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39TH ASIAN RACING CONFERENCE
MELBOURNE 2023

Emotional Satisfaction and Safety vs Excitable and Intractable

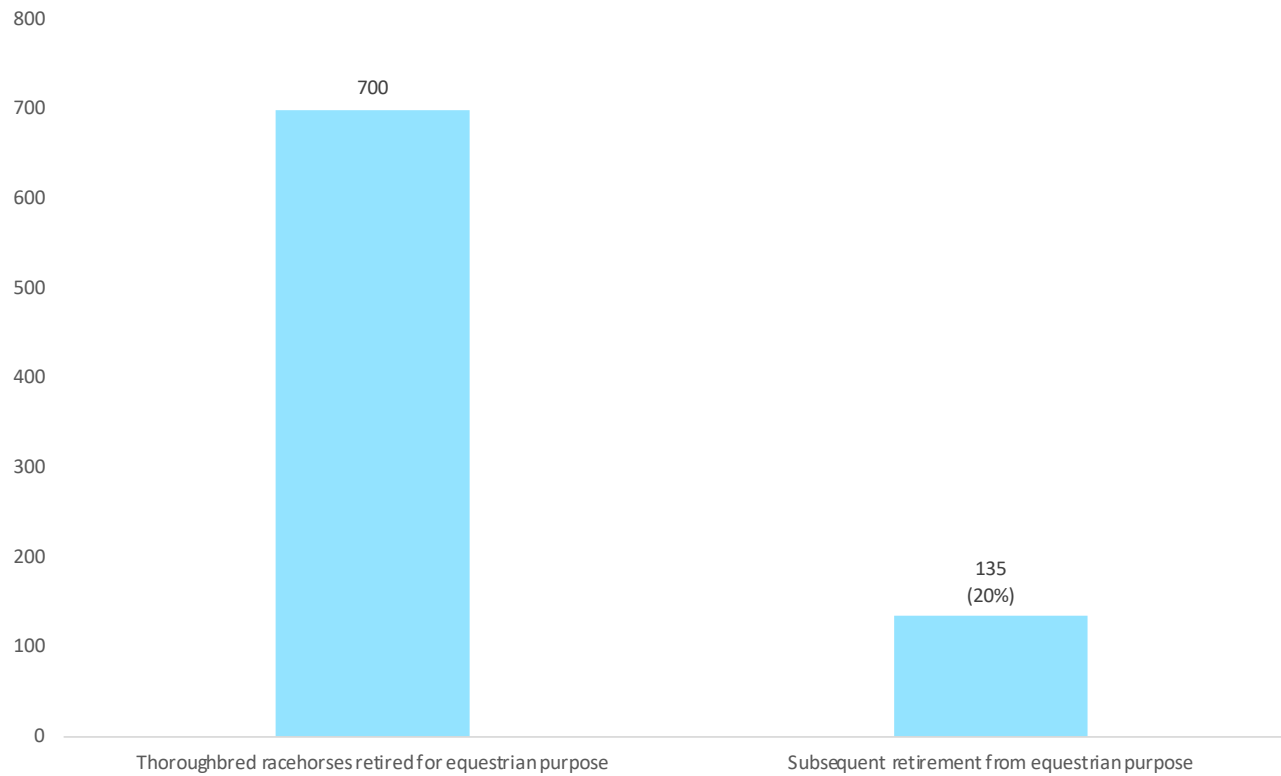


- The majority of equestrian participants expect emotional satisfaction and safety in equitation (Górecka-Bruzda et al., 2011; Rozempolska-Rucińska et al., 2013).
- A view in the racing and equestrian communities in Korea : Thoroughbreds are excitable and intractable to training for equestrian purposes and/or are dangerous.

Flow of Thoroughbred Racehorses



Average number of horses between 2015 and 2017



Temperament of Horses and Equitation



- **Temperament**

- ✓ set of behavioural tendencies
- ✓ relatively stable across various kinds of situations



- **The stable nature of temperament**

- ✓ predictable individual's behavior
- ✓ In specific situations

- **Equine temperament**

- ✓ important when considering the use of a horse



- **For equestrian riders**

- ✓ emotional satisfaction
- ✓ safety



Screening for Temperament



- Startle responses are defensive reflexes induced by unexpected stimuli.
- Evaluation of horse temperament and autonomic changes by the response to a plastic bag (a complex stimulus combining auditory, visual, and tactile elements)
- The Institutional Animal Care and Use Committee guidelines : acceptance No. SNU-211217-2

Purpose of the Study



- To develop a procedure for a preliminary assessment of retired thoroughbreds for their suitability for equestrian sports,
- To suggest selection parameters which may help identify retired thoroughbred horses best suited for equestrian sports.



