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An overview on basic horsemanship

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Abstract

Basic horsemanship includes the art of riding, handling, and training horses which relies on subtle interactions between horses and humans. It consists of major steps of haltering, leading, longeing, saddling, bridling, mounting and dismounting. Good horsemanship requires a rider to control the animal's direction, gait, and speed with maximum effectiveness and minimum efforts which occurs through the correct application of reinforcement. Behavioural approaches to training mark the value of horsemanship while several unwelcome problems develop because of the inappropriate application of training techniques resulting in a decline in the utility value of horses. However, the problems can be successfully managed by a modification of the behaviour by allowing the horse to socialize, providing enough exercise and adequate diets along with grazing and good training practices.

Keywords: Horse, horsemanship, behaviour, training, management

1. Introduction

Horsemanship is a knowledge of skills necessary for the riding and care of horses. Horsemanship involves paying a strong focus on the horse ethology, the way horse learns and accept the tendency of its favorable behaviour ^[1]. Basic horsemanship begins with knowledge of the procedures for breaking and training an untrained horse ^[2]. It requires attention, patience, dedication and hard work. Horsemanship is also called as 'Equitation', the word originated in the mid-16th century from Latin word 'equitare' meaning 'ride a horse'. Horse riding brings both social and environmental challenges and is a useful example of the way we overcome horses' innate responses and thus ignore their preferences ^[1]. For proper riding appropriate training of the horse is needed in which the human handler introduces the horse to new situations and associations ^[3]. Effective and humane training of horses requires an understanding of the processes underlying behaviour. It employs social interaction between horse and human ^[4]. Learning and training ability of the horse depends upon two factors; intelligence ^[5] and motivation ^[6]. Horsemanship accounts knowledge of the behaviour of the horse under natural conditions, learning processes, the influence of early experience and motivational forces ^[3].

2. Why is behaviour important in horsemanship?

A basic understanding of equine behaviour is important for effective communication between the personal and the horse which makes training procedure easy ^[7]. Behavioural knowledge ensures effective management of the horse. Horses are highly reactive and it instinctively runs at the first sign of danger. Understanding the behaviour along with good training can overcome this behaviour so that the safety of the horse and personal can be maintained. By understanding the behaviour of the horse a person can be able to differentiate between normal and abnormal behaviour which helps in understanding the horse in a deeper way.

3. Behavioural principles of training

Behavioural principles of training are primarily based on two principles; hereditary and environmental influences ^[8]. It depends on two people; breeder and trainer. Breeder governs the hereditary principles whereas trainer is solely responsible for increasing the performance of horses which largely depends on the environment. The performance of the horse is likely to be heritable in some degree and it varies from breed to breed, for instance, Thoroughbreds have high heritability of racing ability ^[9]. Training or any sort of learning whether it is human or animal deals with the modification of behaviour ^[10].

Before training, a trainer has to know the optimum level of performance of the horse ^[11] and during training; the environment should be divided into stimuli and reinforcement to obtain the desired response. These three; stimuli, reinforcement and response thus form the psychology of horse training ^[12]. Stimuli are the event that evokes a specific functional reaction whereas reinforcement is the process in which reinforce follows a particular behaviour so that the frequency of behaviour increases ^[13, 14]. Reinforcement is capable of strengthening the responses to certain stimuli. Stimuli are of two types; conditioned and unconditioned stimuli ^[15]. The conditioned stimulus is where the horse responds to known stimuli, also known as learning through practice. However, during unconditioned stimuli, the horse responds to unknown subjects or it is the result of responses that generate without any prior practice. Conditioned stimuli are frequently used in training ^[16]. The stimulus-response reinforcement theory states that the horse perceives a stimulus or cue, such as the rider's legs or seat or weight and voice. Cues are the signals by which the trainer tells the horse, what to do. These signs should be taught to the horse to understand and obey his trainer. All forms of horsemanship involve the use of rider's legs and the reins for control of acceleration and deceleration, changing direction, and moving sideways ^[17]. The horse then makes a random response to the stimulus. If this response is correct, the horse receives positive reinforcement or reward. If the response is incorrect, then the trainer can ignore the reaction and repeat the stimulus or apply negative reinforcement until the horse responds appropriately. Positive reinforcements in horse training are giving the horse something it likes ^[18] and negative reinforcements are removing something it does not like ^[19]. Both positive and negative reinforcement strengthen the connection between a specific stimulus and desired response so that when the specific stimulus is presented again, the horse is more likely to respond correctly ^[20]. In other way, reinforcements can be either natural, or primary (food, pain, return to herd mates), or secondary which is learned by the horse and acquired over a long period ^[11]. The horse must learn from repetition and the communication between trainer and horse.

