

PROBABILISTIC CHOICE IN RATS



Probability discounting in animals

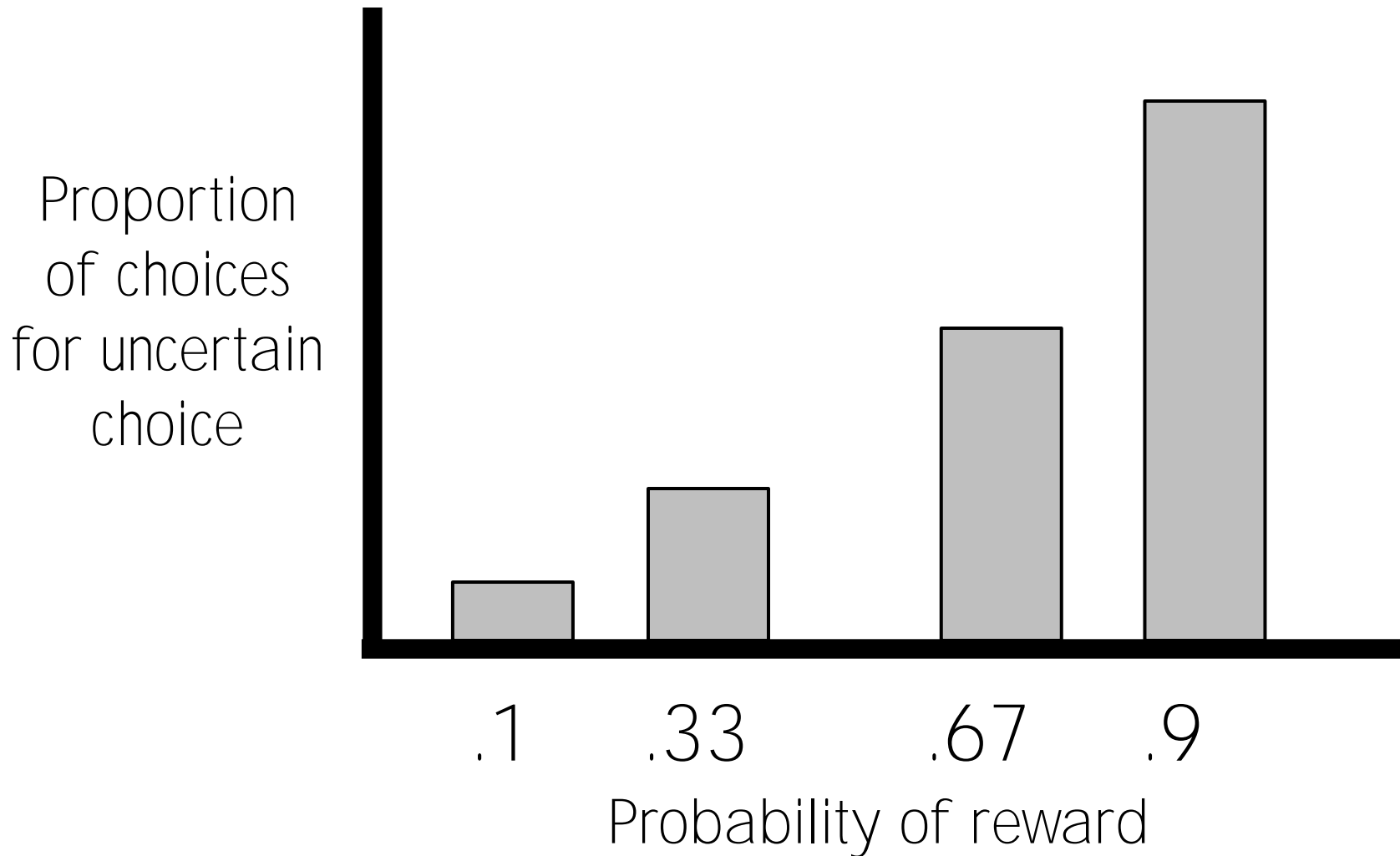
5 food pellets,
 $p(\text{food}) = 1$

15 food pellets,
 $p(\text{food}) = .10$



Probability discounting in animals

