

# Personality assessment and interactions in eight captive bottlenose dolphins (*Tursiops truncatus*)



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## Background and Aim

Assessing personality in individual animals can help researchers gain a deeper understanding about the species that they study. Knowing their needs can also provide a helpful tool in future conservation and reintroduction programmes as well as zoo management and training. In social species, such as bottlenose dolphins, it is also of interest to take the interactions between individuals into consideration.

**Aim:** Investigate the personality and interactions of eight bottlenose dolphins.

## Methods

Record the amount of time (out of two hours) each dolphin engage in various behaviours. The behaviours are interpreted and sorted into the five personality factors.

## Main results

The dolphins scored highest in the factors Agreeableness (+) and Neuroticism (-), meaning that the dolphins expressed mainly affiliative behaviour or were calmly swimming by themselves.

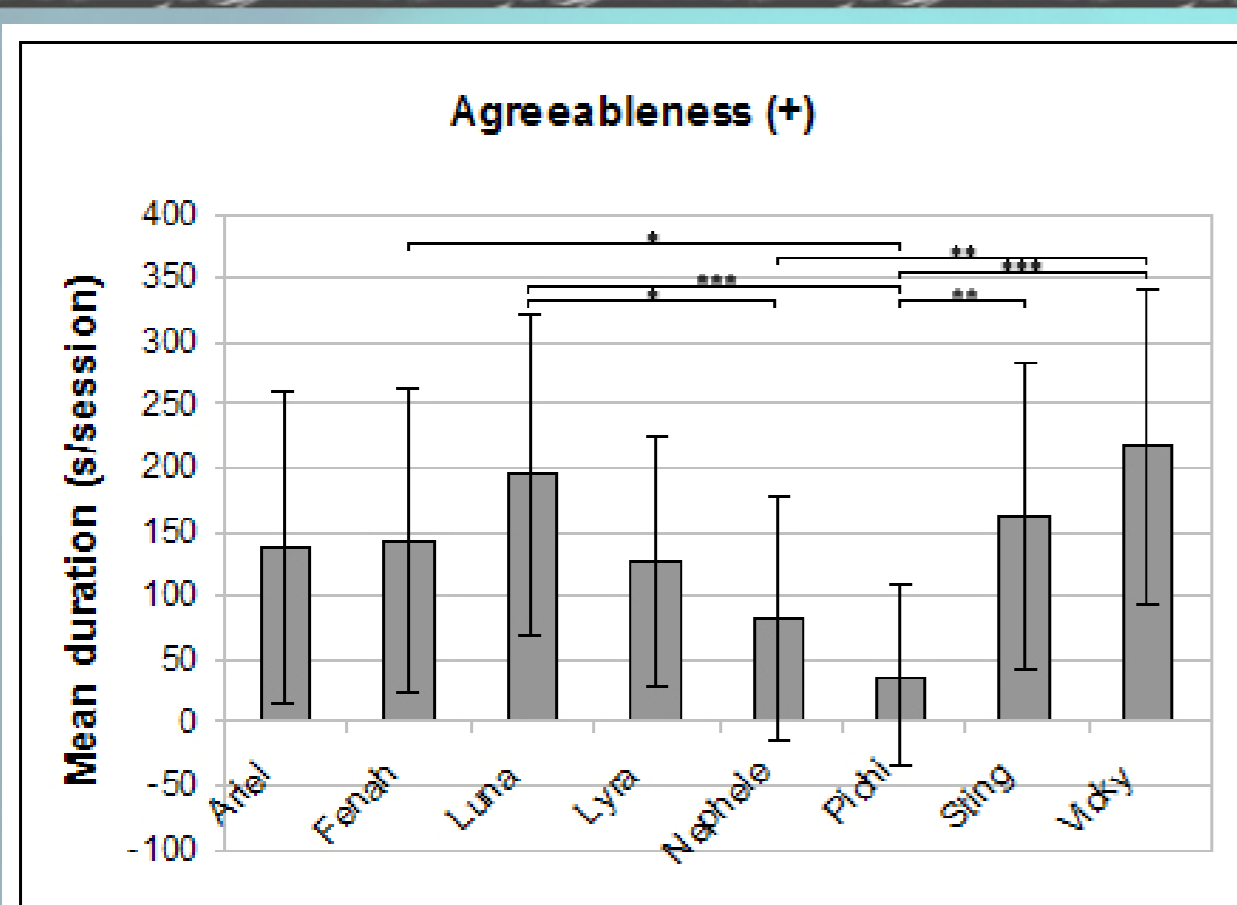
The dolphins also displayed behaviours indicating curiosity, playfulness and, although very rare, some threatening behaviour.

