

Canine Learning Theory (How Dogs Learn)



How dogs learn, in many ways, is very similar to how humans learn. The biggest difference is often that the way dogs learn is much simpler than humans. The concept of learning theory is a vast section of psychology and canine psychology that cannot easily be summarized and still be all-encompassing.

Here are some of the fundamental aspects of canine learning theory that is common across all dogs, and are helpful to incorporate in context of your dog's every day life.

Every Interaction is a Learning Experience

Our dogs are constantly learning from every experience, every situation, and every interaction they have with you as their owner. The simplest way to understand how dogs learn is by understanding that they associate every behavior or situation with what type of consequence follows.

If the dog does something, and they get something good out of it, they are likely to do that behavior again. If the dog experiences something new, and they get a negative consequence, they may avoid that experience or similar experiences in the future.

These are very general ways of describing the fundamental concepts of reinforcement and punishment.

Reinforcement

In its simplest form, reinforcement is anything that follows a dog's behavior that will increase the likelihood of the dog doing that behavior more often. For an example, if I give my dog a treat every time he sits, he is likely to sit more often because he has begun to associate sitting with getting something good.

Punishment

Punishment is anything that follows your dog's behavior that will reduce the likelihood of your dog doing that behavior again. For an example, if my dog jumps on a stranger while we are on our walk and give him a sharp tug downward on the leash, he may begin to reconsider whether he wants to attempt to do that again.

The Reinforcement and Punishment Quadrants (The Four Quadrants of Operant Conditioning)

Positive vs. Negative

Positive and Negative Reinforcement: We are all familiar with the terms positive reinforcement and negative reinforcement, but there is often some confusion about what these terms actually mean. In learning theory and the quadrants of operant condition, positive refers to adding something to change behavior, and negative means to remove something to change behavior.

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So, positive reinforcement means adding or giving something to your dog to increase a behavior, such as giving your dog a treat when they sit.

People often confuse negative reinforcement with the concept of punishment, but like we discussed earlier, reinforcement is anything that you do that increases your dog's behavior. And we stated that in this context, negative means to take something away. So, negative reinforcement is the act of taking something away to increase a behavior.

An example of negative reinforcement would be if I used some upward leash pressure to indicate to my dog that I want her to sit, and the moment that she sat, I released the pressure. My dog will begin to associate that when she sits, the pressure goes away. If she doesn't like the leash pressure, she is likely to sit more often.

	Punishment (decreasing behavior)	Reinforcement (increasing behavior)
Positive (adding)	adding something to decrease behavior	adding something to increase behavior
Negative (subtracting)	subtracting something to decrease behavior	subtracting something to increase behavior

Positive and Negative Punishment: Punishment is anything that follows a behavior that will decrease the likelihood of that behavior occurring in the future. Punishment also comes in the forms of positive punishment and negative punishment.

Just like with reinforcement, positive means adding something and negative means taking something away, but in this case the intent is to decrease a behavior. Punishment is a natural part of learning and happens just as much in nature as it does in training. If a dog decides to try to catch a porcupine and instead catches a face full of spines, that dog will be much less likely to try to mess with a porcupine in the future.

In dog training punishment can be used in various forms to change your dog's behavior. You can use "Time Outs", take away their toy, end play time, use leash corrections, use remote collars, shaker cans, or other various types of punishment.

Positive punishment includes punishments in which you are adding the consequence following the undesired behavior. Just like in the example where my dog jumps on a stranger and I follow his action by adding a sharp downward leash tug as a punishment.

Negative punishment would be act of removing something following an undesired behavior. An example of this would be to remove a toy if my dog was playing inappropriately with it. Using a time out by sending your dog to its kennel would be removing your dog's freedom as a form of punishment.

Getting to "Sit" (The 4 Stages of Learning)

When we want to train a dog to perform a specific action, such as "Sit", our dogs go through stages of learning. In the very beginning, if a dog has never been trained, the word "Sit" means absolutely nothing to them, and repeatedly saying the command while holding a cookie in front of them is a relatively inefficient way to teach a dog to sit, and I'll explain why during this section on the four states of learning.