Analyzing probabilistic choice data

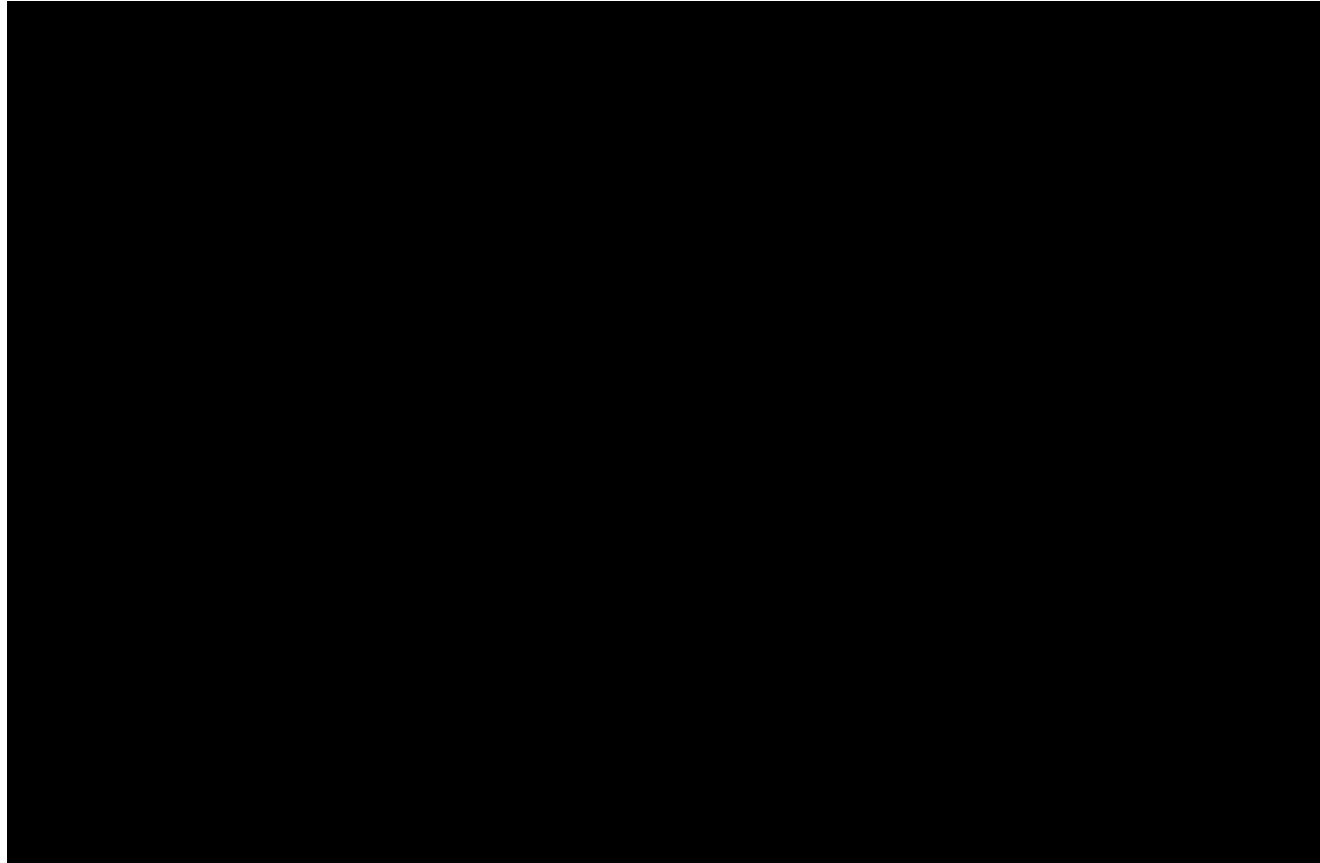


Analyzing probabilistic choice data



50 100 150 200
Trial

Analyzing probabilistic choice data

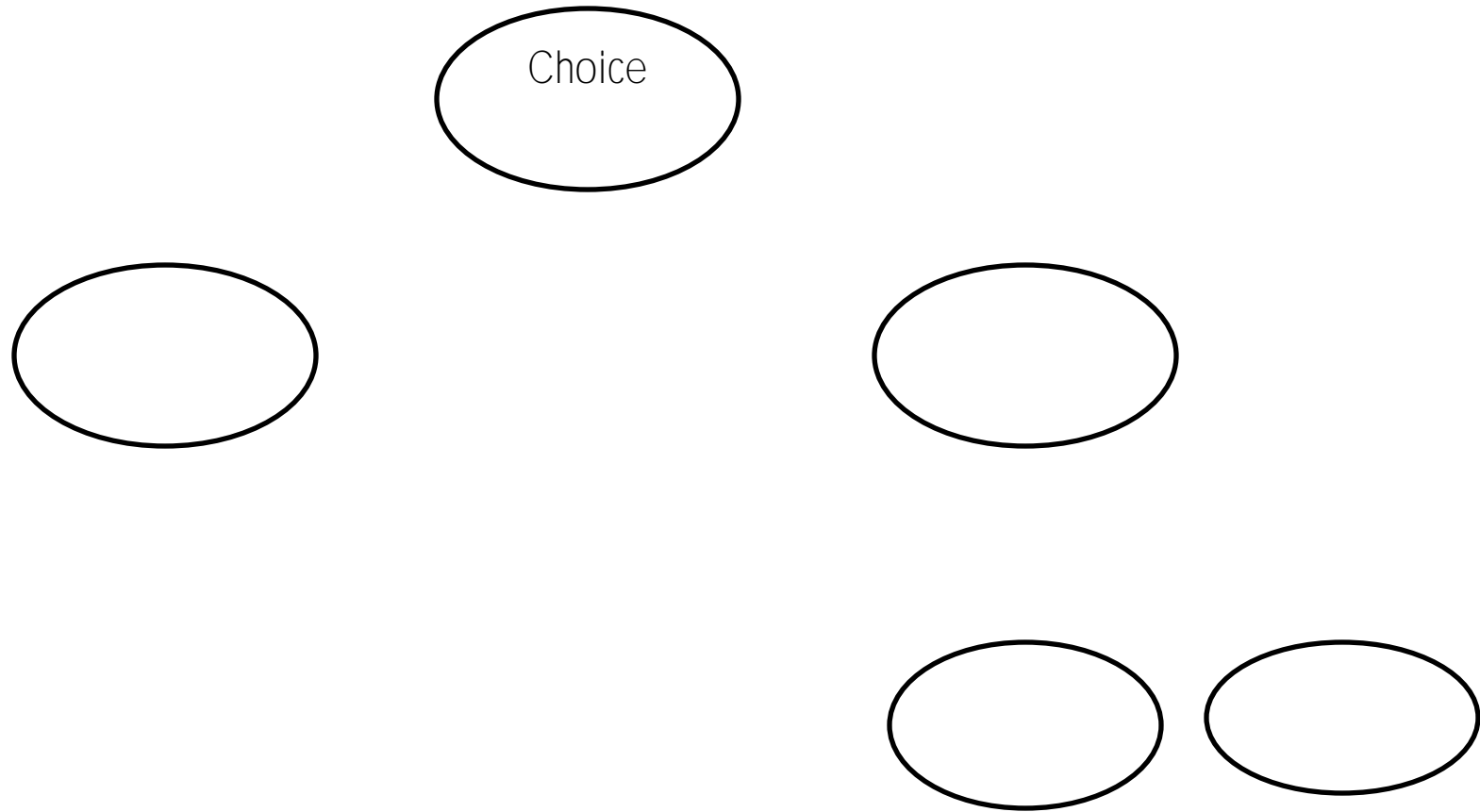




Method

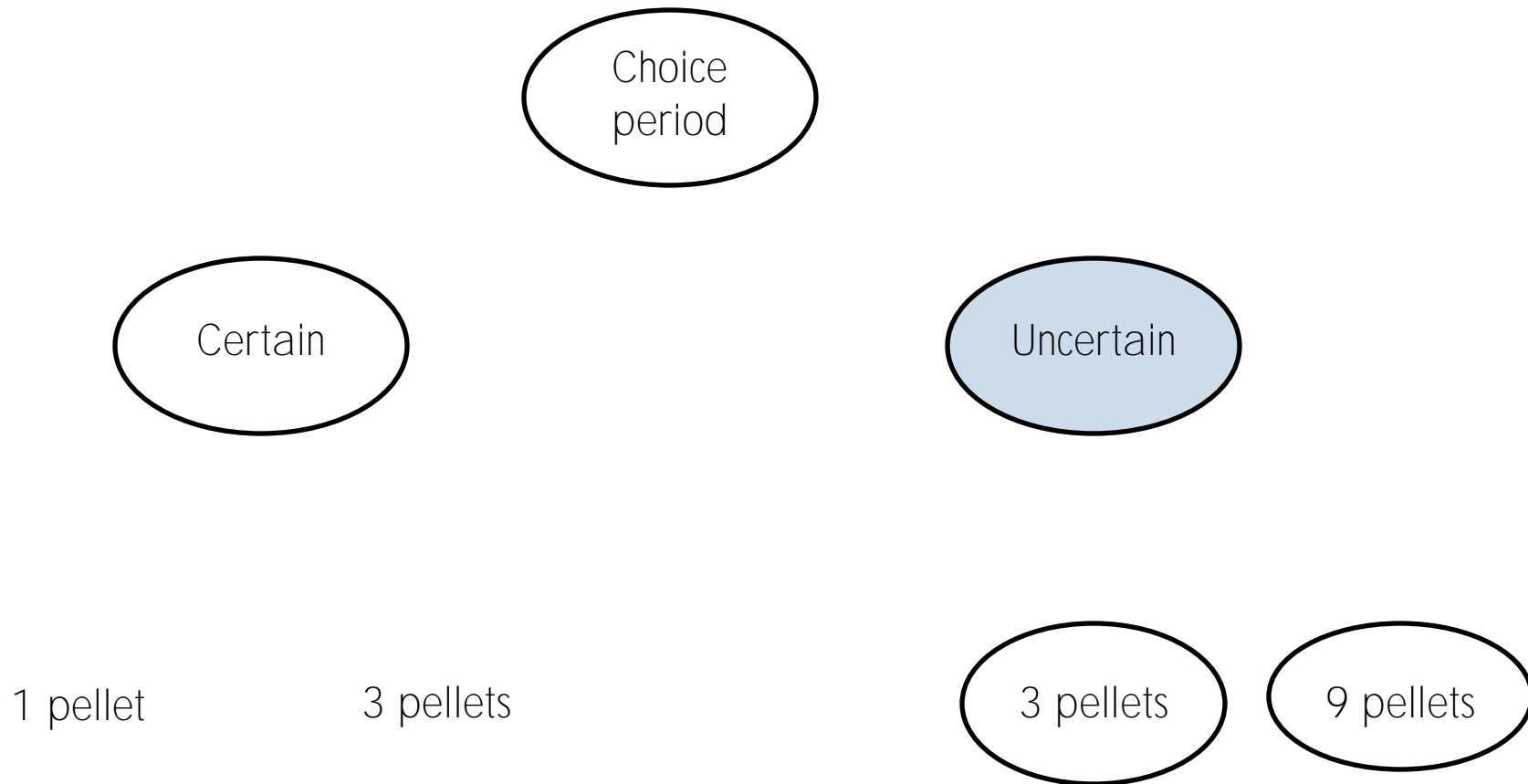


Method [Dynamic $p(\text{food})$: Phase 7]





Method [Dynamic p(food): Phase 7]



Method [Dynamic p(food): Phase 7]





Data analysis

- œ Proportion of choices for the uncertain side
- œ Parameters of fitting a logistic function

