressive behavior, defined as the delivery of an aversive stimulus to another person. Four adult males manipulated pushbuttons that produced points (redeemable for money) or ostensibly subtracted points (money) from fictitious persons described as participating in the same study at other locations. During five ten-minute components, frequency and intensity of point subtractions, ostensibly controlled by other persons, were manipulated. Alcohol (0.25, 0.5 and 0.75 g/kg of 95% ethanol) selectively increased highly probable aggressive responding and had little effect on or decreased point-maintained responding.

MAINTENANCE EFFECTS OF CONTINGENCY CONTRACTING WITH METHADONE MAINTENANCE CLIENTS. John L. Black and Michael P. Dolan. Dallas Veterans Administration Medical Center, Dallas, TX.

Maintenance effects of contingency contracting were monitored among 20 methadone maintenance clients. The contracting procedure required the participants to cease their illicit drug use for a 30-day period in order to remain in