4. Behavioural problems and their management during the training of horse

Behaviour is generally the animal's "first line of defense" in which the animals interact, react, and control with their environment ^[21]. Horsemanship must be closely correlated with the understanding of horse behaviour along with the proper way of training. Horses are trained to carry out desired behaviours by stimulus control ^[22]. Individuals who train horses must be able to notice the changes in behaviour which is often the earliest signs to indicate suboptimal environmental and management conditions ^[24]. Prolonged inadequate management and training may lead to the development of aggression towards human ^[24]. According to some study, behavioural problems are not directly related to a poor environment; it may be the result of pathology or neurological predisposition ^[21]. One report says, behavioural problems in the horse usually result from confusion and sometimes pain, caused by the actions of riders or trainers in their attempts to train new behaviours or eliminate existing, unwanted natural behavioural responses ^[25]. Frustrated motivation, badly fitting or inappropriately used equipment

and poor riding and training techniques also give rise to behavioural changes in horses. Inappropriate techniques, especially those that cause flight responses or conflict behaviour, jeopardize the safety of riders and handlers and can have a negative impact on the horse's welfare ^[26]. Similarly, some good techniques ^[27] and a better understanding of horse behaviour and their learning processes ^[28] improve the safety of both horse and rider ^[1] and help to calm horses thus, facilitate training.

Most frequently observed behavioural problems in horses are crib-biting, weaving, box walking, wind sucking, and wood chewing. Crib-biting is grasping a solid object with its incisors flexing its ventral neck muscles and drawing air into the upper esophagus by making a characteristic noise. It is believed that crib biters are having a lowered learning ability compared to non-stereotypic horses ^[29, 30]. It is reported that Thoroughbreds are more likely to crib compared to other breeds ^[31]. Head shaking in horses make it difficult in riding. It may be present in response to discomfort or pain ^[32] in locations of the body such as the mouth, limbs, and back ^[33]. It may be because of inappropriate bridle during training ^[34].

Wood chewing leads to a higher degree of physical weariness ^[35]. Weaving and box-walking in stabled horses are also said to have harmful consequences such as muscle damage and fatigue ^[36]. Locomotor stereotypies, such as weaving and box-walking, may be related to exercise, so turning out or frequent exercise can reduce their incidence ^[37]. Weaving often leads to locomotory problems, for example, strained ligaments, poor performance, and reduced condition of the horse ^[38]. It is also believed, by some owners to be the cause of weight loss, uneven muscular development of the neck, and fatigue that may affect the horse performance ^[39]. This may be associated with the loss of condition and sometimes poor performance ^[40]. This stereotypic behaviour also makes it difficult to keep the bedding clean and fresh, leading to further degradation of condition ^[41]. Horses sometimes display behaviour with the movement of lowering head and raising hindquarters into the air, usually while kicking out with the hind legs it is called as bucking which is considered as a natural behaviour for horses but it may come under stereotypes when it is done repeatedly. The reason for bucking is possibly due to discomfort and pain, unbalanced rider, frustration from not being able to move forward fear of loud and poor riding techniques ^[42]. However, rearing is a normal play behaviour in horses where the horse stands up on its hind legs with the forelegs off the ground but it becomes difficult to control the horse when the behaviour is repeatedly done while riding. The most common cause of rearing occurs when the horse becomes confused and frightened ^[43].

