montyroberts

# Scientifically Proven

**'Monty' versus 'Conventional' Training...** A summary of **the astonishing Science Trials results** is released at last!

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# A comparison of the Monty Roberts technique with a conventional UK technique for initial training of riding horses: Summary of our findings

**Dr Veronica Fowler**

Initial training of young horses, in particular the first time a horse is lunged, saddled and ridden have been recently reported in the scientific literature as significant stressors in terms of the impact on the welfare of the horse (Schmidt et al. 2010). Despite this, horse training is still not protected by the law and thus is a largely unregulated profession that one can join without any formal education and practical experience. This is of great concern from both a welfare and ethical perspective and may in part be responsible for the alarmingly high wastage of horse's euthanised due to 'behavioural problems' (Odberg 2005). It is vital therefore that we objectively assess as many methods as possible in order to generate an understanding of what methods we should (and should not) be using particularly during initial training of horses.

To date there are a range of studies which have hugely helped our understanding of certain horse training techniques/equipment which may compromise the welfare of horses. These include the use and misuse of punishment (McGreevy and McLean 2009), hyperflexion of the horses neck (rollkür), the use of one cue for two different behavioural responses (i.e. rein pressure for deceleration and neck flexion) (McGreevy 2007) and lunging (Schmidt et al. 2010). Other techniques such as rapping, gingering, soring, electric shock collars, correction bits, tight nosebands, whips, spurs and hobbles are also identified as threats to welfare (McLean and McGreevy, 2010). Some publications have also suggested that the use of the roundpen and the method of Join-up™ maybe potential stressors due to the belief that these techniques activate the flight response and thus have the potential to induce fear (McGreevy and McLean 2010, Goodwin et al. 2009, McGreevy et al. 2009). Despite a steady increase in studies within this area of equine science there are still many frequently used training techniques which need evaluating in order to obtain a complete and scientifically objective understanding of the positives and negatives associated with initial training of horses.

Two years ago, Dr David Marlin, Dr Mark Kennedy and myself set out to add to the scientific understanding of horse training methods and were the scientists responsible for the design of a study aimed at evaluating the efficacy of two training techniques which had never previously been evaluated by scientific methodology, but were used frequently for initial training of horses. The two methods selected were a UK conventional style of training (CT) and the Monty Roberts technique (MRT). Following the recent announcement that this study has been accepted for publication after a rigorous peer review process, I would like to share a summary of our significant findings within this issue of The Listening Post prior to the full article appearing in Anthrozoös.

**Summary of experimental design**

The study was carried out at Sparsholt College in Hampshire where we had sole access to an American Barn of 18 stables (12m x 12m) and an indoor arena (23.5m x 60m with cushion track. Horses were housed on rubber mats and wheat straw and had *ad lib* access to water and good quality soaked hay.

A selection of 14 untrained horses, consisting of 4 mares and 10 geldings between the ages of 3 and 5 years old were sourced from a variety of non-competition yards in the UK. In order to ensure that each trainer had an equal proportion of horses with similar temperaments, horses were matched based on i) level of difficulty when being lead in hand and ii) behavioural reactivity to a novel object test (sudden opening of an umbrella). The matching (pairing) of the horses was then tested using a statistical test (Mann-Whitney U test) which confirmed that there was no statistical difference between the paired horses. Following this one horse from each pair was randomly assigned either MRT or CT.

Trainers were selected in order to represent two differing styles of training horses. Monty Roberts (MRT) represented his own techniques whilst Phil Roelich, an accomplished and experienced conventional BHS registered horse trainer of 12 years, represented the conventional technique (CT). Prior to the start of the study each trainer identified what equipment they would need in order to train their horses to be ridden, once identified neither trainer was allowed to

deviate from this list. The following equipment was requested by the two trainers. MRT: Roundpen, Dually halter, long-lines, dummy rider, dummy legs, plaited rope one metre in length, girth, saddle, stirrups and stirrup leathers, saddle pad, bridle, reins, Monty Roberts bit, breast plate, side reins, pacifiers, wood tapper, life sized dummy rider, buckstopper, umbrella, clippers, and plastic bag on stick. CT: lunging cavesson, lunge whip, saddle, bridle, reins, girths, lunge line, long lines, numnah, breast plate, side reins, eggbutt snaffle bit, stirrups, stirrup leathers and a 6ft turnout rug. Both trainers had access to all of the equipment they listed from the first day of training. Each trainer was permitted one assistant trainer and allowed 30 minutes per day to work with each horse for 20 days following which the horses undertook a standardised ridden obstacle (figure 1) and flatwork test (figure 2).