Practical tools to screen for temperament and the importance of transition training



Response of a horse in the Adaptive group before the training



Practical tools to screen for temperament and the importance of transition training



Response of a horse in the Vigilant group before the training



Practical tools to screen for temperament and the importance of transition training



Response of a horse in the Adaptive group after the training



Practical tools to screen for temperament and the importance of transition training



Response of a horse in the Vigilant group after the training



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Behavioral scoring system during the novel object test (Munsters et al., 2012)



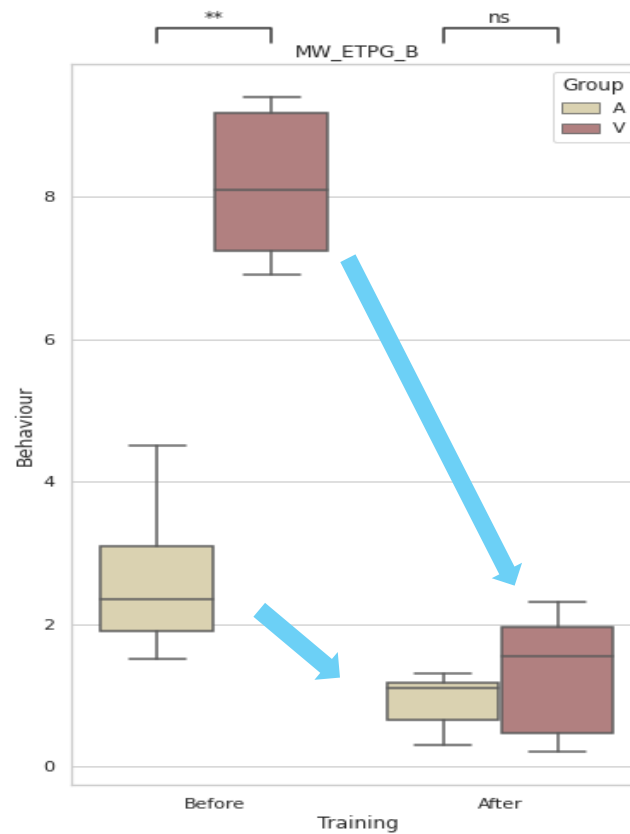
- 12 horses were divided into two groups based on behavioural scores assigned before the training.

	Behavioral score	Description
Group A(Adaptive) : Behavioural score between 0 and 5	0	Completely relaxed, ears relaxed towards front, neck relaxed, stride normal
	1	Relaxed, ears pointed to front, neck relaxed, stride normal
	2	Slightly excited, ears pointed to front, neck slightly elevated, stride normal
	3	Slightly excited, ears pointed to front, neck elevated, stride normal
	4	Slightly excited, ears pointed to front, neck elevated, not 'on the bit', stride normal
	5	Moderately excited, ears pointed to front, neck elevated, not 'on the bit', looks to side (at object), stride normal
Group V(Vigilant) : Behavioural score between 6 and 10	6	Moderately excited, ears pointed to front, not 'on the bit', stride shortened
	7	Excited, ears back, not 'on the bit', angled towards object, stride shortened
	8	Excited, ears back, neck stretched, not 'on the bit', stride considerably shortened
	9	Anxious, ears back, neck stretched, not 'on the bit', flees slightly from object or goes backwards
	10	Very anxious, ears back, neck stretched, not 'on the bit', flees from object in trot or gallop (minimum of five strides)

