AVSAB

AVSAB Position Statement
The Use of Punishment for Behavior Modification in Animals

American Veterinary Society of Animal Behavior
www.AVSABonline.org

AVSAB's position is that punishment[1] (e.g. choke chains, pinch collars, and electronic collars) should not be used as a first-line or early-use treatment for behavior problems. This is due to the potential adverse effects which include but are not limited to: inhibition of learning, increased fear-related and aggressive behaviors, and injury to animals and people interacting with animals.[2]

AVSAB recommends that training should focus on reinforcing desired behaviors, removing the reinforcer for inappropriate behaviors, and addressing the emotional state and environmental conditions driving the undesirable behavior. This approach promotes a better understanding of the pet's behavior and better awareness of how humans may have inadvertently contributed to the development of the undesirable behavior. Punishment should only be used when the above approach has failed despite an adequate effort as part of a larger training or behavior modification program that incorporates reinforcement of appropriate behaviors and works to change the underlying cause of the problem behavior.

AVSAB recognizes that both positive reinforcement and punishment require significant skill, effort, and awareness on the owner's part. Both must be applied as the animal is performing the target behavior or within one second of the behavior to be most effective. Additionally, both work best when applied every time the behavior occurs so that the animal is not inadvertently rewarded for undesirable behavior during the modification process. If punishment is added to a modification plan, it should only be used if the owner has first demonstrated reasonable ability and consistency at rewarding appropriate behaviors and removing the reward for bad behavior. If punishment is suggested as part of a complete behavior modification plan, owners should not begin using it until they have ensured that the person helping them is able to articulate the major adverse effects of punishment, judge when these effects are occurring over the short term and long term, and can explain how they will reverse the adverse effects if they occur.

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[1] *For the scientific definition of punishment refer to p. 3*

[2] *Refer to Adverse Effects of Punishment on p. 4*

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Guidelines on the Use of Punishment for Dealing with Behavior Problems in Animals

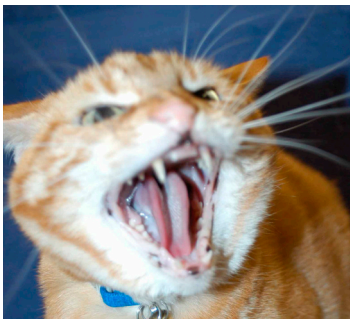
PUNISHMENT, OR THE USE OF AVERSIVES, force, coercion, or physical corrections in order to change an animal's behavior (For actual scientific terminology, refer to p. 3: *Definitions*), is commonly used by the general pet owner and by many dog trainers. Some punishments are seemingly innocuous, such as squirting a cat with water when it jumps on a counter or shouting "no" when your pet misbehaves. Other punishments, such as jerking a choke chain or pinch collar to stop a dog from pulling, throwing a dog down on its back in an alpha roll when it nips, tightening a collar around a dog's neck and cutting off its air supply until it submits, or using an electronic collar to stop a dog from barking are more severe.

Punishment is frequently a first-line or an early-use tool by both the general public and traditional dog trainers. While punishment can be very effective in some specific contexts depending on the individual animal, it can be associated with many serious adverse effects. (Refer to p. 4: *Adverse Effects of Punishment*). These adverse effects can put the safety of the pet and the person administering the punishment at risk. Because of these safety risks, people recommending these techniques are taking a liability risk. Thus, just as anti-cancer drugs can be highly effective in treating specific diseases in individuals but can cause serious side-effects in those same individuals or when used inappropriately, punishment is fraught with difficulties.

The adverse effects of punishment and the difficulties in administering punishment effectively have been well documented,[1] especially in the early 1960s when such experiments were still allowed. For instance, if the punishment is not strong enough, the animal may habituate or get used to it, so that the owner needs to escalate the intensity.[2,3] On the other hand, when the punishment is more intense, it can cause physical injury. For instance, electronic anti-bark collars can cause burn marks on dogs. Choke chains can damage the trachea, increase intraocular pressure in dogs thus potentially worsening or contributing to glaucoma in susceptible breeds,[4] cause sudden collapse from non-cardiogenic pulmonary edema (water in the lungs) due to temporary upper airway obstruction, and cause nerve damage.[5] The risk of damage is greater when the choke chain sits high on the dog's neck.

Even when punishment seems mild, in order to be effective it often must elicit a strong fear response, and this fear response can generalize to things that sound or look similar to the punishment. Punishment has also been shown to elicit aggressive behavior in many species of animals.[6] Thus, using punishment can put the person administering it or any person near the animal at risk of being bitten or attacked.

Punishment can suppress aggressive and fearful behavior when used effectively, but it may not change the underlying cause of the behavior. For instance, if the animal behaves aggressively due to fear, then the use of force to stop the fearful reactions will make the animal more fearful while at the same time suppressing or masking the outward signs of fear; (e.g., a threat display/growling). As a result, if the animal faces a situation where it is extremely fearful, it may suddenly act with heightened aggression and with fewer warning signs. In other words, it may now attack more aggressively or with no warning, making it much more dangerous.



The standard of care for veterinarians specializing in behavior is that punishment is not used as a first-line or early-use treatment for behavior problems.

