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Poster Presentation P3

**DEMAND ELASTICITY AND COMMODITY SUBSTITUTABILITY IN
SIMULATED ECONOMY**

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Hursh (1980) suggested that behavioral experiments with animals mirror many of the conditions found in an economy. In a Skinner box, rats supply their labor (bar pressing) in exchange for a commodity (food). Subsequently, numerous authors have found that animal behavior is well described by economic laws. The present project examined demand elasticity and commodity substitution. Twelve rats were exposed to a series of Fixed Ratio (FR) schedules in which the number of responses required for reinforcement increased each day. In some conditions, the rats were given free food immediately prior to the session. Demand elasticity was calculated by plotting the log food consumption (pellets per session) as a function of the log price (responses required per pellet). As predicted by economic theory, the availability of free food (a substitutable commodity) increased the demand elasticity of food consumption.