ETHANOL CONSUMPTION AS A FUNCTION OF ETHANOL PROCUREMENT COST. Anthony Liguori, Paula Steffen and Henry Marcucella. Boston University, Boston, MA.

In a simulated foraging environment, seven rats lever-pressed to obtain access to food, water, and ethanol. As the response requirement for ethanol access was increased from fixed ratio 1 to fixed ratio 175, six of the animals continued to respond for ethanol. Rats with high food access costs were less likely to reduce ethanol consumption than were rats with low food access costs. The results suggest that 1) ethanol served as a partial substitute for food when food access cost was high, and 2) animals without food access constraints will respond at high rates for ethanol access.

AN ALCOHOL COMPENSATION EFFECT PRODUCED BY EXPECTATIONS AND NOT ALCOHOL. W. M. Lapp, R. L. Collins and C. V. Izzo. New York State Research Institute on Alcoholism, Buffalo, NY.

An alcohol compensation effect (ACE) was observed using the balanced placebo design that depended upon the subject's expectation that they had consumed alcohol and not by alcohol itself. The effect was observed using a multidimensional categorization task that factorially combined three separable stimulus dimensions and was diagnostic with respect to both selective and divided attention. Results showed that the ACE varied as a function of task complexity such that harder tasks produced a larger ACE and were therefore consistent with a general resource allocation model of attention that is equipped with a pool of resources of variable size.

TOWARD A MEDIATIONAL MODEL OF ALCOHOL EXPECTANCY. Gregory T. Smith. University of Kentucky, Lexington, KY; Mark S. Goldman. University of South Florida, Tampa, FL.

Recent developments in alcohol expectancy theory suggest that expectancies can be understood as mediators of the influence of prior alcohol-related learning on drinking behavior. This study tested such a model on a large sample of adolescents (n = 608 16- to 18-year-olds). As hypothesized, it was found that (a) an index of family drinking behavior, the expectancy for social enhancement from alcohol, and adolescent drinking were all related; (b) the expectancy partially mediated the influence of family drinking; and (c) the expectancy accounted for 10 times the adolescent drinking variance than did family drinking, and so likely mediates the influences of other important independent variables as well. Experimental studies are necessary to complement correlation-based models such as this one. (Supported by NIAAA.)

GROUP POSTER SESSION
Chair: *Stephen T. Higgins*, University of Vermont, Burlington, VT

EFFECTS OF ACRYLAMIDE ON NEUROBEHAVIORAL FUNCTIONING IN THE PIGEON. Stephen A. Daniel. Mercy College, Dobbs Ferry, NY; Hassan A. N. El-Fawal, Frederick R. Moon and Hugh L. Evans. New York University Medical Center, New York, NY.

Acrylamide, an industrial chemical with well-described neuropathic effects, is an important reference neurotoxicant. The dose- and time-effects of subchronic acrylamide on feeding behavior and motor function in pigeons were tested. All doses of acrylamide resulted in effects on either posture (20, 30 or 60 mg/kg/day) or stride length (45 mg/kg/day). Effects on accuracy of feeding behavior were noted at 30, 45 and 60 mg/kg/day. Behavioral tests of motor function and feeding behavior both revealed early effects of acrylamide, which is of interest to scientists who require non-invasive tests for neurobehavioral functioning.

MEDIATION OF MORPHINE WITHDRAWAL AGGRESSION BY DOPAMINERGIC AGENTS. J. W. Tidey and Klaus A. Miczek. Tufts University, Medford, MA.

Altered motor and enhanced aggressive behavior during opiate withdrawal may be due to disruptions of dopamine activity. Male CFW mice were administered d-amphetamine, SKF38393 (D1 agonist), quinpirole (D2 agonist), or a combination at different times after morphine pellet removal. Rearing and walking were greatly reduced and grooming was increased 5 hr into withdrawal; these effects returned to control levels by 48 hr. Morphine withdrawal provoked heightened attack and threat behavior toward a male conspecific, persisting at least 96 hr. In withdrawn mice d-amphetamine maintained the enhanced aggression; more selective D1/D2 agonists partially mimicked the effects of d-amphetamine on aggressive but not motor behaviors.

DISCRIMINATIVE STIMULUS PROFILE OF BUPRENORPHINE IN MORPHINE-DEPENDENT PIGEONS. Eve M. Versage, Philip J. Goushaw and Alice M. Young. Wayne State University, Detroit, MI.

Experiments compared the generalization patterns of the mu opioid partial agonist buprenorphine in morphine-dependent and withdrawn pigeons. Pigeons (N = 5) were trained to discriminate among IM injections of 17.8 mg/kg morphine, saline, and 0.056 mg/kg naltrexone. Performance was maintained under FR 30 schedules of food delivery six hours after daily treatment with 10 mg/kg morpine. In four subjects, withholding the morning morphine injection evoked complete naltrexone-appropriate responding. Buprenorphine (1.0–32 mg/kg) evoked only saline-appropriate responding in both dependent and withdrawn birds, followed by a prolonged antagonism of the morphine training dose. Thus, buprenorphine displayed limited agonist efficacy in morphine-dependent birds. (Supported by USPHS grants DA-03796 and K02-DA00132.)

CLONIDINE, DIAZEPAM AND TELEMETERED AUTONOMIC RESPONSES TO SOCIAL STRESS. W. Tornatzky and Klaus A. Miczek. Tufts University, Medford, MA.

Animals confronted with an aggressing opponent react with defensive, submissive behavior and increased cardiovascular activity. The heart rate and core temperature of the experimental rats were monitored by telemetry while being exposed for 1 hr to the threats of an opponent. The tachycardia and hyperthermia were dose-dependently attenuated by clonidine. Diazepam, in contrast, did not affect the tachycardic but delayed the hyperthermic reaction during the interaction. With either diazepam or clonidine the high levels of defensive behavior were maintained even at muscle relaxant doses. The massive autonomic reactions during social conflict appear to be differentially affected by adrenergic- and GABA-A-receptor agonists.

ULTRASOUNDS AS A MEASURE OF DISTRESS DURING MORPHINE WITHDRAWAL. J. A. Vivian and Klaus A.