Perhaps one of the most compelling reasons to use punishment sparingly is that punishment fails to address the fact that the bad behavior is occurring because it has somehow been reinforced—either intentionally or unintentionally. That is, owners tend to punish bad behaviors some of the time while inadvertently rewarding these same behaviors at other times. In this way, they accidentally set their pets up to receive punishment repeatedly by sometimes unintentionally rewarding the bad behavior, which is how the behavior was learned in the first place. This inconsistency is confusing to the animal and can cause frustration or anxiety. Punishment also fails to tell the animal what it should be performing instead. Without an alternative appropriate behavior the animal may have no option but to perform the undesired behavior. A more appropriate approach to problem solving is to determine what is reinforcing the undesirable behavior, remove that reward, and reinforce an alternate desirable behavior instead. For instance, dogs jump to greet people in order to get their attention. Owners usually provide attention by talking or yelling, pushing them down, or otherwise touching them. A better solution would be to remove attention by standing silently and completely still and then to immediately reward with attention or treats once the dog sits. This learning-based approach leads to a better understanding of our pets and consequently to a better human-pet relationship.

The standard of care for veterinarians specializing in behavior is that punishment is not to be used as a first-line or early-use treatment for behavior problems. Consequently, the AVSAB urges that veterinarians in general practice follow suit. Additionally punishment should only be used when animal owners are made aware of the possible adverse effects. The AVSAB recommends that owners working with trainers who use punishment as a form of behavior modification in animals choose only those trainers who, without prompting:

1) Can and do articulate the most serious adverse effects associated with punishment

2) Are capable of judging when these adverse effects are occurring over the short and/or long term

3) Can explain how they would attempt to reverse any adverse effects if or when they occur.

Definitions

For the purpose of Position Statement and Guidelines on the *Use of Punishment for Dealing with Animal Behavior Problems,* we have defined punishment as the use of force, coercion, or aversives to modify behavior because this is what the general public understands punishment to be. The scientific definition of punishment is slightly different. The scientific definitions are important because pet product companies using punishment often incorrectly call it negative reinforcement in order to avoid the negative connotation of the word "punishment."

PUNISHMENT is anything that decreases the likelihood a behavior will occur again.

REINFORCEMENT is anything that increases the likelihood a behavior will occur again.

Both punishment and reinforcement can either be positive or negative, meaning they can have something added or removed.

POSITIVE REINFORCEMENT: by adding something the animal wants, you increase the likelihood the behavior will occur again.

For instance, if a cat approaches your house and you put food out for it, it's more likely to visit your house again.

NEGATIVE REINFORCEMENT: by removing something aversive, you increase the likelihood a behavior will occur again.

For instance, traditional trainers may teach dogs to fetch using a "force retrieve" method. In this method, the handler says "fetch" and then pinches the dog's ear until it yelps. As soon as the dog opens its mouth to yelp, the handler puts a wooden dumbbell in the mouth and stops the pinch. By doing so, he increases the likelihood that the dog will open its mouth and grab the dumbbell when he says "fetch" the next time. Note that the goal of this training is to teach the dog to grab the dumbbell.

POSITIVE PUNISHMENT: by adding something the animal dislikes or finds aversive, you decrease the likelihood the behavior will occur again.

For instance, a common method for teaching dogs to stop jumping is to knee the dog in the chest when it jumps on you. Doing so will decrease the likelihood the dog will jump again. The goal of the technique is to stop a behavior from occurring, whereas the goal of negative reinforcement is to increase a behavior. Another example of positive punishment is the use of ultrasonic trainers to stop dogs from barking. When the dog barks, the device emits an ultrasonic tone that is theoretically loud enough to disturb the dog, so the dog stops barking.

NEGATIVE PUNISHMENT: by removing something the dog wants, you decrease the likelihood that behavior will occur again.

For instance, if your cat meows for attention, removing your attention until the cat is quiet will decrease the likelihood that she will continue meowing to get your attention. Or, if your dog jumps on you to greet you, standing quietly and completely still, so it's clear you are ignoring him, will decrease the jumping behavior.

POSITIVE PUNISHMENT AND NEGATIVE REINFORCEMENT INVOLVE AVERSIVES

Of these four categories, both positive punishment and negative reinforcement fall under what the public thinks of as punishment. These are the two categories that involve the use of aversives, force, coercion, or physical corrections to modify behavior. What's the difference between the two? Many companies refer to their products as negative reinforcement products when they are actually punishment products because their goal is to ***stop a behavior by adding something the animal dislikes***. For instance, ultrasonic anti-bark devices are punishment devices because their goal is to stop barking. Whether a technique is punishment or reinforcement depends on whether the predominant goal of the technique is to stop a behavior (punishment) or to increase it (reinforcement). In the case of negative reinforcement, it's important that the aversive should stop as soon as the animal starts behaving appropriately.

VETERINARY BEHAVIORISTS AND PH.D. BEHAVIORISTS FOCUS ON POSITIVE REINFORCEMENT COMBINED WITH NEGATIVE PUNISHMENT.

Of these four categories, the two most used by veterinary behaviorists and Ph.D. behaviorists are negative punishment combined with positive reinforcement. That is, they remove the rewards for the undesirable behavior and then reward the appropriate behavior. For instance, if a dog greets by jumping, they remove their attention (negative punishment) when the dog jumps, and when the dog sits or stands calmly, they reward the dog (positive reinforcement).

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FURTHER READING

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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 UNDESIRED 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.