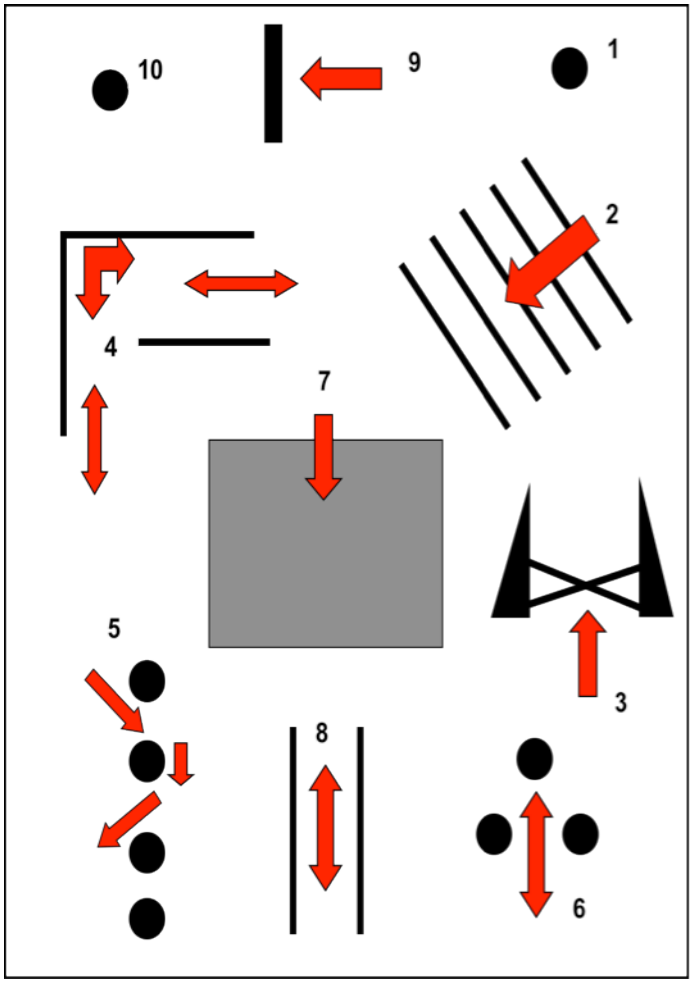


Figure 1. Arena layout for ridden obstacle test. Key to figure: 1) Mounting block; 2) Poles (walk) a-one pole, b-three poles, c-five poles; 3) jump (from trot); 4) L shape (walk) a-forwards, b-backwards; 5) Weaving cones a-walk, b-trot; 6) Clover leaf (walk) a-forwards, b-backwards; 7) Tarpaulin (walk); 8) Parallel poles (walk) a-forwards, b-backwards; 9) Curtain (walk) a-open, b-closed; 10) dismount.

