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Using Animal Behavioral Psychology and Operant Conditioning in Dog Photography

Photographers typically have specific knowledge about the subject in front of their camera. For example, a photographer of newborns will know the needs and handling of newborn babies. Photographers who photograph high school seniors will know about posing teenage bodies and know about current fads and popular clothing styles. Wedding photographers are familiar with different religious and ethnic traditions. Likewise, a pet photographer can use the behavioral psychology of dogs to better understand their canine subjects to get the desired images. This paper will explore what behaviorists and others have learned over time about dogs, dog behavior, dog psychology, and operant conditioning, and how this knowledge can be applied in practical ways before and during a photography session where the subjects are dogs.

Dog History

Primitive cave drawings of animals show that the importance of animals in human lives stretches back to the earliest humans (Burch and Bailey 11). Dog domestication began somewhere between 15 and 30 thousand years ago when humans and wolves began to see how they could benefit from each other (Collins 14-15). Humans had started to change from hunting and gathering to survive and began living in settlements (Horowitz 38). Along with the settlements came garbage dumps that usually contained food waste. Lesser aggressive wolves scavenged food from the dumps (Horowitz 39). The wolves that were the least fearful adapted and reproduced more than the others (Yin 12-13). As the wolves became more accustomed to being around people, the people began to interact with them. A symbiotic relationship developed

between people and wolves as people realized the animals could be useful. People started to use these animals for many different kinds of work. The animals could be used for guarding livestock, herding livestock, hunting, and many other things that helped their human caretakers. Through natural selection and intentional breeding, wolves evolved into the dogs we know today.

Once in the world of humans, dogs developed skills that would serve them well in their relationships with them. Somewhere between 127 and 116 BC, a Roman farmer recorded tips on training dogs used in herding. In 943 AD, a Welsh king wrote about herding dogs and the tasks they could accomplish (Burch and Bailey 11). Dogs and humans have been able to work well together for thousands of years.

Researchers speculate that dogs first began to interact with humans by making direct eye contact. Over time, the dogs learned that certain behaviors got humans to give them food. Today, dogs can sense our moods, anticipate our needs, and respond to our words and gestures (Horowitz 140). Dogs are happy when the people around them are happy. Dogs are so in tune with us that they can follow where we look or follow our pointing finger. Dogs will look at where a person is pointing (Grandin, Human 25). Other animals will look at the end of the person's pointing finger.

People communicate with words, emotions, and body language. Dogs communicate through body position, facial expression, and sounds (Kilcommons 22). A dog's body movement is not random. The intentional body movement might express how they feel or is an attempt to communicate with a person (Aloff 213). If you watch a dog long enough, you will see that this communication has a purpose (Handelman 1797). Messages from dogs might come in the form

of the dog's body posture, movement in the dog's ears, tail, or any number of facial expressions (Alderton 89).

Dogs seem to understand that they need to see a person's face and eyes to communicate. If a person is not looking at the dog, they may get the person's attention by pawing at the person or barking (Hare 140). Dogs are also very skilled at perceiving minute changes in a person's body and assume that every tiny movement has meaning (McConnell 2). Understanding how a dog communicates with people is particularly important for pet photographers, who must understand dogs in general and understand what the dog's behavior means in the context of a photographic session.

How to Prepare for the Dog Photography Session

Dogs were initially bred for specific purposes, and it is important to understand the breed-specific characteristics of the dog the photographer will be photographing (Burch and Bailey 112). A photographer can research the breed of a dog before the photo session. This understanding will help the photographer to know what behaviors are normal and natural for the particular breed.

Getting to know the dog before a photo session will make the photo session go more smoothly. This can take the form of an in-person consultation with the owner and the dog. The consultation provides an opportunity for the photographer to learn about the dog and the owner through observation and by talking with the owner about their dog. Observations made during the consultation appointment can provide information about whether the dog is tense or relaxed, if the dog is curious about new environments and people, how long it takes for the dog to settle in, or if the dog is skittish about anything. The photographer can pick up a lot of information about the dog with a quick look once they know what to look for (Collins 128-129). The

consultation is also a time to talk with the owner about their relationship with their dog and manage the owner's expectations for the photo session. The photographer can get many good ideas for the photo session during the conversation with the owner. Watching the dog's behavior and the dog's interactions with their owner at the consultation is an essential first step to ensure the photo session goes well.

