Contributed Presentation

Comprehension of human pointing gesture in domestic horses: Effect of training method

Bartošová J.,[1*,] **Romana Dvoøáková**[2]**, Marina Vanèatová**[2]**,
Ivona Svobodová**[3]

[1]**Department of Ethology, Institute of Animal Science, Pøátelství 815, CZ-104 00 Praha Uhøínìves, Czech Republic**
[2]**Faculty of Humanistic Studies, Charles University Prague, Husníkova 2075, CZ-158 00 Praha 13 -Stodùlky**
[3]**Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences Prague, Kamýcká 129, CZ-165 21 Praha 6 – Suchdol**

Horses have been considered to rely on human gesticular cues (McKinley and Sambrook 2000, Anim Cogn 3:13–22; and recently Maros et al. 2008, Anim Cogn 11:457-466), however large variability among individuals tested in two-ways object choice tasks was found. Part of the horses in those studies (40 and 26 %, respectively) even failed to pass adequately through the training session which preceded the testing phase and served to learn a horse to carry out a task. Therefore, we alternated the experimental design designed by McKinley and Sambrook (reduced number of testing trials to 10 per horse to keep its attention, applied just one, a dynamic-sustained pointing cue with touching the bucket, etc.), and tested an effect of training method, sex, age, and learning on proportion of correct choices. We hypothesised, that horses trained by „traditional" method (TTM) will get lower score than those experienced with „horsemanship-based" methods (HTM), being characterized by closer and more frequent human-horse contact and also extended exercising „from the ground" with frequent using of arms cues. Despite simplification of the methods, only about 60 % of tested horses passed through the training phase (i.e., learned to come to and upturn the bucket with hidden treat). Successful completion of training phase was reached regardless of age or sex of a horse, but by the training method; HTM horses ran better compared to TTM ones. No significant effect of age, sex, or learning (i.e., trial order within all 10), and training method as well was found on proportion of correct trials in the testing phase. Horses made a correct choice in more than 70% of trials. Individual scores ranged from 50 to 100 %. In conclusion, horses showed high level of comprehension of human pointing gesture, regardless of their sex or age. No effects of training method or learning process within a test suggest low impact of handling and learning on the level of comprehension at least of the most vivid human pointing gesture. Horses trained by methods based on „natural human-horse communication" did enhance cooperation with people.

Key words: Human-horse communication, Pointing, Training methods, Horsemanship

corresponding author: Jitka Bartosova bartosova.jitka@vuzv.cz