

sules This was followed by a 6 week single-blind clinical trial of carbamazepine and after this period, subjects returned to a 7 day placebo washout The results of the study revealed that carbamazepine may be an important antipsychotic agent in the treatment of refractory schizophrenia

SITUATIONAL, TEMPORAL AND SUBJECTIVE CONTROL OF SMOKELESS TOBACCO USE Dorothy K Hatsukami, Robert M Keenan and Deborah J Anton University of Minnesota, Minneapolis

The present study is concerned with determining if situational, temporal and subjective factors are associated with smokeless tobacco use In this sample, approximately 72 percent of the chews were associated with feelings of relaxation, boredom, tiredness and/or happiness, whereas 66 percent of the onset of chewing behavior occurred in the situations of after a meal, socializing, driving and/or watching TV or relaxing The temporal pattern of smokeless use showed a positively-accelerating rate of use associated with the morning hours, a constant high-rate of use associated with the afternoon and evening followed by a sharp decline in use at around bedtime These data support the notion that there appear to be situational, subjective and temporal factors associated with the use of smokeless tobacco

THE SELECTIVE EFFECTS OF ALCOHOL ON COGNITIVE PROCESSES Jill Fischer Cleveland Clinic Foundation, Timothy B Baker and Arthur M Glenberg University of Wisconsin-Madison

We report on two experiments designed to identify the locus of alcohol's effects on information processing stages, using the Sternberg (1969a,b) short-term memory search task and its long-term memory search modification (Atkinson and Juola, 1974) Free recall and coding tasks were included for comparative purposes in Experiment 1, Daneman and Carpenter's (1980) word/reading span task was included in Experiment 2 to examine alcohol's effects on "working memory" We replicated previous reports of alcohol-induced disruption in long-term free recall and coding but found that alcohol did not affect short-term or long-term memory search or "working memory"

PIRACETAM EFFECTS ON READING ACHIEVEMENT AND EVOKED POTENTIALS IN DYSLEXICS C Keith Connors Behavioral Medicine, Childrens Hospital National Medical Center, DC, Mark Reade Johns Hopkins University School of Medicine, Colin Wilsher British Siclac Ltd, Watford, England

Piracetam, a nootropic which is structurally similar to gamma-aminobutyric acid, has been shown to enhance learning, particularly for linguistically-based tasks In the present poster, two studies which evaluated the efficacy of piracetam on reading achievement and/or visual event related potentials will be presented In the first study, 225 dyslexic children were randomly assigned to the medication or placebo group for a 36 week trial period Monthly physical exams and achievement testing was conducted Results indicated that piracetam led to significantly greater academic gains as measured on several standardized tests of reading

achievements Evoked potentials conducted on 29 children at one site indicated that piracetam improved cognitive performance on a task of attention/short-term memory and that differences in ERPs were noted, particularly in the left hemisphere for later components In the second study, children received 1 of 4 dosages of piracetam or placebo over 5 days of testing On each day, a baseline ERP session and 3 additional sessions were conducted A principal components analysis will be conducted to evaluate the impact of piracetam on the ERP data

PHARMACOLOGIC MANIPULATION OF VISUAL VIGILANCE IN THE NON-HUMAN PRIMATE EXTRAPOLATION TO MAN J Dean Taylor Institute of Environmental Medicine, New York University Medical Center (Sponsor Hugh L Evans)

A forced-choice visual discrimination task was developed and tested in both human and non-human primates Dependent measures were directly comparable between the two species and included sensory discriminability (A'), bias (B''), response time, response probability, and hit rate as a function of interfering stimuli Monkeys were treated with scopolamine, physostigmine, aniracetam, and scopolamine plus aniracetam Scopolamine injections degraded performance, while physostigmine and aniracetam enhanced some measures of performance Aniracetam offset the decrement induced by scopolamine This model is capable of assessing chemically-induced alterations in higher cognitive function, the results from which can be directly extrapolated to man

MOTOR EFFECTS OF PIMOZIDE ON DISCRIMINATED LEVER RELEASE IN RATS Stephen C Fowler and Paul Skjoldager The University of Mississippi, University, MS 38677

This experiment examined the effects of pimozide (0.125, 0.25, and 0.5 mg/kg) on a discriminated lever release task which required the rat to wait with the lever depressed through one of five randomly selected foreperiods (2-6 sec in duration), and release the lever within 0.5 sec of a signalled payoff band to receive food or water reinforcement Results indicate that pimozide produced a dose-dependent increase in the proportions of both anticipatory (premature lever release) and extended (lever release after payoff band) responses The increased proportions of extended responses were hypothesized to parallel the motor disruption observed in the discriminated active avoidance paradigm, while increases in proportions of anticipatory responses were thought to be analogous to akathisia

THE EFFECTS OF CHRONIC DIAZEPAM ON REPEATED ACQUISITION IN HUMANS Warren K Bickel Albert Einstein College of Medicine, Stephen T Higgins University of Vermont College of Medicine, Roland R Griffiths Johns Hopkins University College of Medicine

The present study examined the effects of chronic-high doses of diazepam on the acquisition and performance of response chains in humans Diazepam (80 mg) was administered on three consecutive days The effects of diazepam on the acquisition and performance of behavioral chains was