

The development and validation of novel behavioural assessment methods for equine welfare

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Animal welfare, and the acceptable treatment of animals (sometimes called 'social licence to operate'), can be an area where people have strong views and opinions. To be able to provide good welfare for the Thoroughbred racehorse, however, we need to be able to understand what they do and do not like and how to make sure they are mostly able to have good experiences in life. Thus, in order to improve welfare for any animal we need to be able to collect evidence on these questions to support decision making. We can then make decisions based on what is truly best for the individual animal, rather than making decisions based on our own subjective opinions.

To do this we need reliable, robust and objective measures that can allow data to be collected under different conditions. Horse behaviour can be one of the best measures when asking these questions. In general, horses tend to approach things that they like, and work to avoid things they do not like, so this can give us a way to ask the horse about its preferences. An alternative approach, which can be more practical, is to use the animal's body language as a way to understand how the horse feels about any situation. Horses use movements and behaviour to communicate with one another, and we can make use of this ourselves to assess objectively what the animal is experiencing. Subtle changes in responses, such as ear posture, facial expression, vocalisations, movements and muscle tension can all convey information that relates to how the animal feels about the situation. Using sophisticated and detailed measures of these behavioural responses, may allow us to 'read' the animal's body language, and gives us an insight into horse welfare.

These approaches have been developed and validated in the livestock industry, and have been included in welfare plans/protocols by some Government agencies and major supermarkets. This study will develop specific tools and approaches that will let us make these measurements in a way that is reliable, so that anyone making the measures would reach a similar conclusion. Engagement of staff from the racing industry throughout their development will ensure they are feasible, such that they can be utilised in many different contexts and situations where racehorses might be kept or managed. The development of these tools will then provide the opportunity for individualised approaches to assessing the welfare of each horse on a yard, and can be applied in future research to understand the impact of training, and management of racehorses on welfare throughout their lives. Ultimately, this will help inform the optimal management of individual animals in the unique circumstances of each yard.