Stage 1: Acquisition (Showing the Behavior)

When you first want to teach your dog how to sit, you should begin by just encouraging your dog to perform the behavior. During this stage, telling your dog to “sit” is meaningless and will actually reduce the value of the word later in the program, so its advised not to say anything to your dog except for “Good Boy/Girl” or “Yes!” when they actually perform the behavior.

You can encourage your dog to sit by holding them close to you and putting mild pressure on top of their hips. You can also use a little upwards pressure with the leash as well. Dogs naturally will pull away from leash pressure and they are likely to pull their body down into the sit position.

However you choose to help your dog into the sit position, when he actually does the action, this is considered the first stage of learning. When your dog performs the desired behavior, if you reinforce it, your dog will be more likely to perform the behavior again. If you used leash pressure to help your dog sit, when he sits, if you release the leash pressure, this is “Negative Reinforcement” (taking away the leash pressure to encourage your dog to sit more often). If you give your dog a treat when he sits, this is positive reinforcement.

During this stage, you want to repeatedly get your dog to perform the behavior and continuously reinforce the behavior each time it is performed.

Stage 2: Automation (Dog offers the behavior in anticipation of the reinforcement)

Once you’ve repeated the behavior numerous times in Stage 1, your dog may start to beat you to the punch. What this means is that as you are about to apply pressure to your dog’s hips, he may automatically sit. This means that your dog has progressed into Stage 2.

Stage 2 is when your dog begins offering the behavior more frequently with the expectation of receiving a reinforcement for the behavior. During this stage you can identify what cue it is that is telling your dog that you want them to perform the behavior and they will receive a reward.

If you have been using the leash to help your dog sit in Stage 1, the moment your dog feels the leash pressure they may automatically sit knowing that by sitting, the pressure will go away and they will get a treat. Or your dog knows that every time you come to a halt, you apply the leash pressure, he may try to sit as soon as you stop to avoid feeling the leash pressure entirely.

Once your dog is offering the behavior automatically in response to a cue, you can begin to teach the actual command. Your dog already knows how to do the behavior with given a cue, now you are just giving it a formal name.

The key to remember during this stage is “New cue, followed by old cue.” So, if your dog automatically sits when he feels the upwards leash pressure (old cue), you would now tell him to “Sit” (new cue), followed by applying the leash pressure (old cue).

Stage 3: Application (Putting the Behavior on Command)

The application stage is when your dog begins to understand the association between the command the and behavior. If every time you tell your dog to “Sit” you apply the upwards leash pressure, your dog again will try to beat your to the punch.

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This process may take numerous repetitions for your dog to realize that every time you tell him to sit you apply the leash pressure and then he sits to make the pressure go away. But eventually he will figure it out, “If I just sit before I feel the pressure, I won’t have to feel the leash pressure at all... this is way easier!”

This is why it is important to remember “New cue, followed by old cue.” By waiting until after you have given the sit command to then apply the leash pressure, you give your dog the opportunity to beat you to it. Give your dog the opportunity to realize he can just sit before you give him the leash pressure.

Stage 4: Always (Maintenance)

Maintenance occurs once your dog fully understand that the word “Sit” means that he needs to put his butt on the ground and keep it there until told otherwise. Stage 4 continues indefinitely.

Many dog training clients complain that after a period of time after they have completed their dog training program that their dogs have stopped responding to commands. This is often the result of the owners not always enforcing the commands.

It is not unreasonable to give your dog a correction for choosing not to perform a reasonable task such as sitting on command, but only if they have been effectively taught what the command means.

This goes back to the beginning of this article where we discussed how dogs are constantly learning from every situation and interaction they have. If you tell your dog to sit, and he doesn’t, and nothing happens, he begins to learn that he can get away with not sitting.

