

The Mannerly Dog
A Mannerly Dog is Easy to Love
Pasadena, Texas

A POISONED CUE IN PROGRESS?

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Is it OK to say, “No!” to our dogs, or use one of the many available substitutes like, “Ssstt!” or “Aaahh!” to make them stop what they’re doing? For me, the answer is, “No, thank you.”

I stopped using the word, “no,” many years ago when I learned the benefits of positive reinforcement training over punishment training; but I continue to learn new reasons for it to not be included in my training regimen.

A little dog named “Jet” visited me recently. He is a mixed breed about a year old, small and Schnauzer-like. He’s pretty fearful in demeanor, but has been trained to do lots of behaviors by his owner. These trained behaviors, like “sit” and “down” and a couple of tricks allow him a little more confidence and will serve him well in continuing to develop a more outgoing personality as he matures. Jet has also learned a couple of default behaviors that he can do when he’s fearful or stressed and he offers those readily when he’s a little stressed.

The first of Jet’s default behaviors is to sit and look at his owner’s face. Jet sits at his owner’s right side in right-heel position and turns his head upward and to his left to latch gaze with his owner; he can hold this pose for a long time, attesting to the reinforcing nature of the position.

Jet’s other default behavior is to lie down under a chair facing outward with full view of everything going on in the room. Jet’s owner explained that Jet has a favorite blanket and although he wasn’t directly or purposefully trained to target that blanket, it seems he was indirectly taught that because he targets the blanket to such a degree that his owner used it to train him to go under a chair. Jet originally was afraid to go under things like furniture. By placing the blanket, already associated with security and other good things, under tables and chairs, Jet learned to go first to the blanket under the piece of furniture and then under the furniture without the blanket. He will go under a chair both in response to the cue phrase, “Get in your house,” and also as a default when he feels stressed or needs a break. I complimented Jet’s owner, a budding trainer with very good observation skills and timing, on developing this behavior and pointed out how much it helps a fearful dog to have a default behavior or two to depend on when he needs to. Jet still enjoys lying on his favorite blanket, to the point that his owner had brought it along with them this day and it sat inside a plastic grocery bag on a chair in my training room.

During our visit this day, Jet’s owner used a forceful and well-timed, “No!” once when Jet put his front paws up on her leg. Jet responded seemingly appropriately by immediately putting

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all four feet on the floor. This was after Jet had loosened up a bit and was showing us some of his trained behaviors, and we were working with him on some new ones, using positive reinforcement in the form of bits of cheese. Later Jet's owner used a forceful, "Sssstt!" when Jet began to tear at the fabric of a toy. Jet dropped the toy and looked at his owner. Again, good timing, but you'll see why I question the response on her part. The third time she said, "Sssstt!" to Jet was a couple of hours into our visit; Jet put his front paws up on the chair that held the plastic bag with his blanket in it. Jet immediately hopped off, placing all four feet on the floor. At that point, I told her how great I thought her training with Jet looked and how I would suggest she stop using these negative words or No-Reward-Markers; they appear to be subtle punishments because they stop behavior. My reason was that she might want Jet to put his front paws up on something at a later time and thus might not want to attempt removing it from his repertoire of offerings. We had just been talking about some tricks he could learn and some beginning agility games he could do, so the feet-up-on-a-chair behavior might be something she'd want to reinforce rather than punish. We talked a bit about how I almost always tell clients about the technique of trading their puppies or new dogs treats for things they pick up with their mouths, even if the items are valuable shoes and such, because then they'll be working on developing the dogs' retrieving behavior rather than potentially inadvertently teaching the dog not to retrieve by scolding or punishing in other ways. She thanked me and said she had never thought about it that way before. I was pretty sure that her reason for saying, "No," was that she didn't want Jet to develop the behavior of jumping up on people or furniture. I encounter this regularly with clients who want to teach their dogs manners. I suggested that she re-direct Jet in an instance where he put his paws up on a chair if she didn't want him to do it, or better yet, pay closer attention to him and prevent it, all the while continuing to reinforce alternate behaviors that require four feet on the floor. He would then be less likely to randomly jump up on people and furniture, but more likely to offer the "paws up" behavior if she decided she wanted him to learn to touch a target that was up on something with his paw, or even to touch the contacts on agility obstacles with his front paws. She thought that was a good idea. All this was in keeping with my ingrained habit of simply not using the word, "No," or punishing any behavior – just in case you might want it later. But there's more. . .

