THE WITHIN-SESSION EFFECTS OF FOOD DENSITY ON THE BITONIC FUNCTION

Bryan Reeves, Emily Cointin, and Dr. James Dougan*
Dept. of Psychology, IWU

Within-session patterns of responding have typically been ignored for research in which response rates are the dependant variable. Recently, however, such within-session changes have been found to be significant (McSweeney, 1992). Two experiments examined the effects of food density on within-session responding. The subjects were six Long-Evans Hooded rats. In the first experiment, a one hour baseline phase with a multiple VI 30-30 reinforcement schedule was conducted in a standard operant conditioning chamber. In the experimental phase, rats were given pre-session feedings in an amount equal to food received in cumulative ten minute blocks of the baseline phase. Six such pre-feeding conditions were administered, and subjects were tested for ten minutes immediately after the consumption of the pre-feed. The within-session effects of food density were directly comparable to baseline rates. The second experiment, in progress, will administer the pre-feed conditions inside the chamber with the bars retracted, and the remainder of the session subjects will be allowed to respond. This will examine the effects of food density on the response function as reinforcement is received at the same rate of the baseline phase while the opportunity for response is absent during the pre-session feeding. Together, the studies suggest that food density has a significant effect on the response function within the session.