

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

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Project Number

J0330

Project Title

Vicarious Learning: For Humans Only?

Abstract

Objectives/Goals

The goal of this project is to decide whether dogs could learn vicariously, that is, if dogs could learn to perform a task correctly faster if they watch another dog perform the task first.

Methods/Materials

In this experiment, two objects, a rectangular box and a blue cup, were placed a few feet away from the pair of dogs being tested. A treat was placed inside the box. The "model dog", the dog that performs the task first, was released. If they went to the box, they were rewarded with the small treat; if they went to the cup, nothing happened. This procedure was repeated until 15 tests' worth of data is collected. Then the "observer dog" was released, and the data was recorded. A timer was also used, only to tell if the dog went to the object quickly, which might signify that the dog was confident with his/her choice of objects, or if they went slowly, which might mean that the dog did not really know which object to go to.

Results

Overall, the model dogs went to the correct object in 104 out of 130 trials (80% of the time), while the observers went to the correct object in 117 trials out of 130 (90% of the time).

Conclusions/Discussion

In conclusion, the observer dogs went to the correct object in more experiments than the models did. This shows that dogs do learn faster if they watch another dog perform the task first, which supports the hypothesis that the observer dogs will learn faster than the model dogs. This information could help the animal training world train their animals more quickly through the use of vicarious learning.

Summary Statement

The goal of this project is to decide whether dogs could learn vicariously, that is, if dogs could learn to perform a task correctly faster if they watch another dog perform the task first.

Help Received

Grandfather helped with idea for project; Father helped find research; Mother helped with board; Teacher (Mrs. Hunker) helped organize project.