DISTINGUISHING BETWEEN D1 AND D2 ANTAGONISTS' BEHAVIORAL EFFECTS. Stephen C. Fowler, J. Michael Chase, Ruey M. Liao, Paul D. Skjoldager, Susanne A. Beatty, Julie S. Johnson, Laura R. Johnson and Michael R. Durnam. University of Mississippi, University, MS.

The effects of dose ranges of haloperidol and raclopride (both are D2 dopamine receptor blockers), SCH23390 (a D1 antagonist), and clozapine (an atypical neuroleptic) on rats' operant response rate, duration, and force were examined under two different response topographies and two different levels of required force. Appropriate quantitative methods permitted the comparison of drug effects on force and duration at doses of each drug that produced equivalent rate reductions. The D2 blockers were characterized by dose-related elevated force and lengthened duration, while SCH23390 affected neither of these measures. (Supported by MH43429.)

EVIDENCE FOR AND AGAINST CONSIDERING CAFFEINE A DRUG OF DEPENDENCE. John R. Hughes, Alison H. Oliveto, Stephen T. Higgins and Warren K. Bickel. University of Vermont, Burlington, VT.

There is strong human experimental evidence that caffeine is psychoactive, can serve as a reinforcer and can produce withdrawal effects. The evidence for tolerance is less robust. There is no, or poor, clinical evidence that coffee users have difficulty stopping caffeine use, have craving upon cessation, lose control over caffeine use or develop physical or psychological problems from caffeine use. The results of well-designed clinical studies are needed before a decision on whether, in some individuals, caffeine use can be considered a form of drug dependence.

PREDICTIVE POWER OF THE COCAINE EXPECTANCY QUESTIONNAIRE. Adam J. Jaffe. Yale University, New Haven, CT; M. Marlyne Kilbey. Wayne State University, Detroit, MI; Gerald Rosenbaum. University of California at San Diego, San Diego, CA.

The current study explored the ability of the Cocaine Expectancy Questionnaire (CEQ) to predictively discriminate cocaine abusers from nonusers. The CEQ subscales demonstrated highly significant discriminative power. The linear discriminant function predicted abusers vs. nonusers with 87–89.5% accuracy. The expectancy scales that demonstrated significant predictive power include physiological sensations, grandiosity, physical functioning, relaxation, antisocial and aggressive behavior and sexual functioning. In addition, abusers and nonusers had significantly different mean scores on eight of the eleven CEQ subscales. Etiological implications are discussed.

PAPER SESSION
Effects of Methylphenidate on Attention Deficit Disorder
Chair: *Mark D. Rapport*, State University of New York Medical School at Stony Brook, Stony Brook, NY

ATTENTION DEFICIT DISORDER: METHYLPHENIDATE DOSE-REPONSE EFFECTS ON CLASSROOM BEHAVIOR. Mark C. Rapport. SUNY Stony Brook, Stony Brook, NY.

This multi-year investigation was designed to examine the effects of methylphenidate (MPH) at four doses (5, 10, 15, 20 mg) on the attention, academic efficiency, and teacher-rated behavior of 84 children with Attention Deficit Disorder/Hyperactivity (using direct observations), and to compare these effects to functioning under baseline and placebo conditions. MPH significantly improved all areas of classroom functioning in a linear, dose-dependent fashion. Intermediate and individual level analyses, however, indicate a wide range of optimal responses across subjects. Implications for the construction of individual dose-reponse potency profiles and the ability to predict behavioral response are discussed.

ATTENTION DEFICIT DISORDER: DOES METHYLPHENIDATE NORMALIZE CLASSROOM FUNCTIONING? George DuPaul. University of Massachusetts Medical School, Worchester, MA.

This study was designed to investigate whether methylphenidate (MPH) normalizes the classroom behavior and academic performance of children with Attention Deficit Disorder (ADD). MPH was found to significantly reduce the intrasubject variability in task-related attention of 30 children with ADD. Further, teacher ratings of ADD behavior and children's attention to academic tasks were improved to the extent that these measures were no different from those obtained by a Normal Control group of 25 children. Alternatively, the academic performance of ADD students was improved, but not to the point of normalization, thus implicating the need for adjunctive interventions.

METHYLPHENIDATE: EMERGENT SYMPTOM PROFILE OF DOSE-REPONSE EFFECTS IN ADDH CHILDREN. Kevin Kelly and Mark Rapport. SUNY Medical School at Stony Brook, NY.

This study was designed to assess treatment emergent symptoms in children with Attention Deficit Disorder/Hyperactivity treated with methylphenidate (MPH). Sixty children participated in a double-blind, placebo control, within-subject design in which each subject received four doses of MPH (5, 10, 15, 20 mg) and a placebo in a counter-balanced order (following baseline) and was rated by their parent on three emergent symptom scales. Scale items were reduced to factor scores and subjected to both group and individual analyses. Results indicated significant *reductions* in severity ratings from baseline to placebo, as well as to most active medication conditions.

PAPER SESSION
The Psychopharmacology of Alcohol
Chair: *Stephen Fowler*, University of Mississippi, University, MS

ANALYSIS OF AMNESIA FOLLOWING ALCOHOL WITHDRAWAL. J. R. Gerrein. Choate Symmes Hospitals, Woburn, MA.

The study examined the memory changes that occur in alcoholic patients during the first 13 days following hospital admission requiring alcohol detoxification. In an independent groups design of 50 patients, 9- and 3-day groups performed significantly better than the 5-day group on several Wechsler Memory Quotient Measures, with older subjects recovering most slowly. The number of years since first detoxification was related to increased Visual Reproduction impairment and to a retrieval deficit in short-term verbal memory, while depression score was related to storage deficits. Practical and theoretical implications are discussed.