

Teaching a Young Dog New Tricks: Responding to Commands in American Sign Language

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1. Purpose

The purpose of this study was to train a dog to correctly respond to her owner’s presentation of two different American Sign Language (ASL) signs using a training package consisting of least-to-most prompts and verbal/social reinforcement. Response generalization to another trainer was also assessed.

2. Method

2.1. A. Subject and Setting

The subject was a 3-year-old female German Shepherd/Siberian Husky mix named Teddi. Although Teddi was capable of responding to many verbal commands (including “sit” and “come”), she was easily distracted, and did not always respond promptly to her owner’s verbal commands. Teddi had not previously been taught to respond to any ASL signs. This study took place in the basement of Teddi’s home in College Park, MD. The basement was 30 feet by 20 feet, divided by walls into different areas including a bathroom, laundry room, office, living room, and bedroom.

2.2. B. Behavioral Objectives

- Upon presentation of the ASL sign for “sit,” Teddi will sit within 5 seconds with 100% accuracy for 3 out of 4 consecutive days. Sitting is defined as her rear end and front paws on the floor with forelegs vertical.
- Upon the presentation of the ASL sign for “come,” Teddi will come within 5 seconds with 100% accuracy for 3 out of 4 consecutive days. Coming is defined as approaching the experimenter and stopping within 12 inches.

2.3. C. Procedures

The experimenter/trainer, Teddi's owner, was a graduate student in Special Education at the University of Maryland who had taken several courses in behavior management and ASL. A multiple baseline design across behaviors was used to determine the effects of the training package including a system of least-to-most prompts and verbal/social reinforcement upon response to the ASL signs for "sit" and "come." During baseline, no prompts or reinforcement were given. The experimenter simply made sure Teddi was looking at her, presented the appropriate sign, and waited 5 seconds for a response. Baselines for the signs "sit" and "come" lasted 3 and 13 days, respectively.

Following baseline on the sign "sit", the training package was introduced for "sit" while baseline conditions remained in effect for the sign "come." Upon presentation of the sign for "sit," Teddi was given 5 seconds to respond by sitting. If she did not respond in that time, she was given the verbal command "sit" paired with the sign. If she did not respond within 5 more seconds, she was given the verbal command, sign, and a physical prompt to sit (a push downward on the rear end). Regardless of the level of prompt, Teddi received verbal and social reinforcement for sitting (*e. g.*, "good girl" and petting). When Teddi reached criterion for the sign "sit" (10 days), the training package was then introduced for the sign "come." Correct response to the sign "sit" continued to be monitored. The training for "come" was similar to that described for "sit." Criterion for "come" was reached in 9 days.

The experimenter/trainer observed and recorded Teddi's responses during 4 trials per day, 2 trials in the morning and 2 in the evening. If Teddi correctly sat or came within 5 seconds of presentation of the sign, a correct response was scored. If she required more prompts, an incorrect response was recorded. In order to assess reliability, a next-door-neighbor also recorded the responses.

Upon reaching criterion for “come,” response generalization was assessed by the experimenter’s boyfriend, to whom Teddi usually responded when given verbal commands. He simply signed “sit” and “come” 4 times each day for a total of 5 days and waited 5 seconds for a response. Both experimenter and neighbor recorded the responses in the same manner described above.

The gross method for calculating reliability was used, wherein the agreement is simply the ratio of the number of correct responses recorded by each observer and is always less than or equal to 1. The percentage agreement is this ratio multiplied by 100. For the “sit” portion of the experiment, reliability was calculated once during baseline, 7 times during intervention, and twice during generalization. For the “come” portion of the experiment, reliability was calculated 5 times during baseline, 3 times during intervention, and twice during generalization. Thus, reliability was determined for 10 out of the 28 days.

3. Results

Prior to initiation of the intervention package, Teddi was unable to correctly respond to the ASL signs “sit” and “come.” After the intervention was introduced, she learned to respond within 10 days to the sign for “sit” and within 9 days to the sign for “come.” Teddi was able to generalize her correct responding when a different person presented the signs to her.