Dog Behaviors

Just like a children's photographer knows how to talk and interact with children, so must a dog photographer understand how dogs express themselves and be able to communicate back to the dog. Fortunately, there is a lot of research in this area. Behaviorists have been studying dog behavior for decades (Burch and Bailey 14-15). Photographers can put that information to use in understanding dog body movement since that is how dogs communicate. Some dog movements are easier to describe in human terms to help us identify them more readily. Describing a dog as looking *worried* is easily understood by people. While we do not know if the dog is capable of *being* worried, the description makes the behavior easier to identify.

Dogs are visual and use body parts such as the tail, eyes, ears, mouth, tongue, and paws to express emotion and communicate with people (McConnell 3). While the tail is not the most important indicator, it is the one most people are familiar with. When the dog is under stress or is frightened, the tail is tucked under the body. Generally, the dog will be exhibiting additional signs of fear or stress, but this one sign is the most noticeable (Dibra 125). Tails can also be held high when the dog is alert and held low when the dog is submissive. A neutral tail position is a good place to be as the dog's emotions are not at either extreme. Consider a neutral tail as a baseline when comparing it to other tail positions.

While the dog's tail expresses some emotion, the dog's face will express even more. Dogs will use every part of their heads to express emotion (Dibra, 108). The facial muscles will tense, and the skin will appear taut when the dog is alert or stressed and appear relaxed when the dog is content (Alderton 39).

Whale eye occurs when the dog is stressed. The skin across the top of their head is so taut that it stretches the eyelids away from the eye, showing the whites of the dog's eyes. Whale eye is usually seen in conjunction with a facial expression best described as a *worrying* appearance. However, the whites of the eye may also appear when the dog looks to the extreme of one side or another (Handleman 1423). In that case, the wide eyes are not accompanied by the *worried* facial expression and are not a sign of discomfort. The context is important when judging the cause of the behavior.

Dogs also use the muscles on their heads to change the position of their ears. All dogs have a neutral position for their ears, whether they are prick (like two triangles on the dog's head) or floppy and hanging down. Any ear position change should be compared to neutral. When a dog is stressed or frightened, the ears will be flattened back against the dog's skull (Handelman 1370). When a dog is curious about a noise or object, the ears will usually be erect. Even floppy ears can be erect where the ear flap joins the skull. Most photographers will work to get the look of attention created by more erect ears.

A dog's mouth and tongue are other parts of a dog's face that show a range of expressions. Tongue flicks and lip licking both show stress. Tongue flicks are when the tip of the tongue briefly sticks out of the dog's mouth. Lip licking is when the dog's tongue is more fully extended, and the dog licks their lips or their nose (Aloff 990). If these behaviors begin to occur

during the photo session, the photographer should identify the source of the discomfort and intervene to reduce the dog's stress.

The tongue is most noticeable when the dog is panting excessively. Panting can be a sign that the dog is overheated. Dogs cool themselves off by sweating on the bottom of their paws and panting. Dogs are unable to sweat through any other part of their bodies. If the dog was running around before the photo session, the dog will likely be panting heavily and need time to cool off. However, panting may not be from intense activity; it could also be because the dog is stressed (Collins 78). When a dog pants heavily, the tongue hangs out of the dog's mouth and can be quite long. The end of the dog's tongue hanging out appears to be wider than the part of the tongue inside the dog's open mouth and is called a *spatulate tongue*. A stressed dog can pant heavily and have a spatulate tongue, and a dog that has been running can also have a spatulate tongue. The difference is that the hot and panting dog's tongue will be lolling out of the dog's mouth. In contrast, the stressed dog's tongue muscles will be tenser, although both tongues will have the same spatulate shape (Aloff 494). A pet photographer needs to know how to tell the difference between a dog cooling off and a stressed dog and address the situation if needed.

Yawning is another behavior that may indicate that a dog is experiencing stress. Dogs yawn when they are sleepy, just like people do, but they also yawn when they are uncomfortable. The yawn of a stressed dog may be a wider than usual open mouth, accompanied by the ears drawn back and perhaps very wide eyes (Aloff 1107). The best way to tell the difference between a sleepy dog and a dog under stress is to look at the frequency of the yawning. The more frequent the yawning, the more important it is to look for additional signs of discomfort.

