Equine Behavior: Think like a Horse

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Working with horses is an inherently dangerous occupation. If the horse is to be subjected to painful or noxious procedures the risk to handler and horse increases. An understanding of how the horse perceives and reacts to these situations will make our job safer and easier.

The horse world has undergone a revolution in training methods over the last 25 years. The term ‘horse whisperer’ has replaced ‘horse breaker’. Horse trainers now travel the world teaching ‘natural horsemanship’. Each trainer has devised his own terminology—resistance-free training, join up, carrot stick, passive leadership, to name a few. The point of all of these methods is that the horse is a prey animal and man is a predator species. The entire revolution in training is really not about training horses. It is about training people to not act like predators when working with horses. When we act like a predator the horse does what a prey animal should do. He either tries to escape or fights to save his life.

Robert M. Miller, DVM has been writing about equine behavior for many years. In his book Understanding the Ancient Secrets of the Horse’s Mind, Dr. Miller describes 10 characteristics that help us understand how a horse thinks. First, the horse is a flight animal. His natural instinct is to flee from anything he doesn’t understand. This means that the horse may respond to a stimulus by fleeing before he knows what he is fleeing from. To run first and ask questions later keeps you from being eaten by the predator. The second attribute of the horse is perceptivity. By understanding the sensory perception of the horse we gain knowledge about equine behavior. Vision, hearing and smell are important for the horse to interact with humans. First consider the remarkable range of equine vision. Because the horse’s eyes are positioned laterally on the head, he has a panoramic view from each eye leaving only a 20° blind spot in the rear. The vision from each eye overlaps in front forming an area of binocular vision. His hearing and sense of smell are also more acute than that of humans. Horses most certainly can “smell the vet” and may associate the odor of disinfectants with the last time you performed a noxious procedure on them.

Another example of perceptivity is much less obvious. A study done in Sweden in 2009 demonstrated that horse heart rates increase if the heart rate of the human leading them increased. The suggestion was made that horses can some how sense fear or anxiety in the human and is reacting to it.

The third characteristic is response time. Miller claims the horse has the fastest reaction time of any common domestic animal. Humans cannot react as fast as the horse. This is why remaining in a safety zone is so important. These three characteristics are why people perceive horses as ‘flighty’. The acute awareness of their environment coupled with rapid reaction time facilitates flight from danger.

Horses would constantly be running and impossible to work with if these were the only characteristics of a horse’s mind. Miller lists three more characteristics-- rapid desensitization, quick learning, and excellent memory, which allow a horse to adapt rather than simply respond to his environment. We utilize these characteristics of the horse to facilitate our training programs. We desensitize a horse to a saddle and blanket by rubbing it all over him repeatedly. He quickly learns that the blanket and saddle do not hurt and do not restrain him which would allow a predator to eat him. This memory will be ingrained in the horse’s mind and he will always be comfortable with the saddle. However, if the first experience is not pleasant, the memory of the bad event will be just as deeply imbedded as a good one. I have found this to be especially true of mules. They quickly learn that veterinary procedures are not pleasant and they remember you from the last visit.

For most veterinary procedures we need to control a horse much larger and more powerful than ourselves. Miller states that the horse is the most easily dominated domestic animal. This dominance hierarchy is essential for the wild herd to respond to a leader in the face of danger. How a horse dominates another is Miller’s eighth characteristic. One horse demonstrates dominance over another by control of the subordinate’s movement. Watch a herd of horses as the dominant horse makes another horse move at a feeder or in the shade of a tree. Most of the time there is no violence and no threat of violence by the dominant horse. He simply goes where he wants and the submissive horse gives space. The movement often does not improve the position for the dominant horse but serves to remind the subordinate who is in charge.
We use this concept in veterinary medicine when we put a horse in stocks. The movement of the horse is restricted so he becomes more submissive. Another example is the horse who is dominating you by walking over you or pushing with his head. Simply making that unruly horse back a few steps or lunge a couple circles will often make him more submissive. This is also very important in good round pen work. You make the horse move and you control the direction of movement. Soon the horse recognizes you as a leader and submits.