4. Discussion

Based on the results of this study, least-to-most prompts and verbal/social reinforcement can be effective in teaching basic ASL signs to dogs who already respond to the associated verbal commands. Teddi was able to learn 2 signs, “sit” and “come,” within 9 and 10 days, respectively, of introduction of the training package. The effectiveness of the training package was perhaps

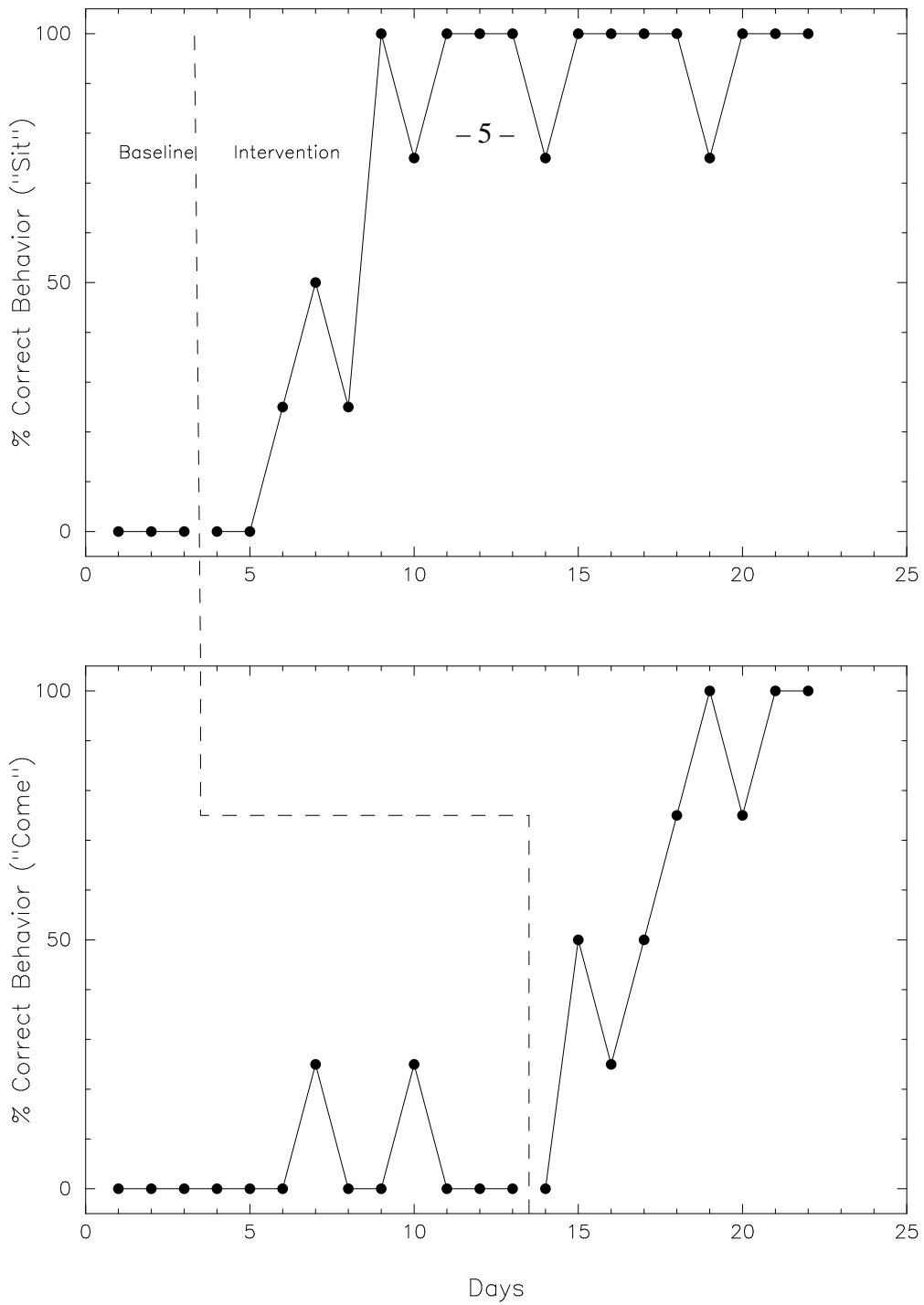


Fig. 1.— Percentage of behaviors performed correctly by Teddi in response to the ASL signs for “sit” and “come” during baseline and intervention (least-to-most prompts and verbal/social reinforcement) conditions.

enhanced by Teddi's desire to please the experimenter, who was also her owner. Furthermore, her high level of response generalization may have been influenced by the fact Teddi was already familiar with the novel trainer. Further research, using different signs and dogs, should be done in order to assess training package effectiveness. Experiments using unfamiliar trainers might also be useful in such an assessment.

