# Accepted Manuscript

What information might be in the facial expressions of ridden horses - adaptation of behavioural research methodologies in a new field

Karina B. Gleerup, Pia H. Andersen, Jennifer Wathan

PII: S1558-7878(17)30203-4

DOI: 10.1016/j.jveb.2017.12.002

Reference: JVEB 1106

To appear in: *Journal of Veterinary Behavior*

Received Date: 9 October 2017

Revised Date: 4 December 2017

Accepted Date: 6 December 2017

Please cite this article as: Gleerup, K.B., Andersen, P.H., Wathan, J., What information might be in the facial expressions of ridden horses - adaptation of behavioural research methodologies in a new field, *Journal of Veterinary Behavior* (2018), doi: 10.1016/j.jveb.2017.12.002.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

# What information might be in the facial expressions of ridden horses - adaptation of behavioural research methodologies in a new field

Karina B. Gleerup[1], Pia H. Andersen[2] and Jennifer Wathan[3]

[1]Department of Clinical Veterinary Sciences, University of Copenhagen, DK-2630 Copenhagen, Denmark
[2] Department of Clinical Sciences, Swedish University of Agricultural Sciences, Uppsala 750 07 Sweden.
[3]School of Psychology, University of Sussex, Falmer, Brighton, BN1 9RH, United Kingdom

Corresponding author: Karina B. Gleerup, email: kbg@sund.ku.dk

Abstract
Horses being ridden when in pain is a welfare concern which deserves investigation. Transfer of behaviour based pain evaluation systems developed for clinical science to ridden horses, must be done with cautiousness, and research methods specific for evaluation of pain in equitation science have not been validated. In this commentary piece we present some concerns about the study designs of two recent papers evaluating facial expressions in ridden horses.

Keywords
Facial expressions, EquiFACS, pain face, ridden horses, lameness, equitation science

In two recently published articles in the *Journal of Veterinary Behavior: Clinical Applications and Research*, facial expressions of ridden horses were captured from still images and classified into an ethogram (Mullard et al., 2017; Dyson et al., 2017). This ethogram was then used to try to determine if there were differences in facial expression in lame and non-lame horses when ridden, and the resultant differences in facial expression were adapted into a pain scoring system for ridden horses.

Applying facial expression analysis on ridden horses for improved recognition of pain in relation to lameness is a welcomed move towards an integration of veterinary and behavioural research. However, choosing an appropriate method for studies integrating two research areas is challenging, and we have some concerns about the study designs of these two papers. Some of these issues were indeed highlighted by the authors (e.g. the use of still images). However, we would like to further discuss the implications these issues may have on the conclusions of the studies, alongside concerns for future studies employing the proposed ethogram and pain scoring system.

Facial expressions are dynamic and often complex signals that can change rapidly in response to a range of environmental stimuli and internal affective states (Hintze et al. 2016; Boissy et al., 2011). The facial expressions of ridden horses may reflect responses to a range of stimuli, including responses to the signals from the rider, pressure from the tack (Doherty et al., 2017, Fenner et al. 2016), and distubances in the surroundings (e.g., busy or quiet training area), in addition to pain. It is therefore imperative to take these complications into account when designing studies evaluating facial expressions in ridden horses. A carefully prepared protocol must include

Download English Version:

https://daneshyari.com/en/article/8484227

Download Persian Version:

https://daneshyari.com/article/8484227

Daneshyari.com