X = probability of food,

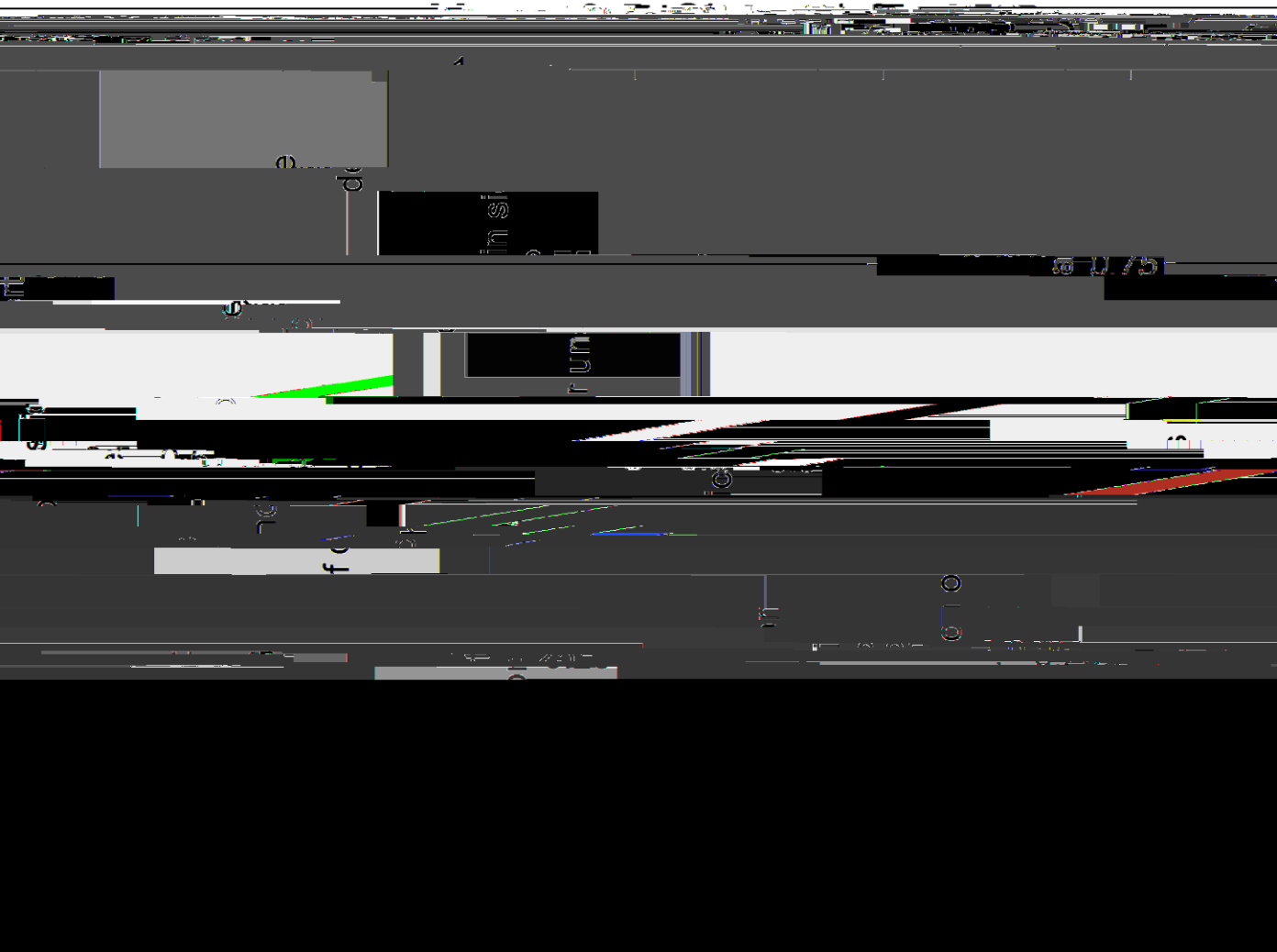
a = mean

b = slope

Logistic function



Logistic function



