

PAPER SESSION I*Behavioral Pharmacology: Laboratory Studies.*

Chair: *Linda A. Parker*, Wilfrid Laurier University, Waterloo, Ontario, Canada

THC-INDUCED CONDITIONED PLACE AVERSIONS IN SPRAGUE-DAWLEY AND LEWIS RATS. Linda A. Parker and Todd Gilles. Wilfrid Laurier University, Waterloo, Ontario.

Delta-9-tetrahydrocannabinol (THC) has been reported to be relatively ineffective in promoting drug self-administration, but has been demonstrated to reduce the threshold for brain stimulation reward in Lewis strain rats. The following experiment assessed the ability of THC (.2, .4, .75, 1.5 mg/kg, ip) to produce place conditioning. The results revealed that THC produced an aversion to a place with which it was paired on 3 occasions in both strains, although the Lewis strain appeared to be more sensitive to the aversive properties of THC than the Sprague-Dawley strain.

THE ATYPICAL ANTIPSYCHOTIC CLOZAPINE SLOWS LICK RHYTHM MORE THAN HALOPERIDOL. Stephen C. Fowler and Shyamal Das. University of Mississippi, University, MS.

Low doses of clozapine and haloperidol, antipsychotics with low and high extrapyramidal side effect liabilities, respectively, were compared in rats trained to lick water from a force-sensing disk. Number of licks, peak force of individual tongue contacts, and force-time waveforms were recorded. The latter were subjected to Fourier analysis as a means of quantifying the rhythm of licking. Both clozapine and haloperidol dose-dependently reduced number of licks and peak force of tongue protrusions, but only clozapine substantially slowed the rhythm of the tongue oscillations. These differences in effects on tongue dynamics were discussed in relation to clozapine's effects on a broad spectrum of neurotransmitter systems with special emphasis on the neurotransmitters that influence the hypoglossal nucleus. Supported by MH43429.

NALOXONE AND OPERANT RESPONDING FOR FOOD: EFFECTS OF DEPRIVATION LEVEL. Jeffrey M. Rudski,* Charles J. Billington,† and Allen S. Levine.* *University of Minnesota, Minneapolis, MN, †VAMC, Minneapolis, MN.

Naloxone does not decrease operant responding in chronically deprived rats. We examined the effect of naloxone (0, 0.1, 0.3, 1.0, 3.0, 10.0 mg/kg) on FR 80 (1st) - FR 3 (subsequent pellets) or PR 2 responding in chronically deprived (90%), restricted access (22 g) and free feeding rats. Naloxone decreased responding under both operant schedules more effectively and at lower doses when rats were less deprived (free-access > restricted access > chronic deprivation). Thus, naloxone's effect on operant responding is dependent upon deprivation state.

COGNITIVE EFFICIENCY AND CONTROL UNDER THE INFLUENCE OF ALCOHOL. William M. Lapp, R. Lorraine Collins, and William H. Zywiak. Research Institute on Addictions, Buffalo, NY.

The theory of alcohol myopia assumes that both the efficiency and control of cognitive processing decrease as a function of the pharmacological dose of alcohol, and are not affected by the expected dose. Unfortunately, this claim has been difficult to test due to procedural and data analytic limitations of the original Balanced Placebo Design (BPD). In the present study, an extended version of the BPD was used to study the expected and pharmacological effects of alcohol within the range thought to be relevant for testing the theory of alcohol myopia. Support for the theory of alcohol myopia was observed with respect to both the efficiency and control of cognitive processing. Some support was also observed for Expectancy theory, but it was limited to the efficiency of cognitive processing. The results suggest that the theory of alcohol myopia rests on two very sound theoretical assumptions about how alcohol affects cognitive processing, but could be improved by incorporating aspects of Expectancy theory.

NEW INSTRUMENTS TO ASSESS HUMAN DRUG CRAVING. Edward G. Singleton,* Stephen T. Tiffany,† Jack E. Henningfield,* Charles A. Haertzen,* Laurie Fields.* *NIH NIDA Addiction Research Center, Baltimore, MD, †Purdue University, West Lafayette, IN.

No consensus has been reached regarding the meaning of *drug craving*. Significant discoveries have been hampered by not having a reliable instrument that has been scientifically evaluated to use in the measurement and operational definition of this concept. New instruments were developed to assess craving for cocaine, heroin, and alcohol. Results indicate that drug craving is multidimensional. For each of the three drug types it consisted of an amalgam of five theoretical dimensions of drug use: 1) irresistible urges and desires, 2) intent to use, 3) relief from negative outcome, 4) anticipation of positive outcomes, and 5) lack of control over use. The patterns found here would not have been identified by traditional craving measures. Researchers may begin to address the complex issues that have limited our understanding of what constitutes craving and how it operates, as well as what physiological and psychological mechanisms account for its existence.

PAPER SESSION II*Human Behavioral Pharmacology: Clinical Issues.*

Chair: *Timothy A. Roehrs*, Henry Ford Hospital Sleep Disorders and Research Center, Detroit, MI.

TYPE I AND TYPE II ALCOHOLISM IN A TREATMENT SAMPLE. Kevin L. Elliott,* William T. Bailey,† and William G. Kirk.† *University of Illinois, Urbana, IL, †Eastern Illinois University, Charleston, IL.

A promising approach to the identification of distinct alcoholic types is the Type I/Type II model of alcoholism (Cloninger, Sigvardsson, von Knorring & Bohman, 1988). The present study examined Type I and Type II characteristics in a treatment population. Subjects ($n = 108$) were differentiated by sex and categorized into types by age of onset. Significant differences were found between sexes and between types on the basis of social consequences and family history. The typology was supported to some degree; but, unexpectedly, there was evidence of Type II alcoholism in females. It is possible that the treatment sample represented a population that has been inadequately studied in the past.