The position of a dog's paws when the dog is sitting can also communicate discomfort. A dog who sits with one front paw slightly raised is under stress (Coren 147). Many people think a

raised paw is an adorable behavior, especially from little dogs. However, the raised paw means the dog is asking for the uncomfortable situation to stop. The pet photographer should determine the cause of the dog's discomfort and intervene.

A dog experiencing stress might also look away from whatever causes the discomfort or hide wherever they can to escape the situation. Owners may interpret the behavior as the dog being curious or exploring, which is an inaccurate assumption. The pet photographer should recognize that the dog is avoiding and determine what is making the dog uncomfortable. Again, the photographer should look for other stress behaviors combined with looking away or hiding to determine the best intervention (Aloff 865).

Displacement behaviors are also indicators of a dog's stress. Displacement behaviors are behaviors that seem to be out of place in the setting (Handelman 1921). A dog may show these behaviors when stressed and do something familiar to distract themselves from whatever is causing them discomfort. These behaviors might include sniffing intently at something on the ground, scratching at something on the ground, or the dog checking his genitals (Handleman 1924). Sniffing can also be a calming behavior. A dog uses a calming behavior when under stress, which calms the dog and signals to those around them to calm down. A good shake is also a calming behavior. When dogs twist their bodies into a vigorous shake, they calm themselves and hit the reset switch.

In contrast to the stress behaviors, dogs can also display happy behaviors. Dogs do not need to be wiggling all over with a smile on their face to show they are happy. Sometimes dogs are just quiet and content. Their eyes are soft and maybe partially closed. Their body is not tense, and their ears are relaxed (Aloff 2171). Some happy dogs will want to play and will signal their willingness to play with a body position called a *play bow*. In a play bow position, the dog's rear

end is up in the air while the front part of the dog is lower with the elbows touching the ground. The dog's ears are erect, and the mouth is relaxed, which is a sign to both people and other dogs that the dog wants to play. At times, two dogs playing might seem to be playing roughly, but close observation will reveal that each dog will stop for an instant and do another brief play bow to communicate to the other dog that they are just playing (Aloff 3211). A play bow is a behavior a photographer wants to see from a dog, especially when the dog is getting acclimated to the photo session setting.

Remember, while humans communicate with spoken words, dogs communicate with body postures. If photographers are not paying close attention to the dog's messages, they may miss something important. At the same time they are watching the dog; the dog is watching them and interpreting their every move (Yin 66). Miscommunication is sure to result if the photographers do not pay attention to the dog's movements, and at the same time, pay attention to their own movements and how they might be unintentionally responding. Dogs give quick, subtle movements and signals that are rich with information. Photographers just need to focus their attention on them (McConnell 8).

Context is everything when assessing dog behaviors. Dogs may exhibit several body movements to suggest they are uncomfortable. Some signals will be subtle, and a pet photographer must be alert to catch them. Many of the behaviors will be in combination with other behaviors. If the behaviors are stress-related, the stressor must be addressed so the dog can be more relaxed during the photo session. The following are some general suggestions to use when working with the dog to set them at ease.

Give the dog space. Do not crowd the dog. Avoid leaning or reaching over the dog's head or doing any other movement that makes the dog feel confined. Always be aware of how the dog

communicates with you with their body language (Yin 25). The photographer can encourage the dog to do what poses they want by using food or toys to coax them into position. Do not force a dog to do something they do not want to do. Give the dog a break for a little while by giving them a chance to do something they like to do, such as playing with a toy, chasing a ball, or going for a quick run. The photographer needs to apply their knowledge of dog psychology in recognizing a dog's stress behavior early enough to relieve the tension the dog feels.

Operant Conditioning

Understanding dog behavior is essential to the success of a photo session. Also essential to photo session success is an understanding of dog handling and how dogs learn. A photographer does not need to be a dog trainer, but the techniques used to train dogs can be useful in a photographic setting. Some techniques the photographer may be already using without realizing the processes have names. The most common techniques use *operant conditioning*. Operant conditioning will make the photo session flow better and is critical in dealing with flash issues in the studio setting. A little background on the techniques will help to understand the process.