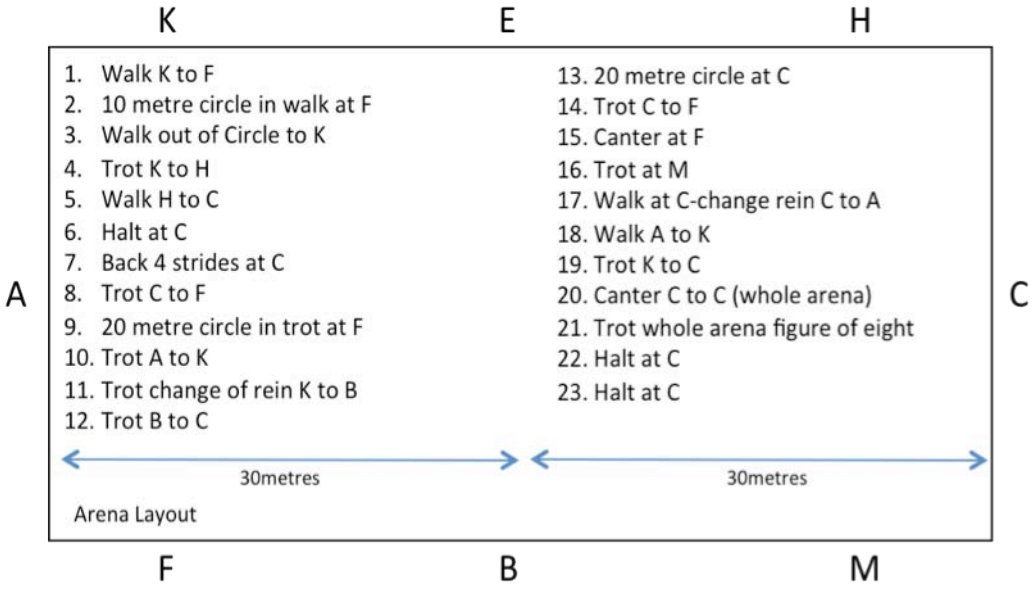


Figure 2. Standardised ridden flatwork test. The standardised ridden flatwork test was used to assess the technical performance of MRT and CT in walk, trot and canter following 20 days of training.

Heart rate during the daily training sessions and the final assessments was recorded using a Polar RS800CX system (Polar Electro, Finland). Each and every training session and standardised ridden test was filmed by a team of dedicated camera operators. In order to assess the technical performance of the horses following training each horse was scored by a panel of judges who were blinded to the nature of the study and the trainers involved. To ensure efficient 'blinding' each judge scored video footage from the two standardised ridden tests during which the horses regardless of training group were ridden in similar tack by either Phil Roelich (CT horses) or by MRT assistant trainer (MRT horses). This study was approved by an independent Ethics Committee at Sparsholt College (Hampshire, UK) prior to being undertaken.

**Results**

**Training progression and heart rate during 20 days of training**

During the early training phase (Days 1-7), all of MRT horses had been Joined-up™ on at least 4 separate occasions, saddled, bridled, longlined and ridden freely inside and outside of the roundpen. Components of the ridden obstacle and ridden flatwork test had also been introduced to training sessions. In comparison all of CT horses had been saddled, bridled and lunged, however one horse had yet to been ridden for the first time. Components of the ridden obstacle and ridden flatwork test had not yet been introduced to training sessions. During the late phase of training (Days 8-20), all of MRT horses were being ridden freely around the arena. All components of the ridden obstacle and ridden flatwork test were now being included in the MRT training sessions and being ridden as per the test. In comparison, all but one (ridden for the first time on day 9) of the CT horses were being ridden freely around the arena. Components of the ridden obstacle and ridden flatwork test had also now been introduced to training sessions. Despite these clear differences in rate of training progression there was no significant difference between either MRT or CT trained horses in minimum, mean or maximum heart rates throughout 20 days of training.

**Effect of training technique on heart rate (bpm) during first saddle and first rider**

All MRT horses were saddled and ridden on day 1. In comparison six CT horses were saddled on day 2 and the remaining horse on day 3. CT horses were ridden on day 4 (3 horses), 5 (2 horses) and the remaining two horse on day 7 and 9.

During first saddle and rider MRT trained horse had significantly lower maximum heart rates (bpm) when compared to CT and lower average heart rates (bpm) when compared to CT. Interestingly, CT horses average heart rates were increased at time of first saddle and first rider in comparison to heart rates observed during 20 days of training whereas MRT horses average heart rates were equivalent or less than at time of first saddle and first rider respectively in comparison to heart rates observed during 20 days of training. It is important to consider that

teaching a horse to lunge is now known to be a significant stressor to a young horse (Schmidt et al. 2010), since CT horses were lunged prior to first saddle and first rider this may explain why maximum heart rates at these two key training points were significantly higher than MRT horses heart rates.

**Effect of training technique on heart rate (bpm) and performance of horses during standardised ridden tests**

MRT trained horses had similar mean heart rates to CT trained horses during the ridden obstacle and during the ridden flatwork test. However MRT horses were awarded significantly higher technical performance scores by the judges for both tests (figure 3).