Results - Behavioural Score

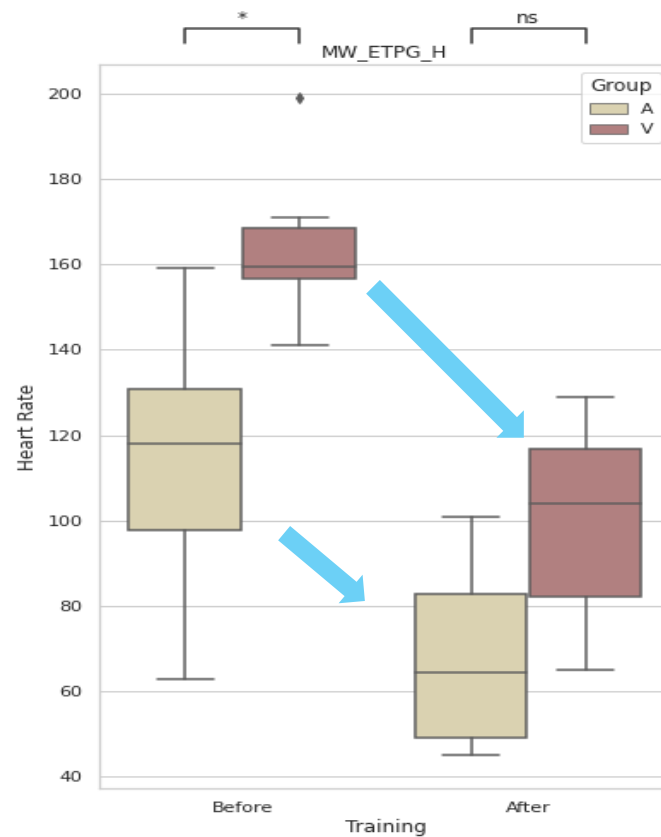


Behavioral score was significantly different between the groups before the training



Behavioral score was NOT significantly different between the groups after the training

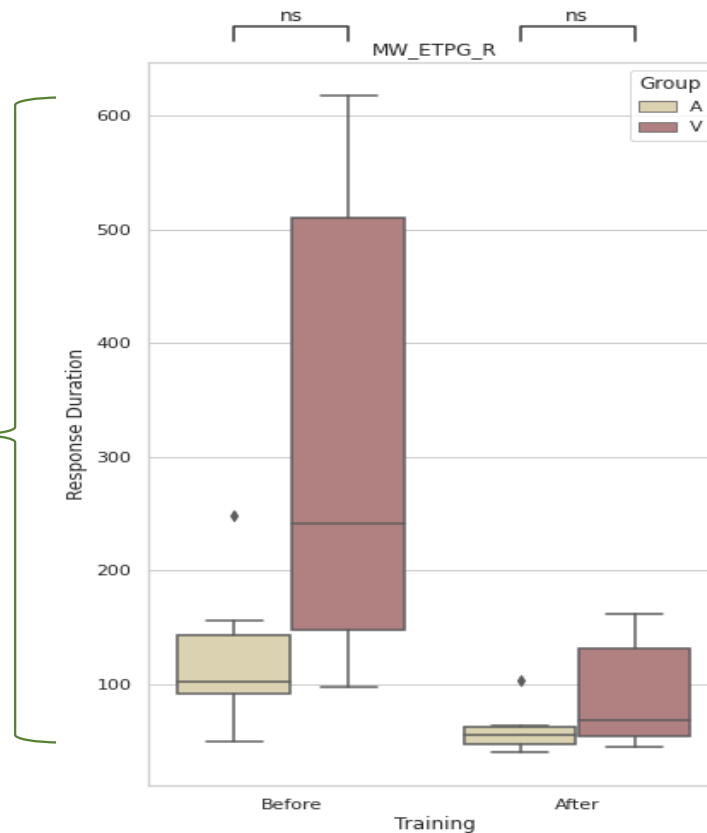
Results – Peak heart rate



Peak heart rate was significantly different between the groups before the training.

Peak heart rate was NOT significantly different between the groups after the training

Results – Response duration



Response duration was NOT significantly different between the groups before the training

Response duration was NOT significantly different between the groups after the training

Correlations in variables studied in the novel object test



	Behaviour	Heart rate	Response duration
Behaviour	1.00	0.86	0.78
Heart rate	0.86	1.00	0.71
Response duration	0.78	0.71	1.00



Highlights



- This study explored scientific parameters for selecting retired racehorses that will be suitable for equestrian sports.
- The 3-month transition training had a significant desensitizing impact in both horses in the adaptive and the vigilant groups.
- The startle model employed in this research is a repeatable, effective, and practical method that anyone can apply.
- Peak heart rate in combination with behavioral score are useful criteria to assess racehorse temperament.
- Findings will enhance Thoroughbred racehorse welfare and equestrian/leisure rider safety.



Appreciation



- Financial support : Korea Racing Authority
- Co-researchers
 - Cheju Halla University : Byung-Sun Kim, Joon-Gyu Kim, Sung-Jun An
 - Seoul National University : Kyung-Eun Lee, Hang Lee
 - IFAR : Eliot Forbes
- Audience in this room

