

## Arousal and welfare in dogs: Why we should rethink long duration and high-arousal activities

Arousal is the amount of energy that is expended in a particular context. Affect, or emotion, is a function of high or low arousal, and valence. Valence describes the value of the arousal, either positive (good) or negative (bad). When animals are highly aroused, with a positive valence, we could describe that affect as "elated" (Posner, Russell & Peterson, 2005). In contrast, when animals are highly aroused, with a negative valence, we could describe that affect as "elated" (Posner, Russell & Peterson, 2005). In contrast, when animals are highly aroused, with a negative valence, we could describe that affect as "angry" or "aggressive" (Barrett, 2017). Additional labels that are often used to describe problem behaviors and can be correlated with negative emotions and high arousal, are anxiety, fear, and frustration.

Managing arousal levels in our dogs during any high arousal activity is a key component of setting the context for dogs to be "happy" and learn emotional self-regulation. Management of arousal is also important to minimize damage to dogs' immune systems that occur through regular and excessive arousal (Bartlett, 2017). One strategy for improving health and welfare while still having fun with our canine companions is to engage in high-arousal activities for short bouts followed by a low arousal activity and then repeat the process. Let's take inter-dog play as an example.

Here's the basic set-up: train a great recall with your dog before they meet up with their canine friend. Then, allow your dog to play with another dog and every few minutes call them out of play for a training break. Breaks should be enforced every 2 minutes if the dogs don't know each other well, and after no more than 5 minutes if they are great buddies.

## Here's the longer process:

1. Start off with a low-arousal greet between two dogs who don't know each other yet. The safest initial introduction should be in protected contact such as through a fence with the dogs in harnesses with leashes attached. In cases with dogs who have a history of barrier frustration, it can be beneficial to start the introduction by walking two dogs parallel to one another from a safe distance, such as across a parking lot.

2. Once the dogs show low levels of arousal, an introduction with leashes attached to harnesses and no barrier can be attempted. Handlers should take great care to keep leashes loose at all times to avoid any corrections or pressure.

3. If dogs are engaging in continued pro-social behavior and appear to want further interaction by displaying loose bodies, lifting paws, soft tail wags with long, wide sweeps, bent elbows, body wiggling, offering of play bows, soft eyes, and ears back without tension, then you can drop of the leashes.

For this process to be successful, you will need to wear a treat pouch filled with food and be skilled at reinforcing desired behaviors. When used with skill, food should not elicit resource guarding behaviors between dogs. That is, feed the dogs directly to their mouths with their faces turned away from each other, and don't allow food to fall to the floor as it might cause some conflict between the dogs. The use of food can serve as a good assessment of the stress levels of the dogs, as many dogs will stop taking treats when they are experiencing stress, fear, or are too highly aroused. Reinforcing good play skills by using food during breaks can lead to a better experience for the dogs as well. And, a dog who can be called away from play to focus on a handler is a safer dog to have in a play pair.

The next step is to be ready to call your dog back to you after two or five minutes post the interaction for a little training break. Reinforce the dog for coming back to you and then ask them for a few "tricks" like a hand target, a spin, or whatever other trick they know. Do this low-arousal activity until you see a reduction in respiration rate and a decrease in pupil dilation. This pause also gives you an opportunity to ask your dog if they want to return to the play session. If they avoid returning to the other dog that means they have had enough for the day. Dogs should always enjoy their play time. If not, then play is not an appropriate form of enrichment for that animal. If dogs are subjected to continued non-consensual interactions, the negative lessons that they learn can have long lasting and negative consequences.

This short high-arousal activity balanced with a low-arousal activity process is not just for inter-dog interactions. The process can be replicated with any high-arousal activities like playing with a tug toy, flirt pole, jogging, or any high arousal dog sports. If you use this process, your dog, and their immune system will thank you!

## References:

- 1. Barrett, L.F. (2017). How emotions are made: The secret life of the brain. Houghton Mifflin Harcourt.
- 2. Bartlett, S. (2017). Smashing mindset. Thrive Publishing.
- 3. Posner, J., Russell, J. & Peterson, B. (2005). The circumplex model of affect: An integrative approach to affective neuroscience, cognitive development, and psychopathology. Developmental Psychophathology, 17(3), 715-734.

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