Interactions were observed to occur the most between mothers and calves.

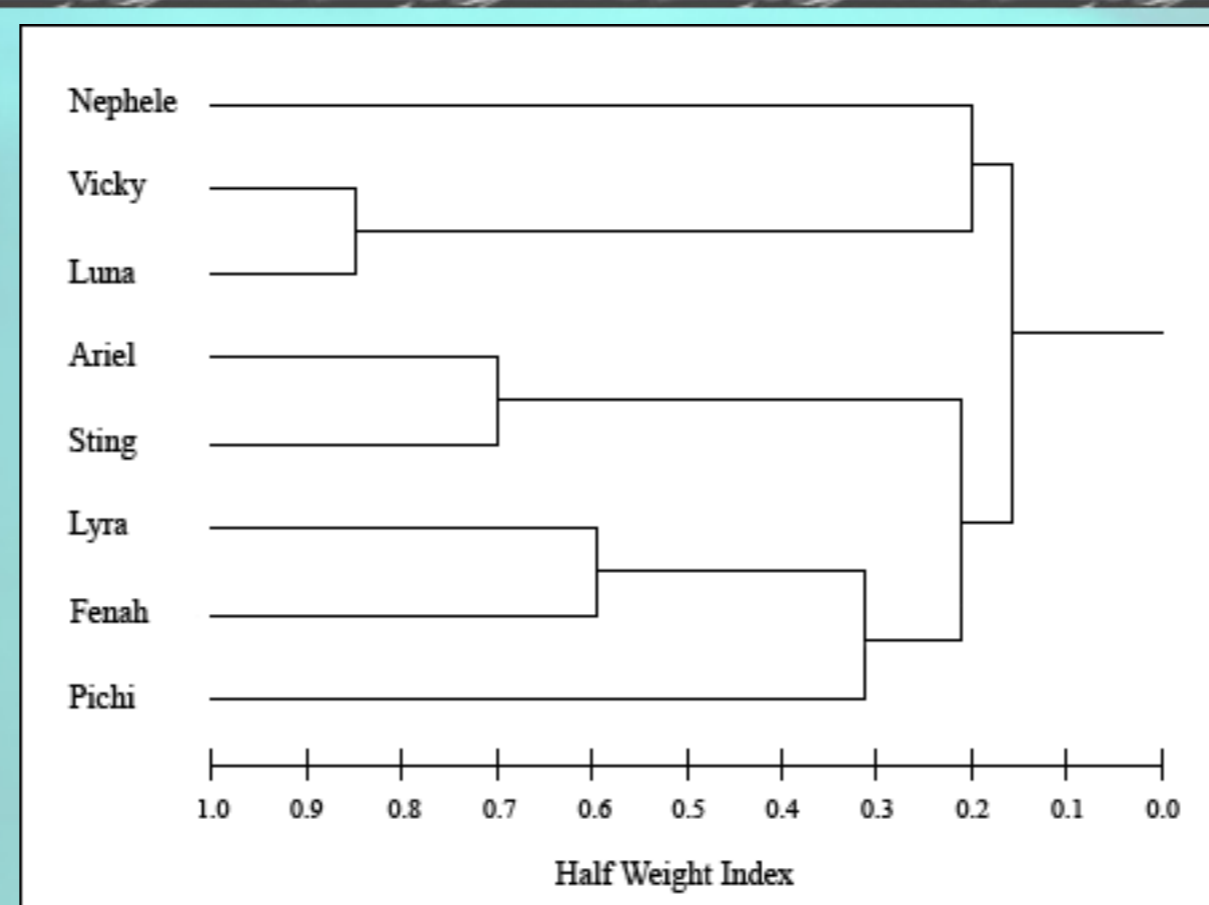
## The five personality factors

The five factors consists of both positive and negative traits.