Many people have heard of Ivan Pavlov and his drooling dogs in the 1800s (Grandin, Human 25). His studies called the behaviors *Classical Conditioning* and described involuntary behaviors like salivating when dinner was being prepared (Burch and Bailey xix). In the early 1900s, Edward Lee Thorndike worked with voluntary behaviors and got the idea for rewarding desired voluntary behaviors. That is, if you do something that brings a reward, you are more likely to do it again (Burch and Bailey 4). Later in the 1930s, it was B. F. Skinner who put that idea to work with rats to get them to perform a particular behavior to get a food reward. He called the process *Operant Conditioning* (Hare 227). The concept is that behavior reinforced

with food or other motivators is strengthened or more likely to recur (Burch and Bailey 27). In the 1980s, Karen Pryor worked with more diverse animals and refined the operant conditioning process using many different kinds of positive reinforcements (rewards). The idea behind her studies was that when an animal such as a dog performed the desired behavior, the behavior was immediately *positively reinforced*. Hence, the dog is more likely to repeat the behavior in the future. The *reinforcer* (reward) must be something of very high value to the animal, such as petting or praise, a favorite treat, a ball, or a favorite toy. The higher the value of the reward to the dog, the more likely they will be to repeat the behavior. Pryor also introduced secondary reinforcers (clickers) in her training to mark the exact moment of the desired behavior (Grandin, In Translation 322).

Food is usually a high-value reinforcer (reward) for dogs and is used in the smallest amount possible. A piece of food the size of a pea is recommended. This ensures the dog does not get full too soon (Pryor 28). When a dog has performed especially well, a *jackpot* reward is used (Pryor 29). The jackpot reward is in the form of multiple small pieces of food delivered sequentially rather than one larger piece of food. Dogs will feel they are getting a more significant reward with multiple small pieces.

Positive reinforcements can be delivered on a fixed schedule (a reward every time) or a variable schedule (intermittent rewards). When dogs are first learning a behavior, reinforcements should be given every time. After the dog knows the desired behavior, variable reinforcements can be used (Yin 58). Variable positive reinforcements work because the dog does not know from one moment to the next if they will get food or not, so they keep doing the desired behavior (Pryor 35). The efficacy of variable reinforcements is also evident in people's behavior because places like Las Vegas would not be in business without them.

Putting positive reinforcements to work during a photo session can be as simple as reinforcing a behavior like a *sit* or a *down* command or as complicated as using reinforcements to overcome a fear of the flash from the studio strobes. Punishment or negative reinforcement is never used in a photography session. Ever. They should never be used in a photography session for two reasons; first, the dog will never work for the photographer again (Burch and Bailey 162), and second, the photographer does not want to punish the dog in front of the owner. The photographer should also not allow the owner to punish the dog during the session because the dog will likely no longer engage, which will be the end of the photo session.

Flash Fear

A dog's fear of the bright light from the studio strobes can sometimes cause problems during the photo session. Operant conditioning can be very useful in solving this problem. Information about the dog's reaction to bright lights and strobes can sometimes be identified during the important in-person consultation before the photo session. During the consultation, the photographer may see behavior that raises suspicions that the dog might be afraid of the flash from the studio strobes. Sometimes the owner will tell the photographer that the dog is afraid of thunder and lightning storms, at which time the dog trembles uncontrollably or goes and hides. This sometimes indicates that the dog might be frightened of the flash. Or during the consultation, the photographer may notice that the dog is a little jumpy around new things and new situations (McConnell 9). Operant conditioning techniques can help to calm the dog.

The process of controlling the dog's fear of the strobe flash uses the operant conditioning process of desensitization and counter-conditioning. First, the photographer needs to have a high-value reinforcer (reward) available. The dog's favorite treat can be brought to the photo session by the owner. Make sure the treats are highly valued by the dog (Burch and Bailey 33). The

owner should also make sure the dog is hungry for the photo session because a hungry dog responds better to treats. If the treats provided by the owner are not high enough in value, the photographer can use cheese, a treat most dogs love (Collins 144). Spray cheese and tiny bits of bland cheddar slices almost always work. Remember to keep the reinforcement rewards tiny.