Behavioural problems are undesirable as they are harmful and a sign of poor environment ^[44] and correcting these problems can be a difficult task. Most behavioural issues can be successfully resolved through assessing the problem and applying behaviour modifications techniques ^[45, 46]. It was observed that properly trained horses present a few behavioural problems ^[47]. Punishment is almost never effective in correcting the behavioural problems but may result in worsening the condition ^[48]. There are several technologies and devices to correct different behavioural problems but most of the problems can be successfully managed by allowing close tactile and visual contact with the neighboring horse, providing adequate high fibrous diets along with enough time for grazing and exercises ^[49, 50, 51].

5. Steps of horsemanship

Horsemanship includes training of the horse which requires skill, patience and care of the horse. There are three key things of training; movement, touch and sound ^[52]. Horsemanship is of two types: Western and English. The basic principles of both types are the same and only the clothes and tack are different ^[53]. Devices used for early training of horses include a lead rope, halter, saddle pad, bridle with a jointed snaffle bit and reins ^[54]. All forms of horsemanship involve the use of the rider's legs and the reins for control of acceleration and deceleration, changing direction, and moving sideways ^[55]. The steps of horsemanship are discussed below.

5.1 Haltering

The initial step of training is haltering where the horse is taught to accept the halter in which the horse is approached from its left side. Haltering is better to be started at a young age. It is reported that handling and haltering a horse during the early part of their life increase the performances compared to the later part of life ^[56]. It may also be approached from the right side or head on, but never from the rear. A nervous horse can be calmed by rubbing the shoulder and neck and using appropriate gentle behaviour before being halter. Haltering is repeated for a week or two so that foal becomes used to it. The halter is designed to fit on the horse's head so the trainers can control the horses as they lead them ^[57].

5.2 Leading

This part of training is to be started before weaning or just after weaning before the horse gets too large to handle. Leading is done by taking a position on the left side of the horse, between the horse's head and shoulder and having a right hand on the lead rope. This is accomplished by rubbing the foal all over its body. To move the horse forward, give a slight pull on the lead rope in a forward direction ^[58]. As soon as the horse is gentle and leads quite well, it can long. Working with the foal for about 30 minutes a day for several days will teach it to lead.

5.3 Longeing

Longeing is a communication system between trainer and horse, built on the six results; causing a horse to go forward, backward, right, left, up, or down ^[59]. It teaches a horse to use correct lead. During Longeing a horse is compelled to walk in a circular path and is used frequently as a training technique ^[60]. Longeing is the use of a long rope to guide a horse during training or exercise in which the horse is taught the voice commands of the walk, trot, canter and whoa ^[2]. It was recorded that tongue click and vocal sounds used by a human during Longeing training has an impact on the learning process of the horse in which tongue click encourages the horse to move forward and low tone voice encourages the horse to slow down ^[61]. Longeing starts when the horse is young. It requires some equipment like a rope halter, longe line and longe whip (5 feet). The diameter of the longe line may vary from 20 to 30 feet or more ^[62]. During Longeing a trainer must have horse's full attention. The initial step involves the attempts of the trainer to make the horse move in a circle. Training begins with a small circle and as the horse learns to respond to commands, the circle is enlarged. A light whip may be used to start the horse moving. Hold the lead shank in one hand while standing next to the horses flank area and hold the longeing whip in the other hand. To make the

horse move, say walk and then cluck to it while tapping it from behind with the whip. To teach the horse to stop say, "whoa" and give a jerk on the lead shank. The horse is taught to trot by saying trot and tap it from behind with the whip. It is taught to canter in the same way. Work the horse in both directions equally so the horse learns a skill in moving both ways in a circle. The faster gaits should be taught only in a large circle. The horse can be taught to respond to voice commands. It should not be made for more than 10 minutes at first. Later, time is gradually increased to 20 minutes ^[2]. It usually requires 25 minutes for the training of one horse ^[63]. During longeing, the horses should be physically examined from both the left and right at walk, trot and canter for 10 to 15 minutes ^[64].