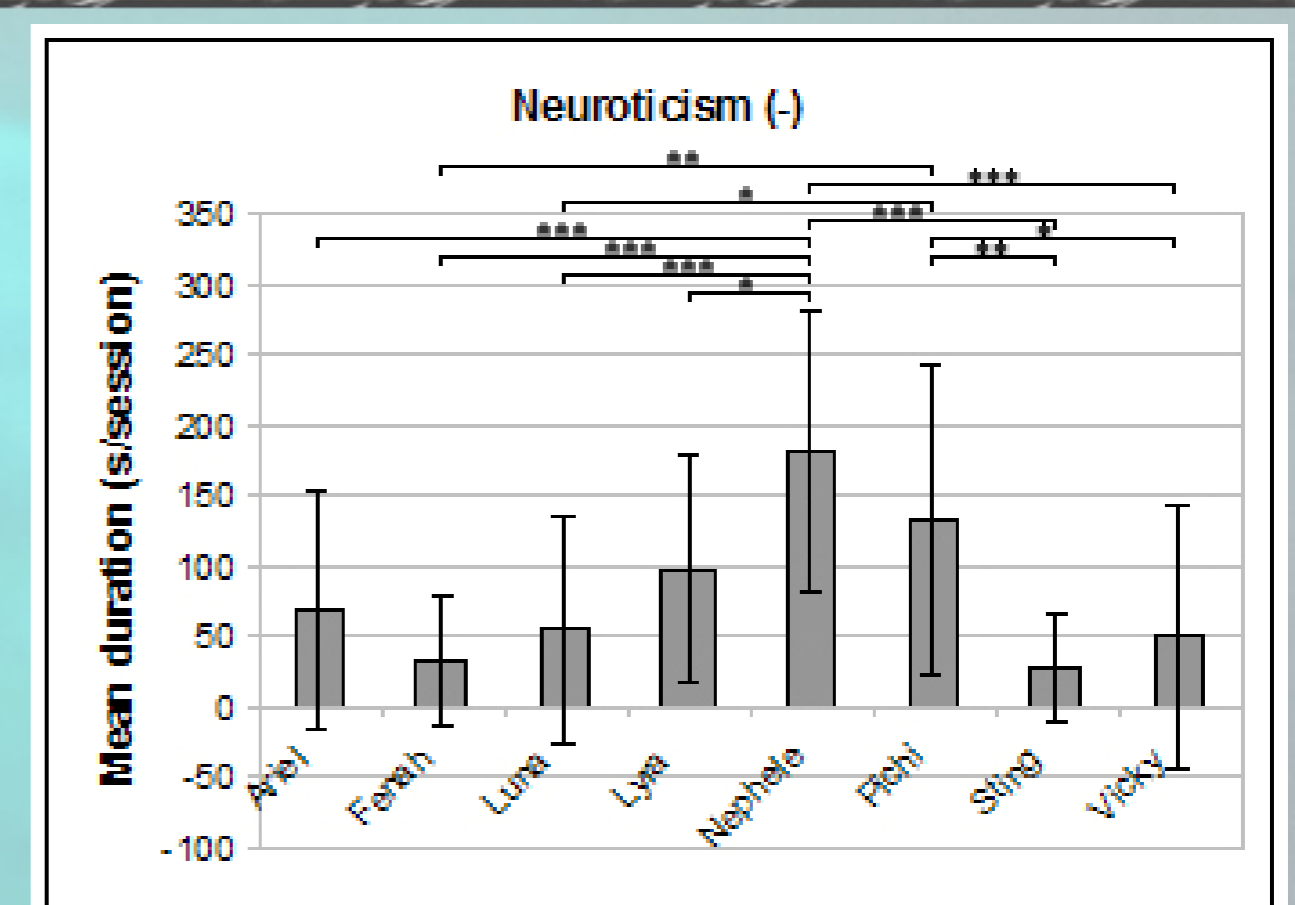
- **Openness to experience**  
(+) Curious, creative  
(--) Not exploratory
- **Conscientiousness**  
(+) Cautious, alert  
(--) Lazy, unreliable
- **Extraversion**  
(+) Playful, active  
(--) Timid, quiet
- **Agreeableness**  
(+) Affiliative, cooperative  
(--) Inflexible, selfish
- **Neuroticism**  
(+) Aggressive, threatening  
(--) Relaxed, calm



The mean durations in seconds the dolphins expressed affiliation per 5 min observation. This was one of the factors with significant differences between the individuals. Mean ( $\pm$  SD)



Coefficient of association where 1 = always seen together and 0 = never seen together. The three dyads represents mother and calf relationships.



The mean durations in seconds the dolphins were swimming calmly alone per 5 min observation. This was one of the factors with significant differences between the individuals. Mean ( $\pm$  SD)



## Conclusion

The eight dolphins at Kolmården are mainly affiliative and calm. Interactions were seen most between mothers and calves.