The process starts with reinforcement sampling. Give the dog a little taste of the reinforcement treat. The idea is to get the dog excited about working for a tasty treat (Burch and Bailey 43). What happens next is called desensitization and counter-conditioning.

The science of desensitization is that the stimulus (in this case, the flash) is presented at such a low-level that the animal does not respond. As the animal gets used to the low-level stimulus, the stimulus gradually increases until the animal ignores the full-strength stimulus. At the same time, counter-conditioning is used so the animal associates something good with the full force stimulus. Counter-conditioning could be any reward that the animal might enjoy, including food, toys, praise, or other rewards. Desensitization and counter-conditioning are used together because they are more effective than when used alone (Yin 36). When the animal is repeatedly exposed to the stimulus with the counter-conditioning, a process called habituation occurs. Habituation is the process whereby an animal no longer has an adverse reaction to a stimulus after they have been exposed to it several times (Burch and Bailey 88). Basically, the animal gets used to the stimulus that once frightened them (Yin 67).

The Studio Session

How does the science work in the photographic studio? If it has been suggested during the consultation or another time before the photo session that the dog might fear the flash, desensitization and counter-conditioning can be used to introduce the flash to the dog. Here is how it could be done. Before the session starts, the dog and its owner, or the dog and a handler,

are in another area just out of sight of the camera room. The location is chosen so the dog will see the flash as it bounces off nearby walls but not be in the same room with the flash. The owner or handler will give the dog a treat. When the treat is given, the photographer remotely triggers the flash. The process is repeated multiple times. Then have the dog move a little closer but still out of the camera room and repeat the process. This process continues, moving a few feet each time until everyone is in the camera room; the dog is fine with the flash and can start the photo session. Remember, for this to work, the reinforcement rewards must be very high-value. This process is systematic desensitization of the flash. The reward (treat) is counter-conditioning for the flash fear, giving the dog something tasty to eat instead of being afraid of the flash (Yin 36). If instead, the fear of the flash develops *during* a photo session, give the dog a break, and then bring the dog into the camera room and do the flash/treat routine.

Even if the photographer feels they have been successful in helping the dog overcome their fears, take nothing for granted. The photographer can take additional steps to try to ensure success by photographing poses in a particular order. The first shot should be the pose that is most important to the owner. If the dog is doing fine with the flash, continue to photograph the dog alone according to the plans made during the consultation. After the photographer has the images needed of the dog by themselves, the photographer can photograph the dog and the owner together. The reason for doing the poses in this order is that if the dog is reassured by having the owner next to them during the photographs, they may never sit by themselves for photos. If the photos with the owner come second, it is a reward for the dog for successfully doing the poses by themselves first.

The photographer must never be afraid to stop and give the dog a break during the photo session. Sometimes the dog's discomfort might be as simple as needing to go outside for a

toileting break. Other times playing a short game of fetch, or tugging with a favorite toy, might be the break the dog needs before continuing.

All through the consultation and photo session, the photographer should be paying attention to the dog's body language. Remember, the signs may be tiny and nuanced; the photographer just needs to be paying attention (Collins 140). Dogs want to please us. Make it easy for them to do just that.

Conclusion

Dogs have been with us for thousands of years. They have served us not only as workers, but also as our companions. Thus, it is not surprising that people want to be photographed with their dogs. It is up to the photographer to learn about dogs, so the photo session goes more smoothly. There are many different behaviors dogs use to communicate with people. The photographer needs to learn what the behaviors are, what they mean, and be able to communicate back to the dog for a successful photo session. They need to understand operant conditioning and use the rewards process to make the photo session more fun for the dog. Meet with the owner for an in-person consultation before the photo session and manage the owner's expectations throughout the process. The photographer can only do what the dog will allow them to do. They need to make sure the owners understand this.

Take the extra time to make a dog comfortable in the studio. It makes a huge difference in the caliber of images from a photo session. Learn the subtle ways a dog will try to communicate. Try in every way to be dog knowledgeable and dog friendly because if the photographer creates an environment where dogs are comfortable, they will naturally pose in ways that the photographer could never have imagined. With good posing ideas come great portraits. With great portraits come happy clients.

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