Do Multiple Trainers Increase the Speed of Canine Ability to Generalize a Learned Behavior?

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Introduction

• It is important for a dog to be able to follow commands from its trainer. For example, the dog should sit only when the “sit” command is presented and should shake only when the “shake” command is presented. Commands, such as sit, are referred to as discriminative stimuli. When the animals behavior is controlled by specific discriminative stimuli (commands) the trainer has obtained what is professionally called stimulus control.

• When the dog is under stimulus control of the owner, it is also important for the dog to generalize the learned commands to other people. For example, the dog should be able to comply to a sit command from the owner, the owners children, and any other human that comes into contact with the canine.

• Behavioral Applications Regarding Canines (BARC) has adopted a generalization procedure to increase the canines ability to generalize learned behavior but, there is no published research examining the efficacy of this training procedure. Therefore, we are interested in whether using multiple trainers when conducting generalization training increases the speed of the canines ability to generalize a learned behavior.

Method

Dogs

• N= 17
• All dogs used were housed at the Eau Claire County Humane Association.
• All dogs had the ability to sit on command and remain sitting for at least 5 seconds prior to beginning the study.
• No constraints were placed on age or breed of the dog.

Setting & Materials

• All sessions were conducted at the Eau Claire County Humane Association in a kennel or the staff lounge.
• Examples of reinforcers used are: hotdogs, verbal praise, physical praise, and toys.

Training

• Each dog was placed in one of three groups and received 8 training sessions.
  • Group 1- primary trainer trains all 8 sessions
  • Group 2- primary trainer trains 4 sessions, a generalization trainer trains 4 sessions each.
  • Group 3- primary trainer trains 2 sessions, 3 generalization trainers train 2 sessions each.
• Each session consisted of 20 trials.
• Each dog completed 8 sessions.
• After the completion of the 8 trials each dog experienced a generalization test. The generalization test used the same procedure by a trainer with no prior interactions with the dog. The test measured the dogs accuracy by determining the percentage of trails they got correct.

Results

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean:</td>
<td>Mean:</td>
<td>Mean:</td>
</tr>
<tr>
<td>84.2%</td>
<td>66.67%</td>
<td>68.33%</td>
</tr>
</tbody>
</table>

The graph shows the data for each dog (and the mean) in each of the 3 groups. The data in the table shows the data from each dog across successive training sessions. The data suggest that Group 1 (primary trainer only) may produce the highest degree of generalization. It also appears that training with multiple trainers may actually decrease the dogs ability to generalize a learned behavior.

• Inter-observer agreement was calculated for 10% of sessions with 100% agreement.

Discussion

• The mean of each group, displayed on the graph, shows that using trainers other than the primary trainer for generalization skill training actually decreases the canine’s accuracy in performing the correct behavior.

• Closer inspection of the data presented in the table suggests that the more trainers that are involved, based on average, the less accurate the canine becomes. Any intervention that decreases performance would be problematic.

• With the current date set, it appears that there may be a tendency for the control group (primary trainer only) to produce the most reliable generalization.

Future Research

• Obtain more dogs in the study to increase confidence in the pattern of results.
• Increase the number of session the dog participates in before the generalization test to allow for better stimulus control to be obtained by the generalization trainers which may result in more accurate results on the final test.

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