Logistic function

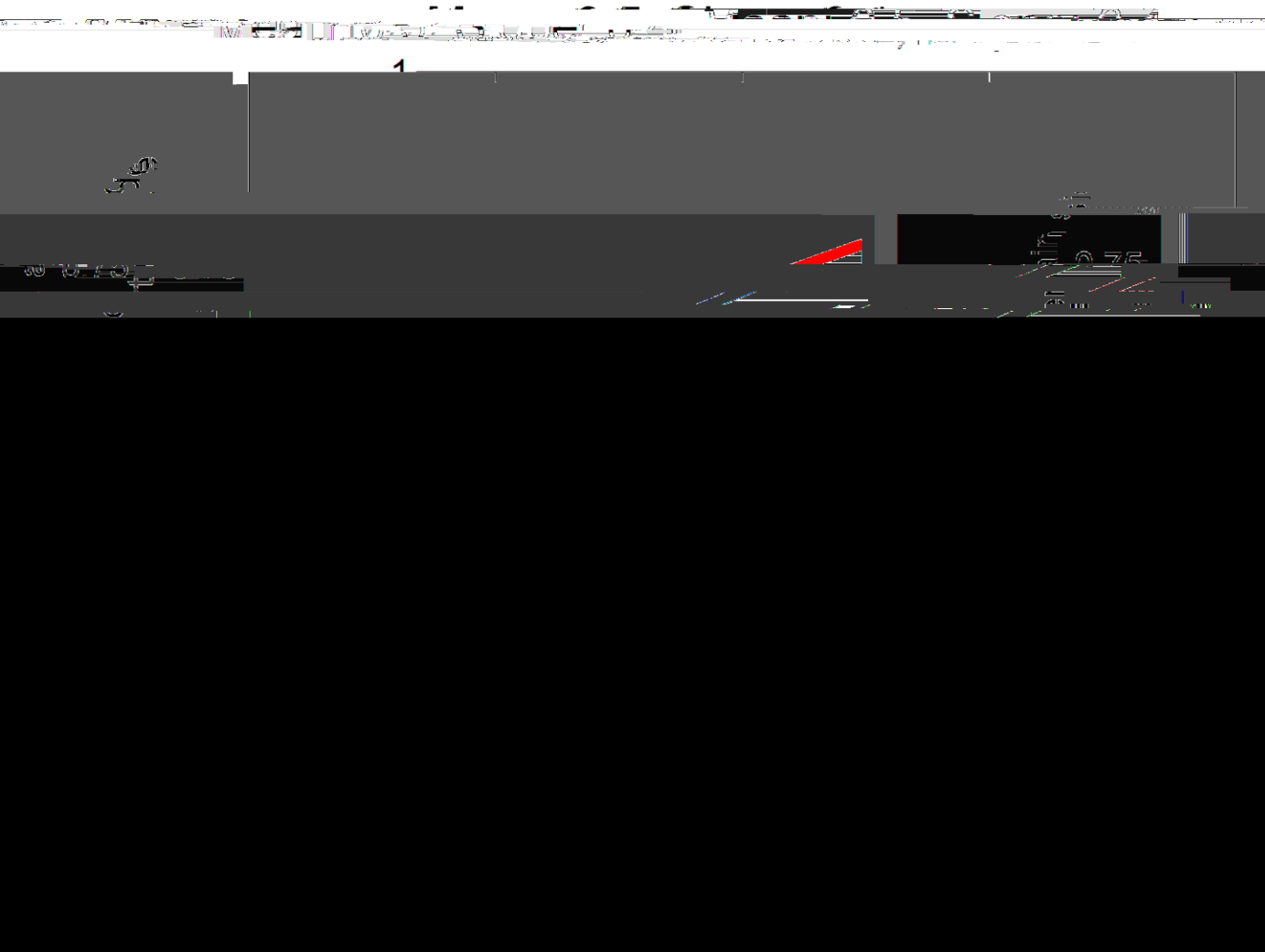


Logistic function

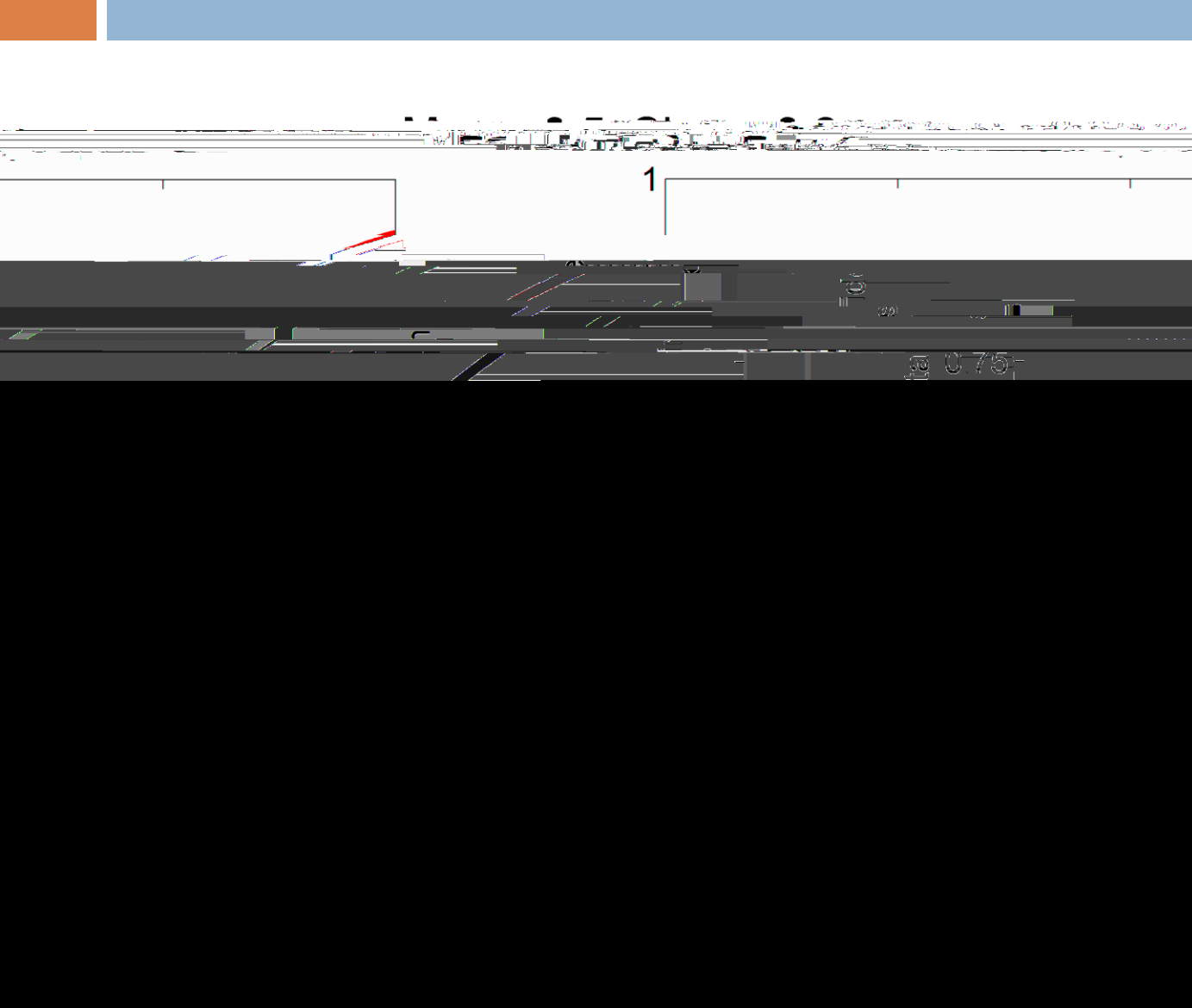




Logistic function