5.4 Saddling

Saddling is carrying something on its back while being longed. Before the saddling process begins, the horse should have been groomed, especially in the saddle and cinch (girth) area ^[58]. Before the saddle is placed on a horse, the horse's back and cinch areas should be inspected to make sure that they are clean and that all the hair are lying in their natural direction ^[12]. Sometimes weight and a saddle induce an overall extension of the back which may contribute to soft tissue injuries ^[65]. During saddling a horse is taught to stand quietly. Take a saddle on its back, wave it all around the horse, and gently slap the horse with it. This is referred to as "sacking out" ^[2]. The saddle pad or blanket is placed near the withers and extends down towards the center of the shoulder ^[66]. The purpose of the saddle pad is to prevent chafing or discomfort from the saddle while riding ^[57]. Once the saddle is in place, the horse immediately makes an effort to remove the saddle through bucking and continues until it has become familiarized to the feel of the saddle ^[67]. Mostly saddling is done from the left side of the horse. Once the horse is acquainted with right side saddling, it becomes progressively able to use it from both the sides ^[59].

5.5 Bridling

Bridling a horse involves placing the bit in the horse's mouth and putting the headstall over the ears ^[12]. A bridle is a piece of equipment used to lead and direct the horse. Bridles are used for steering or directing the horses ^[57]. It consists of some leather straps that go around the horse's muzzle and head, and a bit that goes into the horse's mouth. The bit should rest on the bars of the mouth in the interdental space correctly ^[66]. Traditionally, correct bit placement is determined by using the "wrinkle method". It should be high enough that it creates a small wrinkle at the corners of the mouth. What number constitutes an appropriate amount of wrinkles will vary from horseman to horseman which may be one or two at the corner ^[68].

5.6 Mounting and Dismounting

Following the saddling procedure, the trainer should place a foot in the stirrup while holding the rope in the left hand. The trainer must grip the saddle horn in the right hand and swing the right leg over the saddle to be placed in the right stirrup. Once the process was done on each side, gently lower the body onto the saddle. The trainer is now mounted on the horse. The left side is considered as the proper side for mounting and dismounting a horse ^[69]. During mounting, a large force is applied on one side of the body of a horse that results in loss of balance of the horse. The horse's body is

stabilized by muscular contractions to avoid such loss of balance. When the trainer habitually mounts from the same side, usually the left, this bracing may lead to asymmetrical muscular development, especially in the horse's shoulders. Visible differences are observed in muscular prominence between the left and right shoulders^[70], with the left shoulder being more prominent in the majority of horses. It is believed that bracing of the forequarters during mounting contributes to this asymmetry^[71]. Dismounting is basically the reverse of mounting.

6. Benefits of horsemanship

Horsemanship emphasizes on correct and safe horse handling and management skills. It develops basic health, nutrition and veterinary knowledge among the professionals. It encourages riders to become safe, effective, confident and knowledgeable about equipments and tack^[72]. Horsemanship challenges the rider to develop communication skills, empathy, leadership, and patience. Being around horses lowers the blood pressure and stress hormones, while the physical activity strengthens muscles and increases the cardiovascular capacity of rider. It also offers a fresh air alternative to the gym. Riding horses improves balance, flexibility, and core strength of the rider. Just grooming a horse is considered a meditative experience^[73, 74].

7. Conclusion

Horsemanship is a collective term for a variety of horse training techniques and requires an understanding of the natural behaviour of free-roaming horses. It advocates training and handling techniques which they claim are kind and gentle. The basic principle of horsemanship is to obtain results in a humane way by a combination of balance, seat, hands, and legs. Any deficits in the management conditions (housing, feeding, possibilities for social contact, and training methods) may lead to behavioural problems in horses. Developing awareness and attention to behavioural cues given by horses would certainly improve the horse-human relationship and decrease accidents among professionals when interacting.

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