

Do Dogs Learn Faster for Food Than Other Types of Rewards?

New data explores whether food, petting, or verbal praise is most effective.
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I recently overheard a small group of "positive dog trainers" who were arguing over the effectiveness of various methods and rewards used in training dogs. Because of their strongly held views against [punishment](#) (in the form of hitting, slapping, or tugging hard on choke or prong collars) those methods were not even on the table for discussion. Instead the argument focused on the use of food rewards compared to other positive rewards such as petting, tossing a toy, or giving verbal praise in the form of something like a happy "Good dog!" Some members of the group argued that the use of food rewards constituted "bribery," and was ultimately ineffective since it meant that the dog would no longer work if food rewards were not available in some situation or stopped coming. Some others countered saying that while petting or stroking the dog might be rewarding, simple verbal praise meant nothing to the dog and therefore was not an effective tool for training.



These researchers decided to observe the course of dogs learning to respond to a pair of very common commands — the "sit-stay" and the recall or "come" command. All the dogs began by first mastering the "sit-stay" command. The sit-stay training was done in blocks of 10 with the experimenter giving the command and then walking a distance away. If the dog held his position until the trainer returned he was rewarded. To move on to the next stage the dog had to hold the sit-stay correctly for 10 trials in a row.

Once the sit-stay had been learned the recall command was next taught in stages. In the early part of training the dogs were asked to respond to the instruction to come from a distance of only one meter and later the distance was increased in stages to four meters. It is well-established that the reliability of dogs responding to a recall instruction diminishes when the dog is farther away. For each phase of training the dog was worked until it was reliably responding at least 75% of the time.

Three groups of dogs were used, each defined by a different kind of reward. In the food reward group each correct response was rewarded with a small edible treat. A second group of dogs was rewarded by stroking or petting from the top of the dogs head down to its neck or shoulder. The third group of dogs received a happy bit of verbal praise equivalent to saying "good dog".

For the sit-stay training (which the experimenters called their "baseline") the type of reward had a large effect. Food rewards were most effective and required the fewest number of training trials. On average the dogs who were rewarded with food required around only 5 blocks of training to achieve the required 10 sit-stays in a row. This is compared to the 13 blocks required for the dogs that were stroked or petted as a reward or the 12 blocks required for the dogs who received the verbal praise.

When we look at the recall training the difference in the number of training sessions needed to achieve the 75% correct at each distance was not as clearly influenced by the type of reward. Although early in training, at the relatively close distance of two meters, the dogs who were food rewarded took only one 20 trial training session to succeed, while dogs that were stroked or petted took two sessions, and dogs who received only verbal praise took four sessions, for all of the other distances there were no differences. Thus early in training for this command there seems to be a bit of an advantage in food reward, but not overall.

The picture is quite different if we consider the speed with which the dog responds to the recall command. Here it is quite clear that dogs who receive food rewards are much more enthusiastic and respond more quickly. In fact the food rewarded dogs on average take only around half the time to arrive in front of the trainer than it takes for the dogs receiving only petting or praise. This difference holds up over virtually all of the distances tested. When we compare the effectiveness of petting versus verbal praise, the physical stroking seems to be slightly more effective, but the differences are certainly not all that large.

To my eye these results suggest that food reward is somewhat more effective than either of the other two most frequently used positive rewards (petting and praise). However the sample size used here was smaller than I would have liked to have seen (only 15 dogs) so more testing is required. On the other hand, this is the first data that I have encountered which looks at this issue and it is at least a start toward settling the ongoing debate as to which training rewards are most effective for dogs.

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