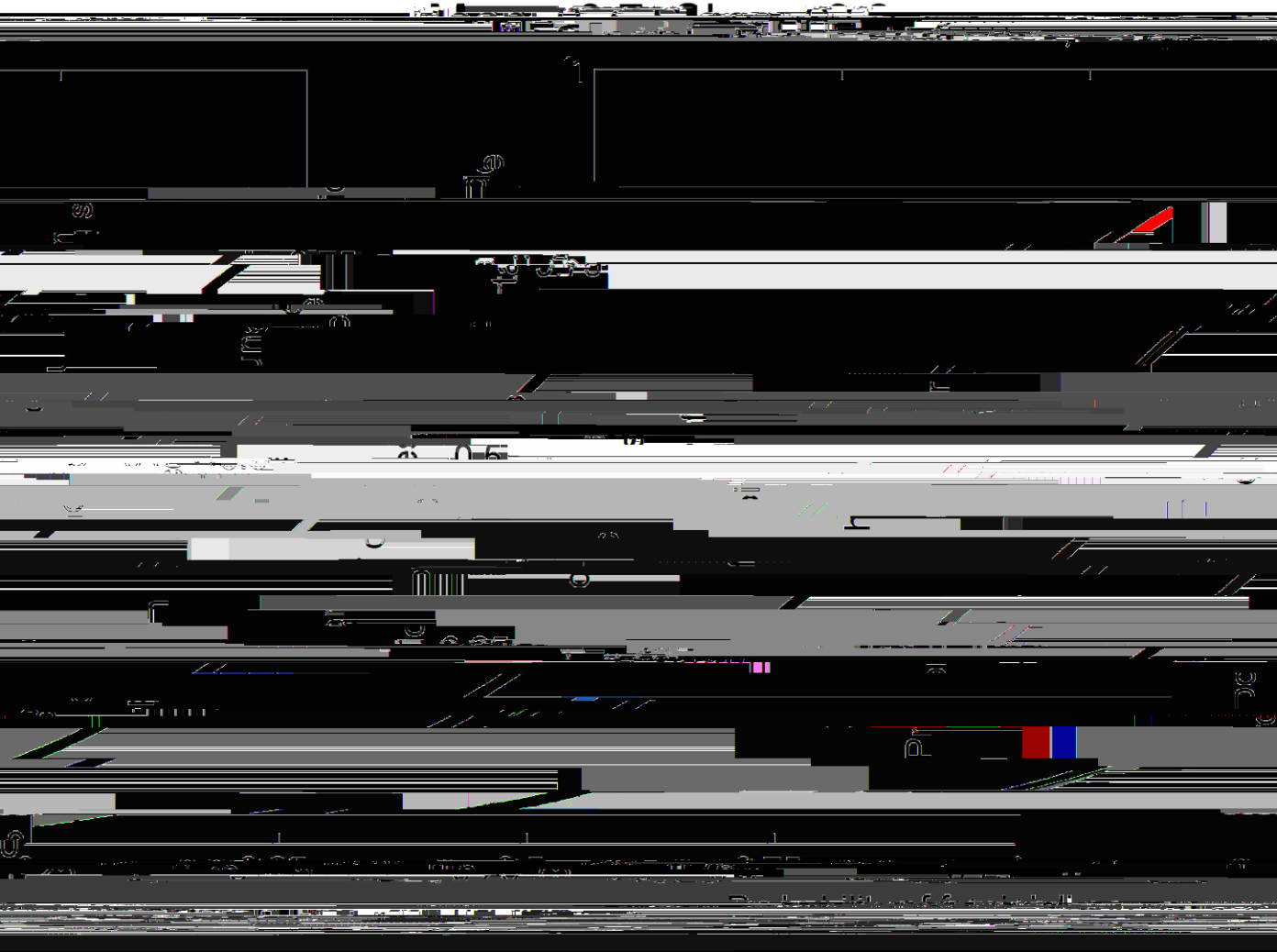
Logistic function



aller slope, greater
nsitivity to change
probability of food

