# The effect of breed group on behaviour, dog-owner relationship and stress-synchronisation

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# Introduction

Humans and dogs have a long history of a strong bond to each other and they are even shown to synchronise in their long-term stress levels. Today, we have over 400 different dog breeds selected for various traits and while the ancient breeds might exhibit remnants of wolf-like behaviours, some hunting breeds are bred for working independently of human guidance.

#### Aims

The human-directed behaviour of ancient dog breeds and independently working hunting dog breeds were compared in an unsolvable problem task. Also, the long-term stress levels for dog-owner dyads, and their relationship were assessed.

# Methods

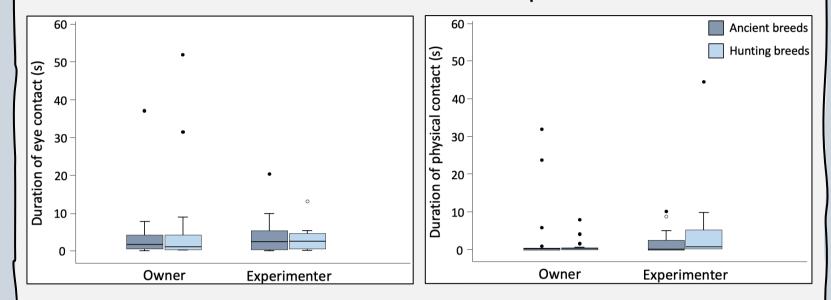
## Unsolvable problem task

The dogs were presented with an apparatus where one out of the three compartments was unsolvable. Human-directed behaviours such as physical contact

# Results

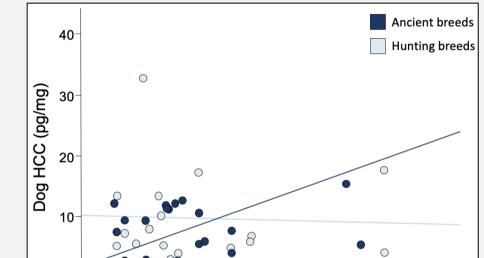
#### Unsolvable problem task

The two breed groups were similar in their human-directed behaviour towards the owner and the experimenter.



#### Long-term stress & dog-owner relationship

Ancient breeds dog-owner dyads correlated in their long-term stress levels. However, hunting breeds and their owners did not.



and eye contact were scored for three minutes.





## Long-term stress

Hair cortisol concentrations (HCC) were assessed for both dogs and owners, reflecting their long-term stress levels.

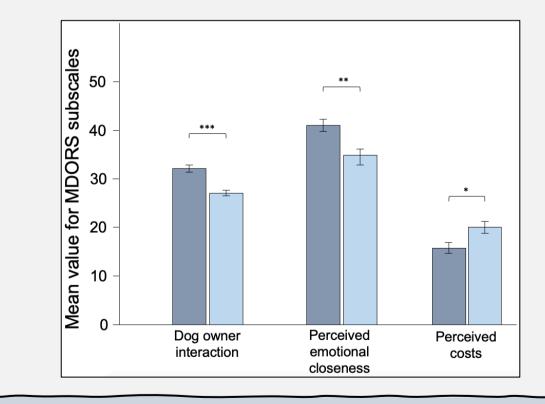
### Relationship survey

All owners completed the validated *Monash Dog Owner Relationship Scale* regarding their perceived relationship to their dogs.





The human-dog relationship differed between breed groups. Owners with hunting breeds seem to have fewer positive interactions and a weaker emotional bond with their dog, and they are considering their dogs as being more costly compared to owners of ancient breeds.



# Conclusion

- Ancient breeds and hunting breeds were similar in their human directed behaviour.
- Ancient breeds dog-owner dyads correlated in their long-term stress levels while hunting breeds did not. One possible reason for this might be the differences in dog-human relationship.