

# Dog Training by PJ

5303 Louie Lane #19, Reno, Nevada 89511

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## Rewards or Punishments:

### How Do Dogs Learn?

#### Part III

*This is part III of the series: Rewards or Punishments: Consider Reinforcement First (part I)  
Ideas and Methods: Pseudoscience, Science, Anecdotal and How Do Dogs Learn (part II)*

**By: Pamela "PJ" Wangsness, CPDT**

After reading the first and second parts in this series, "Rewards or Punishments: What to Consider," and "Rewards or Punishments: Ideas and Methods: Pseudoscience, Science, Anecdotal, and How Do Dogs Learn" now consider the remaining questions:

- What are the stages of learning
- Define learning theory
- What is aversive control
- Are you enthusiastic and willing to utilize the methods you choose
- Should you consider the type of relationship you have or desire with your dog

## STAGES OF LEARNING

Before 1900 most accounts of learning in animals were anecdotal. Now, behaviorism has permeated all areas of psychology and refers to the study of behavior and the study of observable events. Many studied the laws of behavior and the cause and effects. So, in order to study learning and behavior we need to understand the stages of learning.

There are four sequential stages for learning, (1) acquisition, when the dog acquires the new knowledge, (2) fluency, where the dog becomes fluent in the new knowledge, (3) generalization, when the dog can use this new knowledge in a variety of circumstances and situations and (4) maintenance, when the behavior is incorporated into the dog's behavioral repertoire.<sup>1</sup>

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<sup>1</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, pp 9-10

## WHAT IS LEARNING THEORY

While behaviorism is the science of behavior, operant and classical conditioning is part of behaviorism and can be used to explain the relationship between environmental events and actions. Does the name Pavlov ring a bell? He thought the dogs were associating the lab assistants or the sound of the door opening with food. So he tested this theory by ringing a bell just before feeding the dogs. After a number of trials, what he discovered was the dogs were salivating upon the ringing of the bell in anticipation of the food arriving. This *conditioned reflex* is often referred to as "*Pavlovian conditioning* or **Classical conditioning**."<sup>2</sup> Basically, classical conditioning is when an animal learns to associate things or discovers some things just "go together." Actually the dog is responding to the first event in **anticipation** of the second event. For example, you take out your leash, the dog responds to seeing the leash by getting all excited because the dog anticipates the walk.

Additionally, when training you'll want to remember Thorndike's Law of Effect, which basically states "responses that produce rewards tend to increase in frequency and responses where the result is unpleasant the preceding behavior becomes less likely." So, Pavlov studied the kind of learning, while Thorndike studied how various or different consequences effected new behaviors.<sup>3</sup>

Let's add, **operant conditioning** or as it is sometimes referred to as *Skinnerian conditioning*, which basically means an animal learns that behavior has consequences. Simply stated, it is called operant conditioning because the behavior *operates* on, or has an effect on, the animal's world. It is also called instrumental conditioning: responses occur because they are instrumental in making something happen.<sup>4</sup> Operant behaviors are controlled by consequences. In dog training the trainer or dog owner mediates most of those consequences. For example if you ask your dog to sit and he doesn't, he does not earn the reward/reinforcer. On the same hand, if you don't work you don't get paid and if you don't put fuel in your vehicle it will not run. Just as we do things because "things happen" the dog learns these same relationships "things happen if I do this." Of course, good trainers experiment with a variety of reinforcers (rewards) and have an understanding of

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<sup>2</sup> How Dog Learn, Mary R. Burch, Ph.D and Jon S. Bailey, Ph.D., Howell Book House, 1999, pp. 3-5

<sup>3</sup> How Dog Learn, Mary R. Burch, Ph.D and Jon S. Bailey, Ph.D., Howell Book House, 1999, p 4

<sup>4</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, p 25

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dogs. For some dogs, food is high value reinforcer, while for others the dog is attention oriented, while others enjoy play, chase, or some other "thing" the dog considers valuable and can be used as a reinforcer. The key is to find what the dog enjoys and finds "rewarding." Something to consider, if you were taking an oral exam, and you weren't answering the problems correctly, your instructor slapped you beside the head. Would you learn any quicker? Probably, you would not learn quicker. However, if your instructor explained if you learned and solved the problems correctly, you would be rewarded with something you found pleasurable, would you try harder or stop trying? This is operant conditioning - there is consequences to choices you make. Both types of learning, operant conditioning and classical conditioning play a critical role when training dogs.

