

Dog Training Philosophy

By Jean Donaldson

There is perhaps no hotter topic in dog training than philosophy: how exactly does one get the job done. There are two ways to examine philosophy. One is to objectively observe what the trainer does, especially as far as the provision of consequences - events that occur after behavior - and then look at the result on the behavior's frequency. What is consequence X and does it make behavior Y increase or decrease in frequency? This is then classified into the quadrants of operant conditioning.

The other way to look at training philosophies is to record the rhetoric put up by the trainer herself. What does the dog trainer say she is doing? The final and most interesting part is to then compare what the trainer says she is doing with what she is actually doing.

Let's look at objective classification first. Many dog trainers don't think they are employing some subset of the four types of operant conditioning. But I contend that they inevitably are and that this is the most informative way to break down philosophy. The four quadrants in operant conditioning are:

1. positive reinforcement, the initiation of something, which increases the frequency of the behavior it immediately follows
2. negative punishment, the terminating of the same stuff as in #1, i.e. the removal of something, which decreases the frequency of the behavior it immediately follows
3. negative reinforcement, the terminating of something, which increases the frequency of the behavior that termination immediately follows
4. positive punishment, the initiation of the same stuff as in #3, i.e. the introduction of something, which decreases the frequency of the behavior it immediately follows.

For all animals, food, water and sex function as positive reinforcers. This is because if they don't find food and water reinforcing they die. You can also put your money on sex as a positive reinforcer because all organisms that we routinely train are descended from a nearly billion-year unbroken line that had sex at least once. That's a pretty good genetic track record so it's a reasonable inference that any given individual will have inherited the trait.

By extension, the termination of food, water and sex or the loss of opportunities to gain them will all function as negative punishers. My favorite negative punishment example comes from chicken camp, where dog trainers go to sharpen up their skills by training chickens. One of the tasks is a visual discrimination. A cardboard triangle, square and circle are put down and the chicken is reinforced for pecking the triangle. The chicken is highly motivated as it is on a closed economy (100% of the food ration is earned in training) so triangle pecking spikes dramatically in frequency. The training periods are usually two minutes long and there may be only half a dozen or so in one day. So each two minute opportunity to earn food is important to the chicken.

Here's the negative punishment part. If the chicken pecks the square or the circle, not only is it not reinforced with food, it's punished by removal of the triangle, let's say for thirty seconds. So for thirty seconds out of its two minute training period, the chicken can't peck the triangle, its only gateway to earning food reinforcement. What this results in is a chicken who is both hot to peck the triangle and extremely unlikely to touch the square or circle. Classic negative punishment.

Negative reinforcement is something many of us have experienced in the form of analgesia. Let's say you have a bad headache. You try painkiller brand one to no avail. Then brand two without luck. You then try brand three and it relieves the headache. If the next time you have a headache you reach for brand three right away, you have experienced negative reinforcement: the termination of the pain and the increase in the behavior - brand three ingestion - that accomplished that.

If you were careless walking down your basement stairs, banged your head and that is what gave you the headache in the first place, you might avoid those stairs in the future or avoid walking down them carelessly. This would be positive punishment. Note that the same aversive stimulus - the headache - functions as positive punishment when it starts and as negative reinforcement when it ends, just as the chicken's food can function as both positive reinforcement when it starts and negative punishment when it is removed.

In dog training, food, toys (for some dogs), access to other dogs or the owner (especially after an absence), patting and praise are all things that some trainers use as positive reinforcers by providing them to increase the frequency of behaviors like coming when called, sitting, walking nicely on leash, eliminating in the right place and chewing the right stuff. Some dog trainers also employ these things in their role as negative punishers by terminating them to decrease behaviors like playing roughly, jumping up and breaking stays. This represents one objective philosophical divide: the use of positive reinforcement and/or negative punishment. There are also mini divides with regard to reinforcer type: some trainers employ certain reinforcers but object to the use of others. For instance, praise and patting are used but not food. Other trainers use whatever works.

Aversives are things that signal to an animal imminent bodily injury or death - in other words, they're painful or scary. In dog training, the most common aversive stimuli are collar jerks, throwing items at the dog, shaking him, pinning him on his back, loud noises, hitting him, spraying him with water or with a chemical such as citronella, pinching his ear, and electric shock. Just as with the initiating and terminating of food, toys, play etc., these aversives can be started and stopped. And, as with some positive reinforcers, there is a range of potency from dog to dog. Some dogs are sensitive, finding a wide variety and intensity of attempted aversives painful or scary, while other dogs are much tougher.

So another divide among dog trainers is whether they employ aversives and, to a lesser degree, whether they employ them as positive punishers to decrease unwanted behavior, as negative reinforcers to increase desired behaviors (such as an ear-pinch retrieve) or both.

If you videotape a trainer in action and count the (hopefully well-timed) consequences she supplies and then note the effect of these on the frequency of responses, you can calculate which operant quadrants she uses and how often. A trainer might be 72% positive reinforcement and 28% negative punishment. Another trainer may be 55% positive punishment, 40% positive reinforcement and 5% negative reinforcement. And so on. This ratio may fluctuate depending on which dog is being trained to do (or not do) which behavior.

Now the fun part. If you then interview the trainer or read descriptions by the trainer of her training, you are unlikely to get percentages of operant quadrants utilized broken down by dog and/or behavior. Some trainers will deny they are using operant conditioning at all! Instead, the trainer might do one of three things:

1. Refer to dog cognitions and the effect on these of various interventions, most commonly their effect on an imagined social structure, e.g. "If you let the dog go through doorways ahead of you he will think he is the leader. Ensure you always go through first so he will see you as the leader."
2. Refer to the need to communicate to the dog in "dog language," either about social structures (see #1) or to be understood at all, e.g. "The mother dog expresses her disapproval to puppies by shaking them and growling, so mimic this by shaking your puppy and using a low, growly voice."
3. Employ language from psychotherapy models or mysticism, e.g. "Believing each dog is perfect at being that particular dog means every dog is treated as an individual. It is recognized that each is only capable of responding according to his or her specific and individual merits and limitations."

Of course, as none of these are verifiable, they could very well be true. So it could be that the trainer you observed on television is projecting energy. If the collar corrections are decreasing behavior, however, there is no doubt that he is employing positive punishment, perhaps as the sole "real" intervention or perhaps in conjunction with the energy projection.