Apr 21st, 2:00 PM - 3:00 PM

Behavioral Contrast in Rats at Low Levels of Reinforcement

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Poster Presentation 9

OLFACTORY INFLUENCE ON CHOICE AND FORAGING BEHAVIOR

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Previous studies in our lab have investigated the effects of a biologically significant olfactory stimulus (fox urine) on free-operant barpressing in rats. Both fox urine and a floral scent resulted in an increased latency to first response, although habituation occurred rapidly and the effect was gone by the fourth session of exposure. The present experiments use a more sensitive measure of behavior: choice on concurrent schedules. Rats were exposed to a series of concurrent VI schedules in the presence of fox urine and several control scents. The data are examined using a regression analysis of the generalized matching law (Baum, 1974). Of particular interest are changes in the sensitivity (undermatching) parameter, which should take on a value greater than 1.00 in the presence of a predator scent. The results have implication for both the matching law and for biologically-based learning theories.