a clinic setting Twenty-two children with ADDH between 6 and 10 years of age participated in a double-blind, placebo-control within-subject (crossover) design in which each child received four doses of MPH (5, 10, 15, 20 mg) and a placebo in a randomly assigned, counterbalanced sequence A series of one-way ANOVA's with repeated measures showed significant overall medication effects on MFFT performance, teacher ratings of self-control, attentive behavior, and academic efficiency Trend analyses revealed a significant linear relationship between improvement in the clinic and classroom measures and increasing dose

THE EFFECTS OF METHYLPHENIDATE ON LEARNING IN CHILDREN WITH ADDH Stuart A Vyse Connecticut College, Mark D Rapport State University of New York at Stony Brook

The present study evaluated the utility of a clinic-based learning measure (the stimulus equivalence paradigm) and classroom observations in detecting dose-related behavioral changes in children with Attention Deficit Disorder with Hyperactivity (ADDH) Twenty-six ADDH children participated in a double-blind, placebo-control, within-subject (crossover) design in which each child received four doses of MPH in a randomly assigned sequence A series of one-way analyses of covariance found significant medication effects on several classroom and clinic-based measures In addition, the stimulus equivalence paradigm revealed dose-related improvements in both specifically instructed material and incidental learning

ATTENTION DEFICIT DISORDER AND METHYLPHENIDATE RATE-DEPENDENT EFFECTS ON OPERANT BEHAVIOR George J DuPaul University of Rhode Island, and Mark Rapport Department of Psychiatry & Behavioral Science, State University of New York at Stony Brook

The two most common treatments for Attention Deficit Disorder with Hyperactivity (ADDH) are psychostimulant medication and behavior therapy The present study examined the effects of several doses (i e , 5 mg, 10 mg, 15 mg and 20 mg) of methylphenidate on the operant key-pressing behavior of 20 ADDH children Each child was randomly assigned to one of two groups wherein equivalent instructions but different multiple conjunctive schedules were employed Methylphenidate effects on behavior maintained by complex reinforcement schedules were dependent upon the reinforcement schedule employed (i e , the response rate it controls under control conditions) These results have implications for the nature of rate-dependent phenomena in humans and the treatment of ADDH children

DISTINGUISHED FOREIGN AFFILIATE

Friday August 28, 1987 • 3 00 p m –3 50 p m
Marriott Marquis Hotel • Boothe/Edison Room
Chair *Hugh L Evans,* Institute of Environmental Medicine, New York University Medical Center

BENZODIAZEPINE-INDUCED INGESTION PHARMACOLOGICAL AND BEHAVIORAL ATTRIBUTES Steven J Cooper Department of Psychology, University of Birmingham, Birmingham, B15 2TT, United Kingdom

Classical benzodiazepines (BZs) have been succeeded by a variety of partial agonists which act at central BZ receptors, which retain anxiolytic activity but which lack behaviorally-depressant side effects While the original full agonists are consistent in their enhancement of food consumption, the newer partial agonists differ Thus, BZs like Ro17-1812 have a strong hyperphagic effect, the β-carboline ZK 91296 appears to have a weaker effect, and the pyrazoloquinoline CGS 9896 is without effect Behaviorally, BZs enhance consumption of palatable diets, and we have some evidence that BZs increase sham feeding in the gastric-fistulated rat These data may link with recent reports that BZ treatment increases positive responses in a taste reactivity paradigm

YOUNG PSYCHOPHARMACOLOGIST AWARD, NEW FELLOW ADDRESS

Friday August 28, 1987 • 4 00 p m –4 50 p m
Marriott Marquis Hotel • Boothe/Edison Room
Chair *Donald Overton,* Departments of Psychology and Psychiatry, Temple University

BEHAVIORAL PHARMACOLOGY OF THE ATYPICAL ANXIOLYTIC BUSPIRONE John H Kehne Department of Psychiatry, Yale University School of Medicine, 34 Park St , New Haven, CT 06508

There is much interest in the mechanism of action of non-benzodiazepine anxiolytics that are devoid of muscle relaxant and sedative side effects In the present study, systemically-administered buspirone showed potent anxiolytic activity using the fear-potentiated startle paradigm Anxiolytic action was also found following direct infusion of buspirone into the lateral ventricular system Gepirone, an analog with a pharmacological profile different from buspirone with respect to dopamine, also demonstrated anxiolytic action in this model, whereas the common metabolite 1-pyrimidinyl-piperazine (1-PP) was without effect Buspirone's blockade of fear-enhanced startle was not