Body language is the next important characteristic of equine behavior. This body language is instinctual and not a learned behavior so it applies to all horses. A submissive horse will lower its head and lick its lips when confronted by a dominant horse or when showing submission in the round pen. It is uncommon for a horse to resort to violence when interacting with a subordinate. Simply laying ears back or making a bite threat may be signal enough for the subordinate to move. We in veterinary medicine should always be reading the body language of our patient. It is critical to understand whether the horse is fearful, submissive, or is trying to dominate us.

The following is a short list of behavioral postures which veterinarians should be aware of:

**Alert:** The horse has a rigid stance with head up and ears forward. The horse is investigating something unknown or new in the environment and deciding whether to stay or run. If he decides to run you may be in harms way.

**Bite threat:** The ears are laid back, head extended, and lips retracted to show teeth. This may be only a threat or may escalate into an actual bite.

**Ears laid back:** This may be associated with a bite but often is simply a sign of aggression. This posture is often used when a horse is trying to be dominant over a human. It may be followed by a bite or other form of aggression if the human does not respond.

**Kick threat:** Hind quarters are presented and a leg is raised slightly. Tail may switch and the horse may bounce up and down on rear legs. It is impossible to distinguish the threat from an actual preparation to kick.

**Nip:** Similar to bite but mouth is less wide open. This may occur as a playful action but may also be seen as a moderately aggressive act when a horse is trying to dominate another horse or human.

While we are trying to read equine body language it appears horses also read our body language. British scientists had one person stand in a pen facing a horse and another with his back to the horse. Nearly 80% of the horses chose to walk toward the person who was looking at the horse.

Miller's final characteristic of the horse's mind is that of precocity. The newborn foal needs to be able to respond to its environment quickly in order to survive. The imprinting period right after birth is the time the foal learns to follow the dam and the herd to survive. Dr. Miller advocates using this time of early learning to introduce the foal to veterinary procedures which will be retained in the foal's memory in later life. He simulates procedures such as rectal temperature, nasogastric intubation and foot care when the foal is less than 12 hours old, believing that this will be imprinted in the foal's mind for the future.

Applying these 10 principles can make our daily interaction with horses much easier and more enjoyable. Here are a few examples.

1. Move slowly and talk to the horse so they are never startled. Rapid movements are normal for humans trying to 'get something done' but that is not the way the horse thinks. Remember when you surprise a horse they react rapidly and escape as a first instinct.

2. Take advantage of that excellent equine memory. Make the last thing you do to the horse a pleasant experience. He will probably like you better next time.
3. Horses are herd animals. Don’t lock them in a stall with solid walls and no visual contact with another horse. A horse by himself is often more agitated and harder to treat.

4. Read the body language of the horse. Ears forward may mean attentive or may mean afraid. The tail swishing is probably at a fly but be sure it is not a warning to you.

5. The horse must recognize you as the leader. You can establish dominance by controlling movement. Make the horse back a few steps or work in a circle.

6. Control your temper. Do not become the predator as this will stimulate the flight response. In some cases physical force may be appropriate. Remember the horse will understand dominance if you kick him in the belly but the owner may not!

7. A lip twitch is used to control movement and release endorphins in the brain. If you misuse a twitch as punishment device you trigger the fight/flight response.

8. Horses are extremely perceptive. Don’t ever believe hiding a halter behind your back when catching a horse is fooling the horse.

9. Do not aggressively pursue if a horse resists a procedure such as examining an eye. Advance your hand to the eye, then retreat a little and pet the horse’s face. Advance again when the horse relaxes. It may require several advances and retreats before the horse relaxes enough for you to evaluate the eye. This makes us act less like a predator and takes advantage of the rapid desensitization that occurs in horses.

10. Do not discipline a horse that shies away. It shies because it is afraid of being hurt. If you discipline the horse he has indeed been hurt. Bring a horse back to the frightening object and reassure her. She will learn that no harm is associated with the fearful object and will become rapidly desensitized.

11. The tendency of a horse to move into pressure is called the opposition reflex. If you pull on a horse he pulls back. If you push on a horse he pushes back. When you want to lead a horse, pull and release on the rope. The release is the reward for moving forward. Poke a horse with your thumb to make him move over. If you push on his side he will just push back.

The entire point of this presentation is to improve the interaction with our equine patients. A client reminded me that we may be working with an owner and a horse that are nervous about coming to the vet. We know how to relate to the human. If we limit our natural tendency to be a predator we will be able to relate much better to the horse.

References


