



Training Horses Safely

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Horses possess many attributes which make them a species of choice for human companionship and service. Relating to horses requires a knowledge of their behavior. Without this knowledge, involvement with them can be dangerous.

Horse Behavior and Trainability

Behavior is a product of both instinct and experience. To some degree, all horses behave in a similar fashion. Successful training depends on the trainer's understanding of these traits and how stimuli (cues) can be applied to modify behavior. Behavioral traits important to training include the fight or flight response, memory, perception of and reaction to stimuli, and the response to dominance.

The Fight or Flight Response

Horses are a prey species and they survive by fleeing from danger. This could be something that has invoked fear in the past or something new or different. Trainers build on the flight response by allowing escape to be an acceptable response to training cues, especially in early training. An example is the use of a hip rope on foals when teaching them to lead. A horse's natural response to pressure is to flee from it. Pressure on the hip rope is applied to encourage them to move forward. If they respond by moving backward into the pressure, we apply additional pressure. We teach them to move away from pressure by releasing the pressure when they respond acceptably, which in this case would be to move forward.

The instinct to flee can cause safety problems when a horse is handled or confined. If a horse panics, it may run over handlers, fences, or other obstacles. Proper training lessens the instinct to escape.

Wild horses interact in herds where fighting is a frequent part of social order. Domesticated horses can also become aggressive and strike, kick, bite, or run over objects, people, or other horses. Building security and respect at early ages decreases this response toward humans. Any horse can become aggressive toward a handler, especially stallions, mares with foals, older horses with little training, and young horses in the initial phases of training.

Memory and Repetition in Training

Horses have good memories, but they do not have an appreciable reasoning ability. They learn through repetition. Initially, trainers allow simple and slow responses to cues. Advanced training results from the use of step-wise training procedures that allow the horse to add intricacy and speed to previously learned responses.

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Perception and Reaction to Stimuli

In the wild, horses rely on early recognition of danger and quick response for survival. This poses both advantages and disadvantages when training. Horses are very perceptive and can react suddenly to sounds, sights, movement, touch, and smell. Trainers capitalize on a horse's sensitivity to voice when teaching a horse to respond to cues.

Training programs desensitize horses to unfamiliar stimuli. Through the use of slow, step-wise training methods, most horses readily accept unfamiliar areas or objects such as trailers, indoor arenas, traffic, or people. With experience and a trust of humans, horses learn to ignore many of these. However, loud noises or unfamiliar sights may frighten any horse, so handlers must be prepared at all times.

Submission to Dominance

Dominance is part of the social order of a herd. Horses are trainable because they can be taught to recognize the dominance of humans. Trust is developed when a horse feels secure about the actions of humans. A horse develops security when actions of humans are consistent and are recognizable from past interactions under similar conditions. Desirable training programs build on the horse's respect of dominance based on trust.

Training Principles Based on Expected Horse Behavior

Several training principles are used based on expected horse behavior. These behaviors allow us to somewhat predict how a horse will respond to a stimulus.

Stimulus -> Response -> Reinforcement

Stimulus

The "stimulus, response, and reinforcement" principle is used to train horses. We apply a cue (stimulus), the horse reacts (response), and we reinforce the response based on its acceptability. The response to most cues must be learned by the horse because the desired action often does not come naturally.

Response

A horse will respond to a cue by fighting or moving to escape from pressure. When a handler pulls a lead rope to

cue the horse to move, an acceptable response would be for the horse to move in the direction of the pull. Reinforcement allows release from pressure on the halter. An unacceptable response, such as moving against the direction of pull, results in negative reinforcement.

Reinforcements

Reinforcements may be positive or negative. Most positive reinforcements are learned. For example, a horse learns that a soft pat or a rub on the neck is a reward because it is associated with a release from training or exercise. Food is a positive reinforcement used in short term task training, such as 'performing tricks.' The disadvantage of 'food reward' reinforcement is the horse's preoccupation with the reward frequently distracts its attention to longer termed, step wise training that is characteristic of most horse training programs. If used, 'food reward' training should be used with discretion, and not as the sole reinforcement tool.

Negative reinforcements encourage the horse to respond and avoid another cue. Negative reinforcements use the principles of escape and avoidance.

The escape principle uses behavioral traits inherent in horses. An example is the direct rein. Pressure is applied by a direct pull; the horse escapes the pressure by moving in the direction of the pull.

Avoidance is also used in negative reinforcement. The horse learns to avoid an additional reinforcement by responding acceptably to initial cues. For example, a horse is cued to move away from leg pressure. If the response is acceptable, it is reinforced by the release of leg pressure. If the horse ignores the cue, reinforcement is a similar but more intense cue (i.e., a kick reinforces a leg squeeze). Through repetition, the horse associates the unacceptable response with more intense reinforcement and learns to submit to the initial, less forceful cue.

Punishment is used to eliminate bad habits and aggressive behavior initiated by the horse, such as bucking, rearing, and kicking. Punishment reinforces the dominance of humans and eliminates dangerous actions. To be effective, punishment requires intense, forceful, timely, and short-termed actions. Application should be reserved for responses initiated by the horse that were intentional to harm handlers, other horses or other humans. Punishment applied inappropriately causes fear and insecurity in a horse. A loss of security produces an untrainable horse.

Some undesired actions of horses go away without reinforcement. For example, the introduction of a bit causes a horse to bite and chew on the mouthpiece. This response will usually go away without any reinforcement when the horse learns to tolerate the mouthpiece.