Dogs also learn through single event learning or "what is important in my world." In other words, a single event might not have any meaning or is not related to anything else. For example, noises (stimulus) and once the dog stops reacting to the meaningless stimuli, he becomes "**habituated**" to the noise (event.) A good example is you ring a bell "for no good reason." Now, at first your dog may react, however, after several trials the dog will cease because he has learned it has no significant relation to anything.<sup>5</sup>

On the other side of habituation, is "**sensitization.**" Some dogs' reactions become stronger to the stimuli instead of habituating to the repeated stimuli or event. For example, you ring the bell and the dog becomes over stimulated and barks uncontrollably. This dog has become sensitized to the stimuli (bell ringing.) Sensitizing produces an effect by exposing dogs to an intense sample in order to elicit a startle or surprise <sup>6</sup>

Now, consider, "**learned irrelevance or pre-exposure effect.**" Animals over exposed to a stimuli or cue the dog inadvertently learns the conditioned stimuli is irrelevant because the exposure to the stimuli or cue has proven to be uneventful

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<sup>5</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, pp 34-35

<sup>6</sup> Handbook of Applied Dog Behavior and Training, Vol 1, Adaptation and Learning, Steven R. Lindsay, Iowa State Press 2000, Ch 6, p. 219

in the past.<sup>7</sup> For example, the dog continually hears the cue, "come" but has made the association with the cue that nothing eventful happens (no reinforcer was given,) thus the dog ceases "coming when called" because the stimuli (cue) meant nothing happens.

Add **counterconditioning** and **desensitization** to the equation and you'll begin to understand some general concepts in learning theory. Counterconditioning plays a role in learning or unlearning of reactions through counterconditioning. To resolve fears and other problems involving emotional components such as phobias, separation anxiety and aggressiveness, classical conditioning or counterconditioning may be required. Dogs never consciously choose to *feel*/fearful or anxious these emotions are simply automatic. While dogs may learn to cope with the distressful stimuli, they cannot control it except by moving out of the range of the stimuli. So for the emotional fear (phobias or aggression) it must be countered by a stronger and incompatible emotional response.<sup>8</sup> So counterconditioning basically involves one response elicits the other.

Now, a behavior that has manifested or has been reinforced will cease if you stop providing reinforcement. This is called **extinction**. When you put a behavior on extinction you might notice the dog becomes anxious and frustrated. As long as you don't reinforce the behavior it will decrease, however, usually before it does, there will be occasional bursts of responding called extinction bursts. So while new learning is occurring, they don't unlearn what they learned previously. For example, your dog paws at you to be pet, now you simply stop petting him, he will increase the frequency of pawing until he eventually stops because you are no longer petting him. Often the pawing becomes worse before the dog learns that pawing does not get reinforced.<sup>9</sup>

**Aversive control** of behavior produces emotional side-effects that influence the learning process and can have dramatic effects on the rate and extent of learning. If you make mistakes using aversive control you could traumatize or hurt your dog. It is your responsibility to understand and know what you or your training is "doing"

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<sup>7</sup> Handbook of Applied Dog Behavior and Training, Vol 1, Adaptation and Learning, Steven R. Lindsay, Iowa State Press 2000, Ch 6, p 213

<sup>8</sup> Handbook of Applied Dog Behavior and Training, Vol 1, Adaptation and Learning, Steven R. Lindsay, Iowa State Press 2000, Ch 6, p. 225