Something about the visual scenario of my student scolding Jet while he was up on the chair caused it to continue rewinding and playing over and over again in my mind. I thought about it repeatedly through the evening and into the next morning, and a very vivid imaginary snapshot kept popping into my head: Jet is standing on his rear legs, front paws up on the chair with his head thrust forward – he was putting his nose on the bag containing his favorite blanket, the one used to teach the behavior of going under the chair, which he had previously been afraid to do but gained confidence and was able to do it once the precious blanket was employed as both a lure and reinforcement! Now I was seeing the use of a scolding, a No-Reward-Marker, in a whole new way. Oh, to have had a camera and the presence of mind to have taken an actual photo of that moment.

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I am pretty sure that Jet was punished for targeting his blanket in this instance. As I described earlier, Jet targets that blanket to such a degree that his owner used it to train him to go under a chair. Previously, targeting the blanket had been such a reinforcing behavior that it could be used to teach another behavior. Suddenly, we're dealing with a potential Poisoned Cue. The famous video by Dr. Jesus Rosales-Ruiz and his student showing the "Ven-Punir" dog jumped to the forefront of my mind.

The Poisoned Cue video produced by Dr. Rosales-Ruiz and Kelly Snider details an experiment showing that a behavior trained using punishment cannot be used to reinforce a new behavior being trained. The Premack Principle explains that a behavior more likely to occur can be used to reinforce a behavior less likely to occur. It is used commonly in dog training. A more colloquial description might be that the opportunity to perform an easy, less-demanding behavior can be used to reinforce a more-demanding behavior; i.e., the cue to retrieve something might reinforce a "stay" for a Golden Retriever. In the video, the researchers attempt to use a recall that was trained using force to reinforce a new behavior being trained. Even though no punishment had been administered for a long time and the recall was on cue and somewhat reliable, when the trainer called the dog after it performed the new behavior of targeting an object with its nose, the targeting behavior subsequently decreased instead of increasing in frequency. The dog initially approached the target object quickly, but after one trial of being called to the trainer after touching the target object, the dog was slow and its body language was cautious as it approached again. This development continued as the trainer continued having the dog touch the object and then calling it back, even though the dog received a treat when it came to the trainer. This showed that what they thought was a reinforcer, the cue to "Come," was actually a punisher. The researchers showed the opposite, too; the nose targeting behavior increased in frequency when reinforced using a behavior that had been trained using positive reinforcement. The point is that if an animal learns a particular cue indicates a positive consequence, we can use that cue as a reinforcer; but if a cue sometimes indicates a reinforcer will be coming and sometimes indicates a punishment will follow, it creates conflict for the dog; while the desired behavior may become fairly reliable, conflict will always be associated with it and lurk in the shadows. The dog may perform the trained behavior reliably, coming when called in order to possibly gain the reinforcer or possibly avoid the punisher, but there will be so much conflict involved that the behavior can never qualify as a "more frequently occurring" or "less demanding" behavior, able to be used to reinforce other new behaviors being trained.

Contingency: When a Cue Predicts a Reinforcer

When the dog perceives a cue that has been conditioned to mean an opportunity is now available for him to exhibit a behavior and receive a reinforcer, it's very clear to the dog. He can choose to do something other than exhibit the behavior, but he is not likely to because reinforcement history has caused this behavior to very frequently occur when the cue is presented. If he does choose to do something other than the cued behavior, he won't receive the reinforcer, so the consequence is contingent on the dog's behavior. In our example of Jet and his blanket, the reinforcement history has shown that touching the blanket when it's available to be

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touched very frequently results in good things happening for Jet. As long as the cue of the availability of the blanket to be touched remains salient and unpoisoned, it can be used as reinforcement for other behaviors being trained. For instance, Jet could retrieve an object and the blanket would appear for him to target; he could remain in a seated position while his trainer walks in a circle around him and the blanket would appear for him to target. Either of these scenarios would lead directly to Jet getting a treat or other primary reinforcer at the end of a chain of behaviors in which the appearance of the blanket reinforces a previous behavior and predicts a primary reinforcer.

Non-contingency: When a Cue Can Result in a Reinforcer or a Punisher

When a cue is poisoned, the consequence is no longer contingent upon the dog's behavior. When the dog perceives a cue that has been conditioned to mean an opportunity has opened up in which the dog might receive a reinforcer or a punishment might be administered, conflict results. Conflict is not likely to be reinforcing to the dog. When the dog does not perceive a consequence to be reinforcing, it's likely that the consequence is acting as a punisher. Consider Jet and his blanket once again: If Jet's behavior of touching his blanket had sometimes resulted in his trainer administering punishment and sometimes in his trainer administering reinforcement, the reinforcement history would be that sometimes touching the blanket gave the dog something good and sometimes the same behavior gave him something bad. Thus, presentation of the blanket is a poisoned cue. In teaching Jet a retrieve, if he picks up an object in his mouth and the blanket is presented, it's not much of a reinforcer because it results in internal or mental conflict. The retrieve will develop more quickly if the trainer gives him a treat or provides some other result to reinforce the behavior. He may still get on the blanket when cued to do so, and may sometimes choose to get on the blanket on his own. Behaviors can be trained to a high level of reliability using punishment. However, the opportunity to touch or get on the blanket will not reinforce a previous behavior if it is truly poisoned as a cue. The Poisoned Cue video shows this very clearly.

