

What Many Dogs Want Just as Much as Treats

Especially if your pet makes a beeline for his or her food dish, or swallows treats nearly whole, you may be surprised at what researchers discovered when they set out to find out what means just as much or even more than food rewards to this group of 15 dogs.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- A small study attempts to answer the question of whether dogs prefer treats over praise, or vice versa
- Researchers used fMRI scanners to observe the neural activity of 15 dogs presented with the opportunity for praise from their owners, or tasty treats
- Most of the dogs (13 of 15) showed the same or more brain activity when they were praised; only two dogs showed a consistent preference for food
- An earlier study to determine whether dogs prefer petting to praise concluded that petting is the clear and consistent winner
- Being petted is likely a naturally occurring reinforcing stimulus for dogs, whereas praise alone isn't effective and may need to be paired with petting or food

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Have you ever secretly wondered if your canine BFF would sell you out for a tasty treat? It's a legitimate question because after all, most dogs are highly motivated by food. It's why training treats exist. It's why dog behavior experts and trainers almost always suggest using food rewards to help shape your pet's behavior.

So if you've ever asked yourself, "Does little Max (or Molly) love me, or just the food I provide?" you're not alone. But there's reason to take heart based on the results of a small study that evaluated which thing dogs prefer more — food rewards, or praise from their human.

Some Dogs Value Praise at Least as Highly as Food Treats

A team of researchers at Emory University used fMRI scanners to look at the brains of 15 dogs as their owners either praised them or offered them a food treat.¹ The dogs were first trained to associate three different objects with three different outcomes. A pink toy truck meant a food reward; a blue toy knight meant verbal praise from the dog's owner and a hairbrush meant no reward.

The dogs were put through 32 trials for each object while the fMRI machine recorded their brain activity. Predictably, all 15 dogs reacted more strongly to the truck and the toy knight than the hairbrush. Also:

- Nine of the 15 showed similar neural activity in response to both the truck and the toy knight, indicating they found both treats and praise equally motivating
- Four dogs showed an especially strong reaction to the blue toy knight, suggesting they were apt to be more motivated by praise than food
- The remaining two dogs showed a consistently stronger reaction to the pink toy truck, indicating a preference for treats over praise

Bottom line: For most of the dogs (13 of the 15), the areas of the brain responsible for reward and decision-making showed the same or more activity when they were praised than when they received a treat.

Most Dogs Seek Human Interaction for Its Own Sake

In the second phase of the experiment, the dogs were put in a simple maze constructed with baby gates. There was a bowl of food at the end of one path in the maze, and their humans sat with their backs to them at the end of a second path. Most of the dogs took the path that led to their owners, and received praise.

The dogs who headed for the food bowl were the same ones who showed a preference for treats over praise during the fMRI scan. Emory neuroscientist and lead study author Dr. Gregory Berns summed it up this way:

*"We are trying to understand the basis of the **dog-human bond** and whether it's mainly about food, or about the relationship itself. Out of the 13 dogs that completed the study, we found that most of them either preferred praise from their owners over food, or they appeared to like both equally. Only two of the dogs were real chowhounds, showing a strong preference for the food."*²

One of the chowhounds was a shorthaired terrier mix named **Ozzie**. Ozzie chose food over his owner's praise 100% of the time. (No worries — his owner understands that Ozzie's a foodie and loves him anyway!)

Conventional wisdom holds that dogs are primarily "Pavlovian machines" says Berns. In other words, their only motivation is food, and the humans in their lives are simply a means to an end. However, a more current view is that dogs also seek human contact for its own sake.

"Dogs are individuals and their neurological profiles fit the behavioral choices they make," says Berns. "Most of the dogs alternated between food and owner, but the dogs with the strongest neural response to praise chose to go to their owners 80% to 90% of the time."

*It shows the importance of social reward and praise to dogs. It may be analogous to how we humans feel when someone praises us."*³

The flip side of the Ozzie coin was a Labrador-Golden Retriever mix named **Kady**, who was quite consistent in her preference for praise. This will make perfect sense if you're familiar with these breeds, as they tend to be exceptionally motivated by a desire to please their humans.

That's why there are so many Labs and Goldens doing therapy work, whereas dogs who aren't highly motivated by praise may be better suited for work requiring a degree of independence, such as **search and rescue**.

Earlier Study Measured the Value of Petting Versus Praise

If you're surprised most of the dogs in the Emory study seemed to value praise and treats more or less equally, you'll probably be much less surprised at the results of an earlier study that proves your furry companion loves to be petted. Researchers from the University of Florida and the University of Arizona set out to determine whether dogs favor petting over verbal praise, as well as whether it mattered to the dogs who did the petting or praising — their owner or a stranger.⁴

The researchers worked with three groups of dogs — shelter dogs, family dogs tested with strangers and family dogs tested with their humans. Each dog was brought into a room on leash to meet two assistants sitting in chairs. For the first two groups of dogs, both assistants were strangers, but for the third group, one assistant was a stranger and the other was the dog's owner. One of the two assistants greeted the dog with praise; the other greeting involved petting.

The dog was then taken to a point in the room an equal distance from both assistants, the leash was removed and the dog's voluntary interaction with each assistant was measured in 10-minute sessions. During each session, the assistants offered either praise only, or petting only for five minutes. Then they switched roles for the remaining five minutes. The dogs were measured according to the physical closeness and amount of time spent with each assistant.

Petting Is the Clear Winner

The results of the experiment left no room for doubt — every single dog preferred petting to verbal praise. Not only did the dogs spend more time with the person doing the petting, they did so even when it was their owner doing the praising, and a stranger doing the petting.

And when the assistants switched places halfway through the session, the dogs continued to hang with the petting person. It's possible that one of the reasons dogs dig petting so much is because their heart rate and blood pressure are lowered by human petting.⁵

So whether it's shelter dogs or family dogs, and whether they're with their own humans or strangers, dogs will choose petting over praise every time. They can't get enough of it. And while verbal praise temporarily interested the dogs, it didn't rank much higher than no interaction at all.

According to the researchers, these results confirm that petting provides positive reinforcement for canine behavior. Being petted is likely a naturally occurring reinforcing stimulus for dogs, whereas praise alone isn't effective and may need to be paired with petting or food.⁶

Sources and References

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[Science, August 12, 2016](#)

¹ [Social, Cognitive and Affective Neuroscience, July 7, 2016](#)

^{2,3} [Emory University, August 16, 2016](#)

⁴ [Behav Processes. 2015 Jan;110:47-59.](#)

⁵ [Conditional Reflex, Volume 3, Pages 69–80, \(1968\).](#)

⁶ [J Exp Anal Behav. 2014 May;101\(3\):385-405](#)