<sup>9</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, pp 103-104

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if you decide to use aversive consequences. Often, when using negative reinforcement the dog learns how to avoid or escape the consequences.<sup>10</sup>

**Flooding or response prevention** is actually an extinction procedure. Flooding involves presenting the stimuli in over abundance, creating such fright and discomfort that the fear extinguishes. More often, however, this type of treatment results in the fear becoming stronger. Sometimes it appears that this type of treatment works because it "looks like the fear disappeared" however, what generally occurs is the dog has become so exhausted it is physically unable to respond fearfully. This is not an ethical option.<sup>11</sup>

**Learned helplessness** is when the dog just simply "shuts down." Martin E. P. Seligman, discovered that dogs exposed to traumatic inescapable shock showed signs of neurotic elaboration and disintegration on cognitive, emotional and motivational levels of organization. While some dogs would jump to avoid the shock there were other dogs that simply lay down and whimper on a wire grid of pulsating shock. An outcome of Seligman's experiment was that inescapable shock had dramatic negative and interfering effects on post-shock learning. For learned helplessness to occur, the event must be both traumatic and outside the dog's control. Reversing helplessness was only possible if the dog was physically and forcibly placed over the barriers. Family dogs are exposed to unpredictable or uncontrolled punishment and are at risk of developing disturbances associated with the learned helplessness disorder. Traumatic punitive events involving excessive startle reactions or physical pain, which are poorly coordinated with identifiable avoidance cues or response options, meet the criteria of inescapable trauma. This is particularly evident when punishment takes place long after the event or when the punishment is applied in anger. Sadly, dogs exposed to excessive punishments will never reach their full potential but grow gradually callous to their owner's abusive treatment, appearing not to feel punishment by their lack of responsiveness to it. Dogs just simply learn to take punishment but not to benefit from it. The dog has fallen victim that prevents them from responding

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<sup>10</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, p. 108

<sup>11</sup> Excel-Erated Learning, Explaining (in plain English) How Dogs Learn and How Best to Teach Them, Pamela J. Reid, Ph.D, James & Kenneth Publishers, 1996, pp. 152-153

appropriately under compulsion, perhaps believing that any attempt to do will only fail.<sup>12</sup>

Last, remember, all stimuli are not created equal. Some dogs will not pay equal attention to all the stimuli present. So, have fun! In theory, if you taught your dog that certain pieces of equipment mean different things, your dog will learn to exhibit different taught behaviors dependent on equipment they wear. For example, a harness may mean to your dog that he can pull while leashed, a flat collar may mean he has to walk politely while leashed, and no collar might mean he can run and play. The key to training is predictability. As long as you are consistent in presenting stimulus that predicts particular responses, your dog will be well trained.

Finally, if your dog does something you like you want your dog to repeat that behavior and if your dog does an undesirable behavior, you don't want that behavior repeated. If you make learning fun you might teach your dog easier and it certainly will be more fun for the both of you.

Now you have a reasonable understanding how dog learn and you are in a position to determine what is best for your dog. Think about it and analyze your decision, training practices and procedures. Your dog will learn about stimuli, associations and consequences. You make the decision whether it is with physical force, compulsion, aversions, or a combination of positive and negative consequences.

**PJ Wangsness, CPDT is a Certified Professional Dog Trainer & Behavior Consultant, member of the Association of Companion Animal Behavior Counselors, member of the Association of Pet Dog Trainers, member of the International Animal Behavior Consultants, AKC CGC Evaluator and a trainer with Dog Training by PJ, located in Reno, NV. For additional information on group classes or behavior modification, please visit [www.dogtrainingbypj.com](http://www.dogtrainingbypj.com) or call 775-828-0748.**

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<sup>12</sup> Handbook of Applied Dog Behavior and Training, Vol 1, Adaptation and Learning, Steven R. Lindsay, Iowa State Press 2000, Ch 9, pp 342-344