What About Training with Reinforcers and Polishing with Punishers?

In this era of blooming positive reinforcement based dog training, many trainers have taken the habit of using reinforcers to teach behaviors and then "polishing" fluent behaviors by punishing incorrect responses. I view this as a holdover from force training, or punishment-based training, in which a common belief system extolls the idea that a dog must be punished to eliminate any lingering possibility that he will respond incorrectly to a cue during a performance in the ring, during a critical job like search and rescue or police dog work, or the like. A commonly used process is to train the dog to fluency with reinforcement and then put the dog in a position in which he is likely to respond incorrectly and physically punish him with a shock collar, mechanical collar jerk, or otherwise when he does. The belief is that this is the final touch required to create reliability – just to let the dog know what will happen if he chooses incorrectly. Scientific research does not support this way of thinking. Experimentation with poisoned cues shows that this final "polishing" effort may just take a highly reliable behavior and cause it to deteriorate. Again, perhaps the behavior itself continues to be performed with fluency, but behaviors intended to follow it may fail.

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Effects of Using Both Reinforcement and Punishment to Train

Could this be what causes dogs trained to a very high level to “suddenly” fall apart after many obedience competitions? Could it be a cause of behaviors we label “superstitious” that develop suddenly? Consider the dog competing in Utility Dog classes in AKC Obedience. The exercise requires the handler to cue the dog to go out to the pile of scent articles. The dog is to choose the one with the newest and warmest scent of his handler on it, pick it up and bring it back to his handler, sit in front of the handler while holding the object and release the article to her when cued to do so. A colleague described a scenario in an obedience ring in which the cue was given, the dog went quickly out to the pile and chose the correct article, carried it halfway back to the handler only to return to the pile, place the article back in it, search all the articles again and choose the same one. He began carrying it back to the handler and approached more and more slowly as he came closer, finally sitting in front to release the article to her. For this dog, did returning to his handler provide conflict? From this brief description, it seems that going to the pile, searching for the scented article, and picking it up are all reinforcing behaviors for him, but returning to his handler with the article in his mouth may be conflicted. The handler indicated to my colleague that this behavior was new, having developed over the course of this particular weekend of shows. What happened? What did the trainer change? Is it possible that in attempting to polish up the scent article exercise, this handler used punishment when the dog brought the wrong article? Perhaps the dog had needed more training to choose the scented article and the trainer instead punished the dog for bringing back the wrong one. Of course, this is speculation since I don’t know the history of this performance team’s work; but exploring incidents like this help me to become better at analyzing behavior so that my training continues to improve. In the obedience ring, each exercise can reinforce the previous one, creating a chain of behaviors ending with a primary reinforcement and a dog ready to perform again the next time. I consider this a valuable scenario and like to preserve it by not taking the risk of punishing behaviors.

Many other situations deserve further behavioral analysis with consideration of the poisoned cue, like dogs who take off in the agility ring, running crazy, jumping random jumps and not returning to their handlers when called. Similar things happen in the obedience ring, too – loose dogs doing everything but return to their handlers.

Conclusion

I’ve always known that punishing a behavior may come with more baggage than we may realize at the time, but I’ve always thought of it in the context of, “Why punish this when we may want the dog to do it later?” It took Dr. Rosales-Ruiz’s presentation and video to start the wheels in my mind turning to figure out that by punishing one behavior, we may be damaging a whole chain of behaviors, or worse a wide variety of behaviors if a single behavior has been implemented in training a lot of different things. When I saw this effect happening before my eyes, it brought everything together for me. If a dog has a favorite toy, blanket, or behavior, it’s likely we’ll use that to reinforce many different behaviors during his life. In Jet’s case, the blanket is a powerful item, associated with lots of good things and at least one other strong

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behavior – going under a chair on cue. It's also associated with going under a chair at times when his emotional state is fragile. Poisoning the blanket as a cue, as a reinforcer, will create conflict associated with that item. Was Jet stressed when he placed his front paws on the chair and his nose on the bag containing the blanket? Was he reaching for the blanket because he associates it with security? Will he now have to come up with another default behavior to use when he's feeling insecure? Will that new default behavior be something we deem appropriate? When we're dealing with fear and insecurity, emotional responses, we're opening up a whole new realm of possible damage to be done by punishing something we don't realize we're punishing.