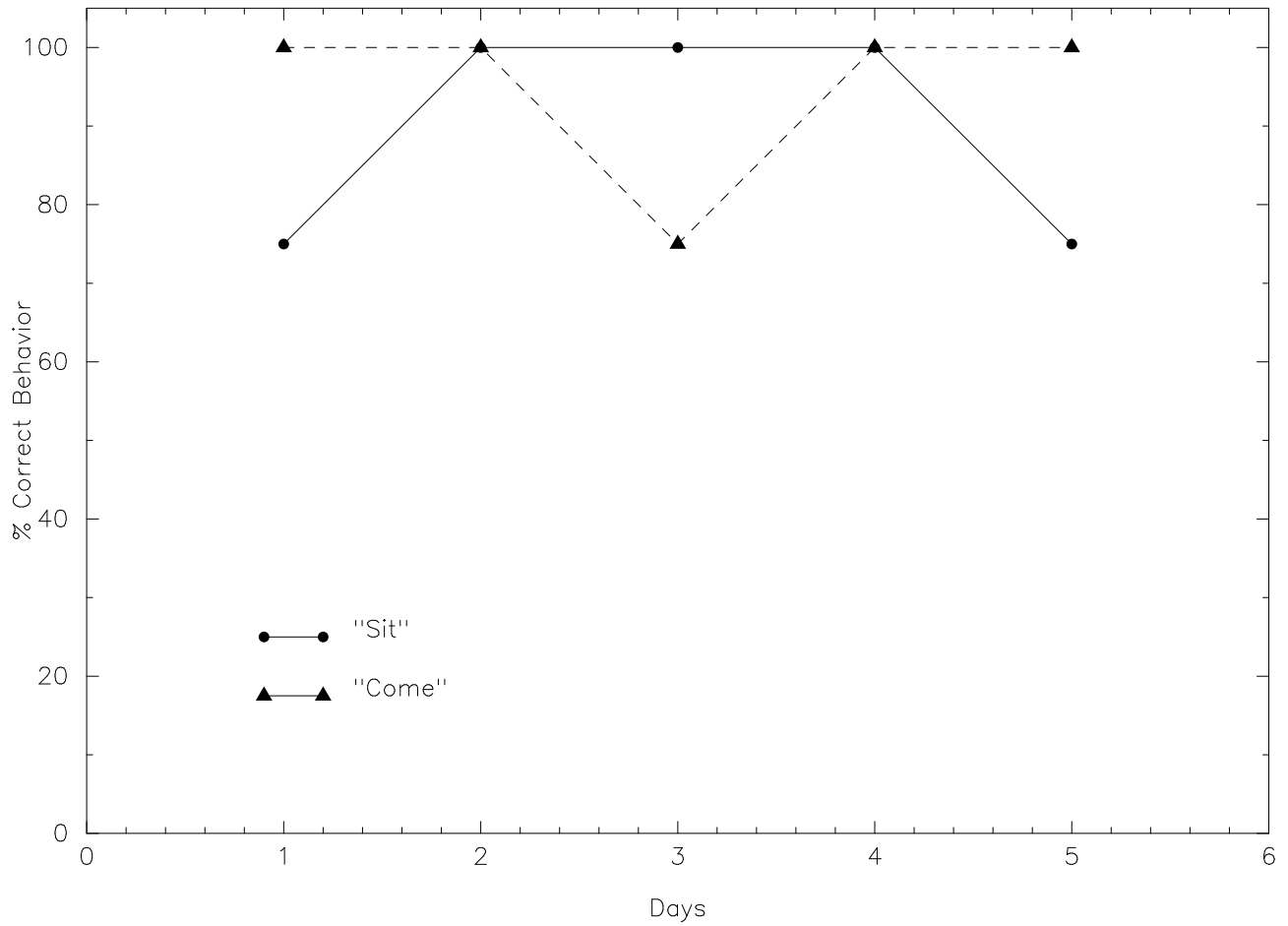


Fig. 2.— Percentage of behaviors performed correctly by Teddi in response to the ASL signs “sit” and “come” during generalization across trainers.