



Talking to cows: Reactions to playback and 'live' talking during human-cattle interactions

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Background

The quality of the animal-human relationship and the affective state of animals can be improved by gentle interactions with humans such as stroking and talking. During experiments, the use of a recording of the vocal stimulus might increase standardization but the stimulus might be perceived differently by the animals than 'live' talking, which is closer to practice.

We expected that heifers react differently to stroking with 'live' talking than stroking while playing a recording of the experimenter talking in a gentle voice.

Animals, Material & Methods

- 28 Simmental heifers (aged 6-24 months)
- Habituated to experimental treatment & equipment
- Treatment:** stroking plus vocal stimulation: 'live' talking or 'playback' via mobile loudspeaker
- 3 trials per animal & treatment → 168 trials per experiment
- 3 phases of 3 minutes each (Fig. 1)
- Within-subject design
- Behavioral variables: neck stretching, changes of ear position



Pre-stroking
3 min, baseline



Stroking
3 min, reactions



Post-stroking
3 min, carry-over effects

Fig. 1: Experimental design

Results

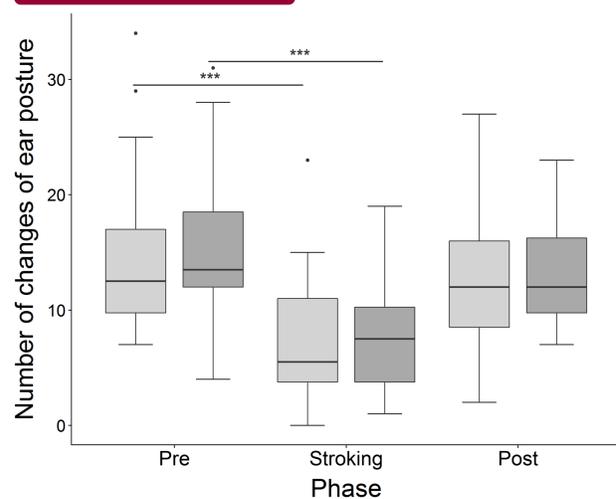


Fig. 2: Changes of ear posture per phase, according to treatment.

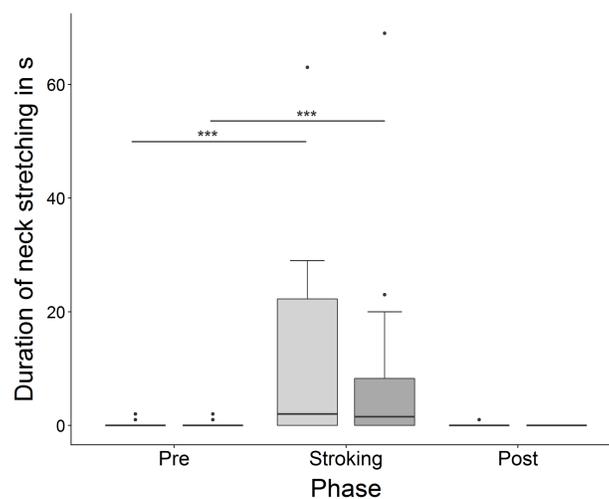


Fig. 3: Neck stretching per phase, according to treatment.

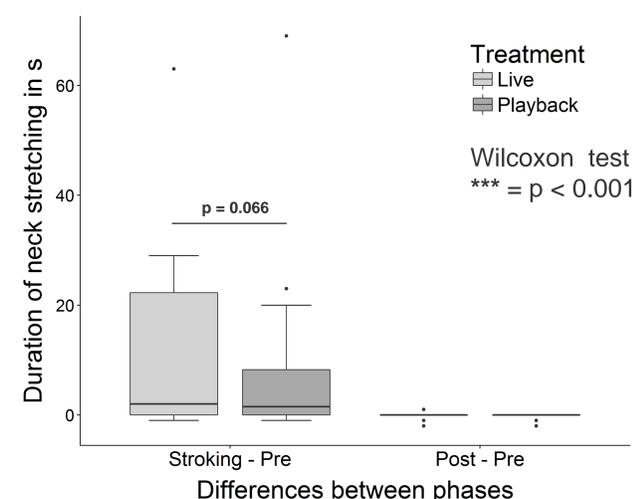


Fig. 4: Differences in neck stretching between phases, according to treatment.

Discussion & Conclusion

Number of ear changes

- Decrease from Pre to Stroking (Fig. 2)
- In literature
 - ≠ Increase during stroking Proctor & Carder, 2014
 - = Decrease during positive experience in sheep Reefmann et al., 2009
- Reduced alertness during stroking

Neck stretching

- Associated with social grooming
- Increase from Pre to Stroking (Fig. 3)
 - Positive perception of stroking treatment
- Trend to stronger increase during 'live' talking (Fig. 4)

→ Live talking might be perceived as more positive

- Different auditory perception of the recording?
- Change in the experimenter's body language?