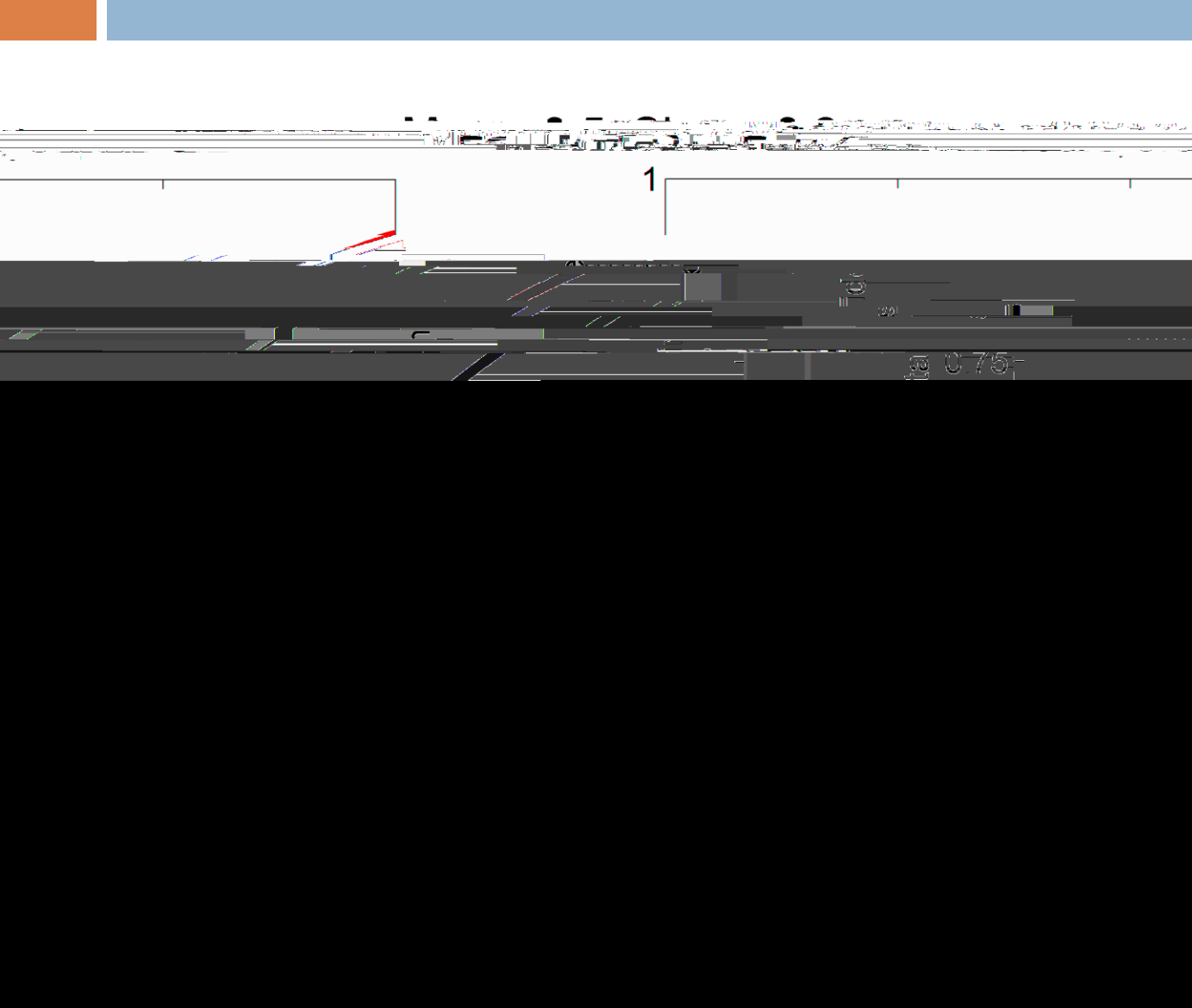


Logistic function





Logistic function



Logistic function



Logistic function