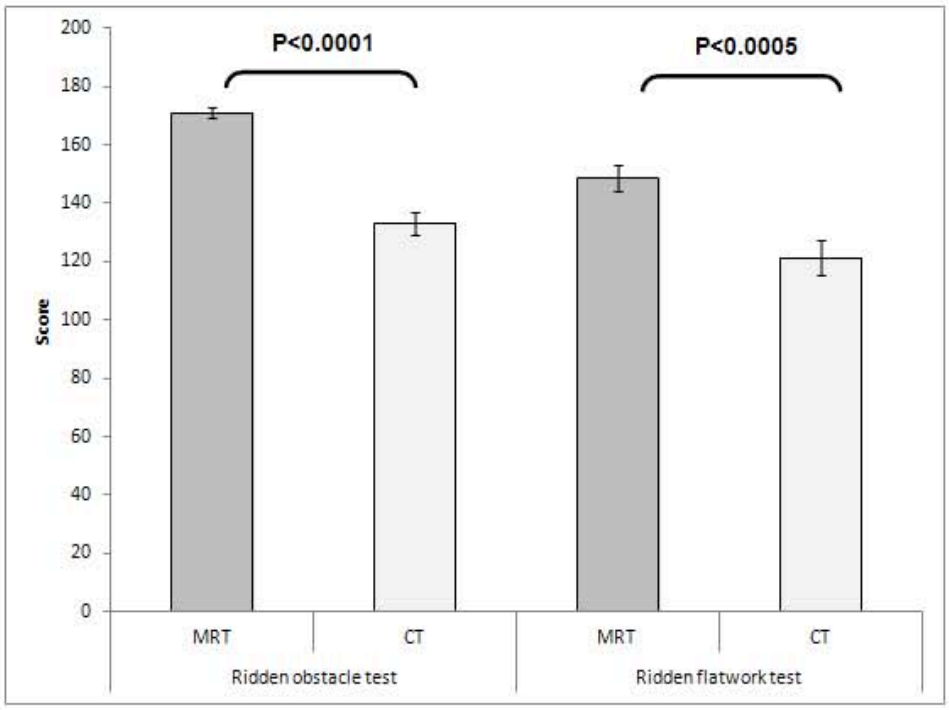


Figure 3. Mean score for MRT and CT trained horses during the ridden obstacle test and ridden flatwork test. Mean score (±SD) for MRT (grey bars) and CT trained horses (white bars) during the ridden obstacle test (MRT n=7, CT n=5) (maximum score 180) and ridden flatwork test (MRT n=7, CT n=6) (maximum score 170). There was significant differences between scores from MRT and CT horses during both the ridden obstacle test (un-paired t-test P<0.0001) and the ridden flatwork test (un-paired t-test P<0.0005).

**Conclusion**

The efficacy of the MRT for initial training of riding horses appears to be greater than CT as determined by significantly lower maximum heart rates during first saddle and first rider and significantly higher performance scores during standardised ridden tests following 20 days of training.

**References**

Goodwin, D., McGreevy, D., Waran, N. And McLean, A. (2009) How equitation science can elucidate and refine horsemanship techniques. *The Veterinary Journal*. 181: 5-11.

McGreevy, P. and McLean, A. (2009) Punishment in horse-training and the concept of ethical equitation. *Journal of Veterinary Behavior*. 4: 193-197.

McGreevy, P. D. (2007) The advent of equitation science. *The Veterinary Journal*. 174: 492- 500.

McLean, A. N. and McGreevy, P. D. (2010) Horse training techniques which may defy the principals of learning theory and compromise welfare. *Journal of Veterinary Behaviour*. 5: 187-195.

McGreevy, P. D. and McLean, A. N. (2010) Equitation Science. Wiley-Blackwell, Oxon. 

McGreevy, P. D., Oddie, C., Burton, F.L. and McLean, A.N. (2009) The horse-human dyad: Can we align horse training and handling activities with the equid social ethogram?. *The Veterinary Journal*. 181: 12-18.

Odberg, F. O. (2005) The evolution of schooling principals and their influence on the horses welfare. In: *Proceedings of the First International Equitation Science Symposium*. Melbourne, Australia. 26th-27th August 2005.

Schmidt, A., Aurich, J., Mostl, E., Muller, J. and Aurich, C. (2010) Changes in cortisol release and heart rate and heart rate variability during the initial training of 3-year-old sport horses. *Hormones and Behaviour*. 58: 628-636.