Or if you tell your dog to sit, and you never reinforce the behavior with a treat or pet and praise, your dog may begin to realize that doing what they are told just isn’t worth it anymore.

The Big Three

There are three fundamental elements that need to be in place in order for dogs to learn:

- Timing
- Consistency
- Motivation

Timing

We’ve discussed at length that dogs learn from the consequences of their behaviors. This means if they do something and something good happens, they will do that behavior more. If they do something and something bad happens, they will likely do that behavior less.

The important fundamental of timing is key for the dog to be able to associate a consequence to the specific behavior. If your dog has an accident in the house at some point while your are away at work, punishing the dog when you get home is ineffective because the dog doesn’t

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associate the punishment with the behavior of going to the bathroom inside the home because too much time has passed between the behavior and the consequence.

Dogs have a 1.3 second window to associate a consequence with a behavior. This is why many trainers incorporate “Marker Training” into their regiment. Marker training means using a neutral marking like “Yes” or “No” and pairing each with either a positive or negative consequence.

If your dog gets a treat every time he hears the word “Yes”, he will easily associate that the word yes means he did something good. If your dog gets a stiff tug on the leash every time he hears the word “No”, he will be able to understand that the word “No” means that he did something he shouldn’t do again.

Marker training is important, especially when addressing a behavior that is maybe performed from a distance. If I tell my dog to sit while she is 30’ away from me, it would take me much longer than 1.3 seconds to walk over to her to give her a treat or a toy, but by immediately telling her “Yes” when she sat, she immediately knows she did the right thing and that the reward is coming.

Consistency

Consistency refers to the frequency with which you provide the consequences for your dog’s behaviors. If your dog gets a reinforcing reward every single time they sit when given the command, and a punishment every time they choose not sit when they are told to, they will be far more likely to sit the first time and every time they are told.

Consistency is really important because this is how you develop clear communication between you and your dog. If when your dog jumps on the couch, sometimes he gets punished and forced to get off the couch and other times you let him cuddle up with you on the couch to watch a movie, you dog may become confused about whether or not he is allowed on the couch.

Clearly defining what behaviors you expect from your dog and what behaviors are inappropriate using reinforcement and punishment allow your dog to understand their expectations and their role in the home.

Motivation

Finding ways to motivate your dog to behaving appropriately and doing as they are told is the foundation for dog training. Most dogs are happy working for food, while others may not care about food or treats. Some dogs you can reward with a toy and a rousing play session, others are happy with “Good Boy” and a few head scratches.

Finding the right motivations for your dog will make your training sessions more efficient and effective! While avoiding leash pressure or punishment can be used as a motivation, we find that using lots of positive reinforcement for your dog’s good decisions can make a much larger impact.

Also, using the appropriate value of reward for the respective work is also something to keep in mind. If I offered you a nickel to run the length of the football field and back, you probably decline the offer. But, if I offered you a \$100 to do it, you’d probably jump at the chance!

Dogs are the same way. If you are asking your dog to perform long duration behaviors, sequence or chain behaviors that involve multiple steps, or any behavior that involves greater

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amount of effort or work, you should be prepared to pay up! If after successfully performing a challenging behavior or obedience routine you reward your dog with a couple pieces of kibble, he might be reluctant to perform as well the next time.

Conclusion

The ways that dogs learn are based on what happens as a result of their choices. Ultimately, dog training teaches our dogs that it is in their best interest to make good choices. Once your dog learns to make better choices in your presence as well as in your absence, you'll know that your training is effective.

Effective, science-based training is the foundation to developing your dogs character and helping your dog become a better version of themselves.

I hope that this information was helpful and clearly explained to make it easily understood. Our goal is to help educate our communities on how to live their best lives with their dogs and make training a rewarding experience for everyone involved.

If you would like more information on any of the topics discussed here, reach out to us at contact@ak9acadmey.com or call (910) 364 - 9188.

Are you ready to get serious about dog training? Call (910) 364 - 9188 to get involved in our dog training programs!

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