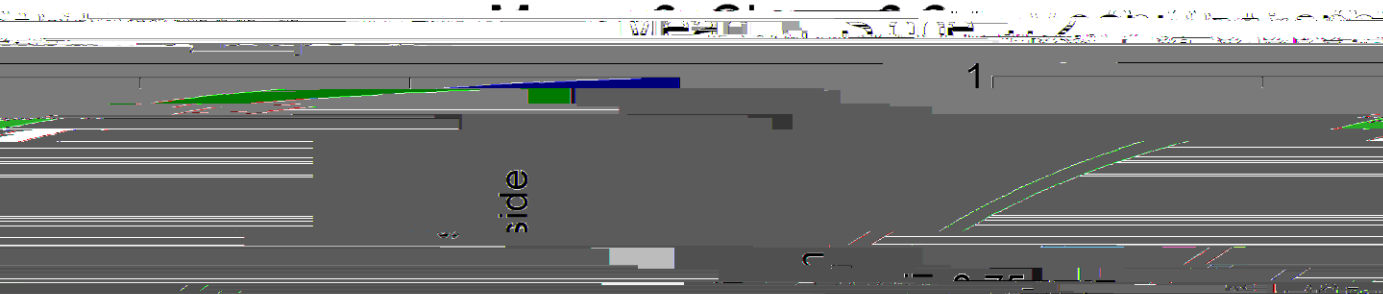
Logistic function



Logistic function



Logistic function



Overall choice behavior: Parameters











