



Adverse Effects of Punishment

PUNISHMENT CAN BE EFFECTIVE in specific cases, but it must be used carefully due to the difficulties of performing it properly compared to positive reinforcement and due to its potential adverse effects. The following is a description of the difficulties and adverse effects that one should be aware of when using punishment (aversives).

1. IT'S DIFFICULT TO TIME PUNISHMENT CORRECTLY. In order for the animal to understand what it is doing wrong, the punishment must be timed to occur: while the behavior is occurring, within 1 second, or at least before the next behavior occurs.

2. PUNISHMENT CAN STRENGTHEN THE UNDESIRABLE BEHAVIOR. In order for punishment to affect a lasting change, it should occur every time the undesirable behavior occurs. If the animal is not punished every time, then the times it is not being punished, it is actually receiving a reward. Additionally these rewards are on a variable rate of reinforcement (i.e. inconsistent punishment), which may actually strengthen the undesirable behavior. Variable rate of reinforcement is a powerful reinforcement schedule that is used to maintain behaviors trained with positive reinforcement. The animals know the reward will occur eventually, but since they don't know which time the reward will come, they keep performing the behavior with the expectation of an eventual reward. Thus the animals become like gamblers playing the slot machines.

3. THE INTENSITY OF THE PUNISHMENT MUST BE HIGH ENOUGH. For punishment to be effective, it must be strong enough the first time. If the intensity is not high enough, the animal may get used to it (habituate), so that the same intensity no longer works. Then, the owner must escalate the intensity in order for the punishment to be effective. No matter when it is administered, punishment may cause physical harm or fear when used at the required intensity for learning to occur.

4. PUNISHMENT MAY CAUSE PHYSICAL HARM WHEN ADMINISTERED AT HIGH INTENSITY. Many punishments can cause physical harm to the animal. Choke chains can damage the trachea, especially in the many dogs with collapsing tracheas or hypoplastic tracheas. They can also occasionally cause Horner's syndrome (damage to the nerve to the eye). Some dogs, especially brachycephalic breeds, have developed sudden life-threatening pulmonary edema, possibly due to the sudden upper airway obstruction leading

to a rapid swing in intrathoracic pressure. And dogs prone to glaucoma may be more susceptible to the disorder since pressure by collars around the neck can increase intraocular pressure.

5. REGARDLESS OF THE STRENGTH, PUNISHMENT CAN CAUSE SOME INDIVIDUALS TO BECOME EXTREMELY FEARFUL, AND THIS FEAR CAN GENERALIZE TO OTHER CONTEXTS. Some punishments may not cause physical harm and may not seem severe, but they can cause the animal to become fearful, and this fear may generalize to other contexts. For instance, some dogs on which the citronella or electronic collar are used with a preceding tone may react fearfully to alarm clocks, smoke detectors, or egg timers.

6. PUNISHMENT CAN FACILITATE OR EVEN CAUSE AGGRESSIVE BEHAVIOR. Punishment has been shown to increase the likelihood of aggressive behavior in many species. Animals in which the punishment does not immediately suppress the behavior may escalate in their efforts to avoid the punishment to the point where they become aggressive. Those who already show aggressive behavior may exhibit more intense and injurious aggressive behaviors.

7. PUNISHMENT CAN SUPPRESS BEHAVIORS, INCLUDING THOSE BEHAVIORS THAT WARN THAT A BITE MAY OCCUR. When used effectively, punishment can suppress the behavior of fearful or aggressive animals, but it may not change the association underlying the behavior. Thus, it may not address the underlying problem. For instance, if the

animal is aggressive due to fear, then the use of force to stop the fearful reactions will make the dog more fearful while at the same time suppressing or masking the outward signs of fear. Once it can no longer suppress its fear, the animal may suddenly act with heightened aggression and with fewer warning signs of impending aggression. In other words, it may now attack with no warning.

8. PUNISHMENT CAN LEAD TO A BAD ASSOCIATION. Regardless of the strength of the punishment, punishment can cause animals to develop a negative association with the person implementing it or the environment in which the punishment is used. For instance, when punishment is used for training dogs to come when called, the dogs may learn to come at a trot or walk (or cower while approaching) rather than returning to the owners at a fast run as if they enjoy returning to their owners. Or when punishment is used during obedience competition training or agility training for competitions, dogs may perform the exercises with lack of enthusiasm. This negative association is particularly clear when the dog immediately becomes energetic once the exercise is over and it is allowed to play. Pets are not the only ones who can develop a negative association from this process. Owners may develop a negative association, too. When owners use punishment, they are often angry, thus the expression of force is reinforcing to them because it temporarily decreases their anger. They may develop a habit of frequently becoming angry with their pet because it "misbehaves" in spite of their punishment. This may damage the bond with their pet.

9. PUNISHMENT DOES NOT TEACH MORE APPROPRIATE BEHAVIORS. One of the most important problems with punishment is that it does not address the fact that the undesirable behavior occurs because it has been reinforced— either intentionally or unintentionally. The owner may punish the bad behavior some of the time, while inadvertently reinforcing the bad behavior at other times. From the dog's view, the owner is inconsistent and unpredictably forceful or coercive. These characteristics can hinder the pet/human bond. A more appropriate approach to problem solving is to focus on reinforcing a more appropriate behavior. Owners should determine what's reinforcing the undesirable behavior, remove that reinforcement, and reinforce an alternate appropriate behavior instead. This leads to a better understanding of why animals behave as they do and leads to a better relationship with the animal.

