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Responses of Horses of Various Breeds to a Sympathetic Training Method

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ABSTRACT

The objective of this study was to compare the responses of horses of different breeds to a sympathetic training method used during an initial training period, before the horses started their first racing season. Subject animals were 72 horses: 24 Thoroughbreds, 24 Purebred Arabians, and 24 Angloarabs. Each breed group consisted of 12 colts and 12 fillies. The sympathetic method used to train the horses lasted for 3 days in a row, one session per day. Training was divided into five stages, each stage made up of particular tasks to be achieved. The horse's reaction to the training was measured with the length of time (seconds) necessary to complete a stage and the horse's heart rate (bpm) during the stages. Data were analyzed by using multifactorial analysis of variance, taking into account the effect of horse breed, sex, and training session. Results showed that horses of various breeds had different responses to the training. The Angloarabs took the longest to complete the training stages. The 3-day training period caused the highest reaction in the Angloarabs, and the 3-day period was too short to allow for more than half of them to be mounted. Heart rate was more increased in Purebred Arabian and Angloarab fillies than in colts, which shows that fillies require particularly gentle treatment.

1. Introduction

Effective training should produce a safe horse which is a good companion, executes particular tasks willingly, and reacts compatibly to the human's discrete signals. The process of training relies on exposing the horse to a variety of specific stimuli that modify frequency and intensity of behavioral responses [1]. Traditional training can generally be defined as habituation to novelty, with the use of human dominance, a single protocol for all horses including the use of rewards and punishments as well as negative reinforcement. During the first 2 weeks of traditional training, horses are gradually habituated to lunging only; to bridle and lunging; to saddle and lunging; and last, to mounting and lunging with a rider. So-called natural horsemanship focuses on identifying visual and gestural cues given by horses [2]. Sympathetic training techniques, which are based on natural horsemanship, stress cooperation between horse and trainer. Similar stimuli, such as human visual signs and postures are used. Natural trainers are able to mount a horse on the first, second, or third training session. A bridle and saddle are not usually used during the first sessions but are introduced during the next steps of the training. A detailed comparison of these two training methods was described by Visser et al [3].

When starting to train young horses by using the sympathetic training method, a problem in communication between the horse and trainer can exist. According to recent studies, the stress can be reduced by using particular actions [3,4]. Heart-rate (HR) parameters show that horses have a lower emotional response to sympathetic training. Handling, using both methods, was studied by Fureix et al [2]. They stated that natural horsemanship exercises can improve the human-horse relationship. They observed various horse behaviors which demonstrated the efficiency of the natural exercises.

The positive effect of sympathetic training methods was found in a variety of studies. The results have aroused

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a growing interest in the technique. However, to date, responses to the method among horses of various breeds have not been researched. There are questions that need to be answered. Is the influence of the training on the horses always the same, regardless of the breed? Do the sexes respond the same to handling and training? In our study, the colts showed a more pronounced positive reaction than the fillies to the sympathetic training techniques [4,5]. The individual differences of the horses are also important [6].

Domestication and breeding processes are causing wild horses to lose some of their instinctive behaviors. The wild horses isolated from the natural environment of the herd were selected by humans according to such physical traits as obedience and were schooled to face various tasks. Polish Konik horses born and raised until weaned as free-ranging in a forest reserve react more intensively to handling than stabled youngstock [7]. This behavior demonstrates that even within a breed, the handling effect may differ depending on the intensity of human contact. The maintenance system also influences the horse's reaction to training: pasture-kept horses adapt to training more easily than stalled horses [8].

Differences in personality, behavior, and trainability in the various breeds of today's horses are commonly known [9-11]. It may be that the horses also use different "languages," that is, have their own form of communication to express their response to various stimuli. The intensity of their reaction can be modified. It is important to ask whether horses also differ in their emotional response to the sympathetic training techniques. When choosing the breeds to be compared, similar methods of rearing and exercising should be undertaken, so that the analysis is as reliable as possible.

The objective of this study was to compare the response of Thoroughbred (TB) horses, Purebred Arabian (PA) horses, and Angloarab (AA) horses to a sympathetic training method used during an initial training period, before the horses started their first racing season.

2. Materials and Methods

The study was supported by the State Committee for Scientific Research, Poland (grant N31 502039). Animal care and experimental procedures were in accordance with the European Committee regulations for the protection of experimental animals and approved by the second Local Ethics Review Committee for Animal Experiments at the University of Life Sciences in Lublin, Poland.

2.1. Horses

To ensure similar experimental conditions, we chose three horse breeds which are reared in the same way and from which most of the horses start at races. All the studied horses were meant to be racehorses. The animals used for the study were 72 horses: 24 TBs, 24 PAs, and 24 halfbred AAs. Each breed group consisted of 12 colts and 12 fillies. According to the Polish horse racing rules, which take into account the different rates of particular horse breed growth and development, the training was performed when the TBs were 2 year olds, whereas PAs and AAs were 3 year olds. These were the ages when these horses began training for their first races. During the study, the horses did not show clinical symptoms of any illnesses, nor did the fillies show external symptoms of estrus.

2.2. Horse Management, Training Methods, and Experiment Procedures

Before the experiment, the horses in sex-segregated groups were routinely handled and pastured during the day but not trained. The horses were brought to single boxes a day before training began. The initial sympathetic method training was conducted in fall before the horses were moved to a racetrack. Horses of both sexes were trained one by one, in the same way, in a 16-meter-diameter round pen placed in a *manège*. Only one licensed sympathetic method trainer, who was unfamiliar with the horses, was present. The training method used in the study was the typical freestyle training technique applied in Europe. It consisted of groundwork, schooling the horse to avoid pressure, teaching it to move in a long line, and getting the horse accustomed to novel objects and the equestrian equipment. Various cues were used and their order, repetition, and timing were applied individually, according to each horse's progress. Training sessions lasted 30-60 min each. There was one session a day for 3 days in a row. Training stages were arranged in ascending order, with five possible tasks to be achieved in a day. (1)The concentration stage was necessary for getting the horse to focus on the trainer and the tasks. The trainer's body language, approach and retreat cues, as well as other helpfully taught cues like going around various objects, were involved. (2) Desensitizing the horse's body was done with the use of various objects, for example, putting a saddle blanket on the back and touching different parts of the horse body with a hand or a whip. (3) Preparation for saddling involved putting the saddle on the horse, gently tightening the girth, and moving the horse. (4) Saddling involved the moment of girth tightening and further horse movement made under the saddle. (5) Preparation for mounting included a person leaning across the horse's back, going up a set of stairs, standing near the horse on the stairs to enable the horse to see an object over it, mounting the horse in a straight position with one leg in the stirrup (without getting on the horse and sitting in the saddle).

The trainer stopped each session at the stage adequate to the horse's ability on that particular day. No horse expressed extreme negative emotions that prevented it from continuing the 3-day training. A successful mounting by the rider was also recorded.

2.3. Measurement

Two parameters were used to measure the horse's reaction to the sympathetic training: the length of time (s) necessary to complete a stage and HR (bpm) during the stages. The mean time that had elapsed once the HR exceeded 100 bpm in the whole training was also found. The parameters taken as a whole (not by stages) were compared to judge the rate of overall progress among the breeds. We also analyzed the percentage of horses which completed the required training stages of a particular day. If a horse was able to complete a stage, did so in a shorter