Cues require reinforcement throughout the horse's performance career. Young horses need reinforcements continually in training. Older well trained horses should respond with less negative reinforcement. The goal of training is for the horse to respond to all cues in an acceptable manner without obvious reinforcements. However, even a highly trained horse requires reinforcements to maintain its level of training.

Repetition and Consistency of Cues and Reinforcements

Horses learn through repetition. Repetition increases a horse's ability to master a task. It also serves as a review

before new or more intricate movements are performed. Too much repetition allows a horse to learn to avoid the physical or mental output of a maneuver. This can happen when a barrel horse runs a pattern too often, for example.

The ability to learn cues quickly and accurately depends on the consistency of reinforcements. Horses are very perceptive. They are able to recognize slight differences in cue application. This allows for more intricate stimuli and more advanced maneuvers.

Contingency

Horses respond quickly to stimuli. To be effective, reinforcement must occur immediately after the horse's response so that the horse learns to associate the reinforcement with the preceding cue.

Fatigue

Some horses learn to ignore constant stimulus by building physical and mental barriers. Horses fatigue easily so cues must be short in duration (i.e., a pull and release of the reins or a squeeze and release with the legs). When the stimulus is constant and prolonged, most horses will either ignore it or try to escape by fighting the pressure (i.e., running away while the rider is pulling back on the reins).

Fatigue also limits the length of single training sessions. Young horses, mentally and physically unconditioned to training, must be worked in short training sessions. The session length and number of cues can be increased as the horse matures and learns. Varying the type of work and intermittently allowing the horse to relax during a training session prevent fatigue.

Shaping Behavior with Step-wise Training Programs

Advanced training requires mental and physical maturity. In advance training programs, coordinated maneuvers are divided into a series of simple tasks. Movements are added as the horse masters each task. For example, when stopping, a horse must shift its weight to the hindquarters and flex its head. The horse must first learn to carry its body in a collected frame. It must respond to voice commands, body movement of the rider, and mouth pressure from the bridle. Learning is enhanced when movements are first taught at slower speeds, such as a trot rather than a lope or gallop. The slower speed allows for small delays in response time. The horse is able to position its body as it learns the desired response.

Safety Principles Related to Training and Behavior

1. **Recognize the horse's natural defense mechanisms.**
 - Frightened or aggressive horses may panic, escape, or fight. They may have little regard for human dominance or safety. Learn to recognize the differences between fear and aggressive behavior. A frightened horse will need slow, consistently applied reinforcement to build security. Horses that initiate dangerous, aggressive behavior must be punished to eliminate the response.
 - Understand horse behavior as it relates to herd social order, stallion sexual behavior, and mare and foal rela-

tionships. Expect some horses to be more aggressive than others.

- Watch for the visual signs of behavior and attitude. Recognize the signs of a frightened, confused, or aggressive horse.
- Don't try to herd or lead a horse when standing directly behind or in front of it. These are blind areas in a horse's visual field. A horse may bolt forward or kick when frightened or aggressive.
- Approach a horse at its shoulder. This allows you to use your body to impede movement while positioning yourself in a safe location.
- Make a horse stand when turning it loose until you are safely positioned to avoid being run over or kicked. Position the horse so that its head is facing a wall or fence before removing the halter. This will keep the horse from bolting.
- Don't allow yourself to be trapped between a frightened or mad horse and a stall wall or other barrier.
- Do not chase horses when trying to catch them. This action reinforces the horse's desire to escape.

2. Recognize the reactivity of horses.

- Be cautious in new environments. Recognize small changes in the environment that may frighten a horse.
- Move slowly and deliberately around horses. Avoid sudden movements that may confuse the horse or be perceived as a prelude to punishment. Punishment usually involves quick movements.
- Introduce clippers, blankets, and saddles in a safe, familiar place. With experience, most horses learn to ignore the sound, sight, smell, or movement associated with routine procedures.
- Always be prepared for an unexpected stimuli that may frighten the horse, especially in new environments.

3. Understand the need for reinforcements.

- Stay alert to cues and reinforcements at all times. Be consistent in your cues and acceptance of responses. Recognize that cues are applied to horses constantly while you are handling them.

- To develop and maintain trust and acceptance of human dominance, apply appropriate and consistent reinforcement and punishment.
- Punish bad behavior to eliminate undesirable responses. Apply punishment discriminately. Make punishments intense, short termed, and contingent upon the action.
- Allow for escape and avoidance options when applying negative reinforcement. Give the horse an identifiable reward by applying simple, consistent cues with quick release.
- Train the horse to respond to a rider's hand, voice, leg, and body cues through the use step-wise training programs.
- Apply contingent reinforcements so the horse will associate them with the intended cue.

4. Use proper equipment and facilities to encourage acceptable responses.

- Use stocks when treating, washing, or performing activities the horse may perceive as threatening.
- Tie horses with quick release knots.
- Evaluate enclosed areas for horse and rider safety.
- Use roundpens and other enclosed areas when teaching horses to respond to training aids.
- Understand the function of different bits and training aids and use them in a safe manner.
- Maintain equipment in good repair. Perform routine equipment checks and replace questionable parts which could fail under stress.
- Use properly fitting equipment to allow for consistency of cues, release of pressure, and safety.
- Wear protective clothing and safety gear, such as boots, pants, and head gear or helmet. Make sure clothing and safety gear fit properly and securely.

5. Learn the procedures of horse handling and use.

- Obtain advice and instruction from qualified, experienced individuals.
- Become familiar with the activities in which you intend to participate before introducing them to your horse.
- Initiate newly learned techniques under the direction of experienced individuals.

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Bringing the University to You!

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Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

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