

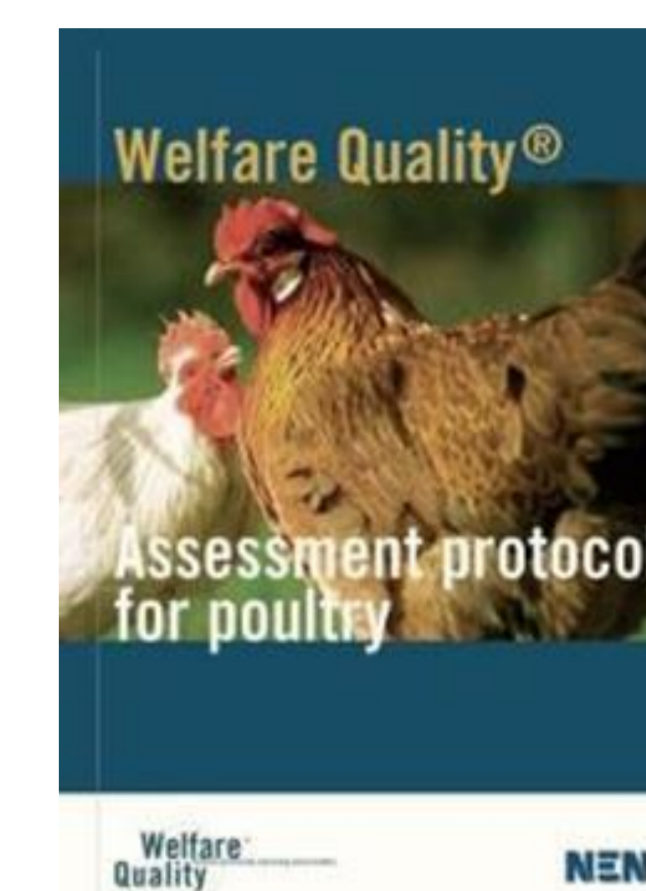
Effect of daytime and age on the approach and avoidance behaviour of commercial broiler chicken

Franziska Hakansson

IFM Biology, Linköping University, fraha352@student.liu.se

BACKGROUND

Protocols assessing the on-farm welfare status (Welfare Quality®) have implemented the assessment of the human-animal-relationship, however, detailed knowledge about limitations of the applied tests is scarce.



OBJECTIVE

This study aimed at investigating variables that might influence the performance of commercial broiler chicken in applied fear tests.

METHODS

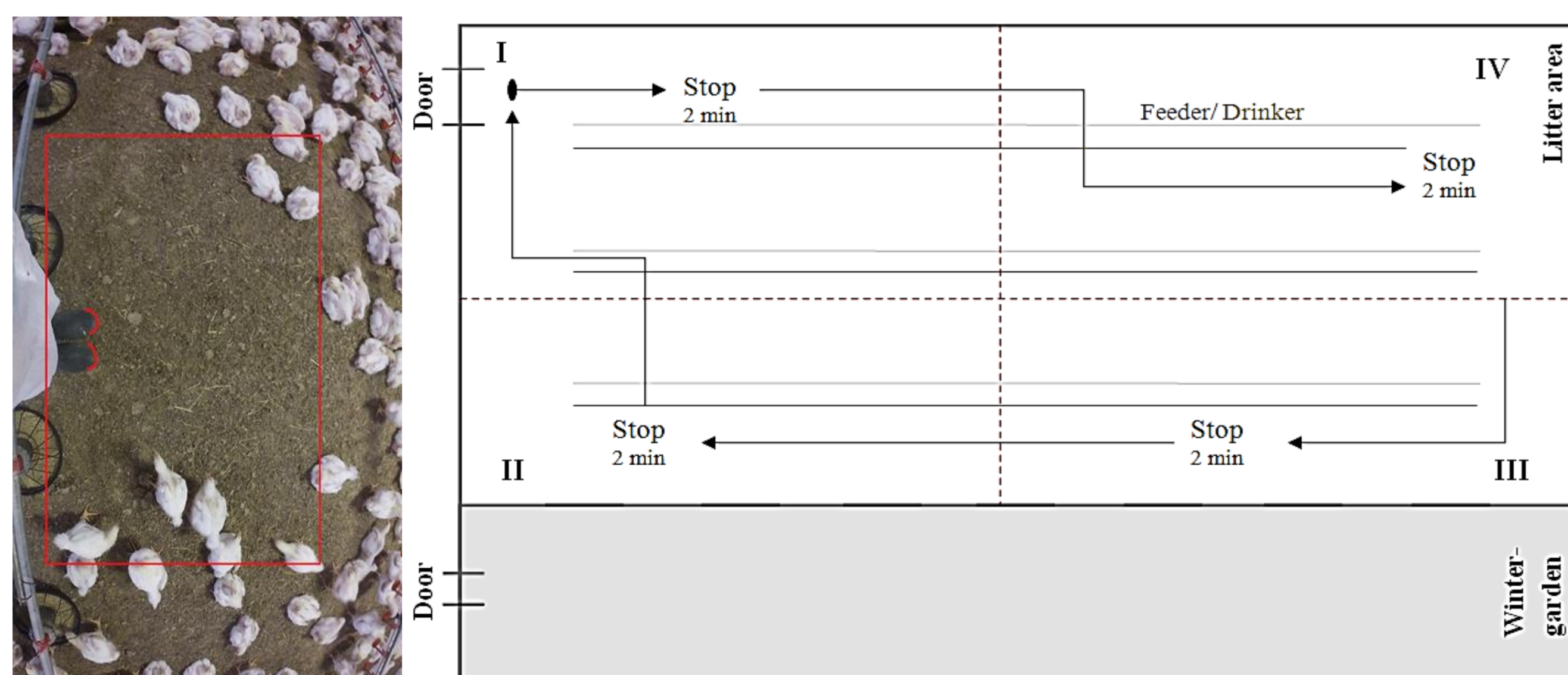
On-farm studies were carried out in 14 commercial meat chicken flocks of three Danish and one Dutch producer.

A forced and a voluntary approach test were conducted to measure the avoidance distance (AD) and the voluntarily approach (VA) towards an observer:

- during morning and evening hours
- at three different ages (6- 12d, 21- 24d & 33- 36d)
- at four different locations in the house (I- IV)

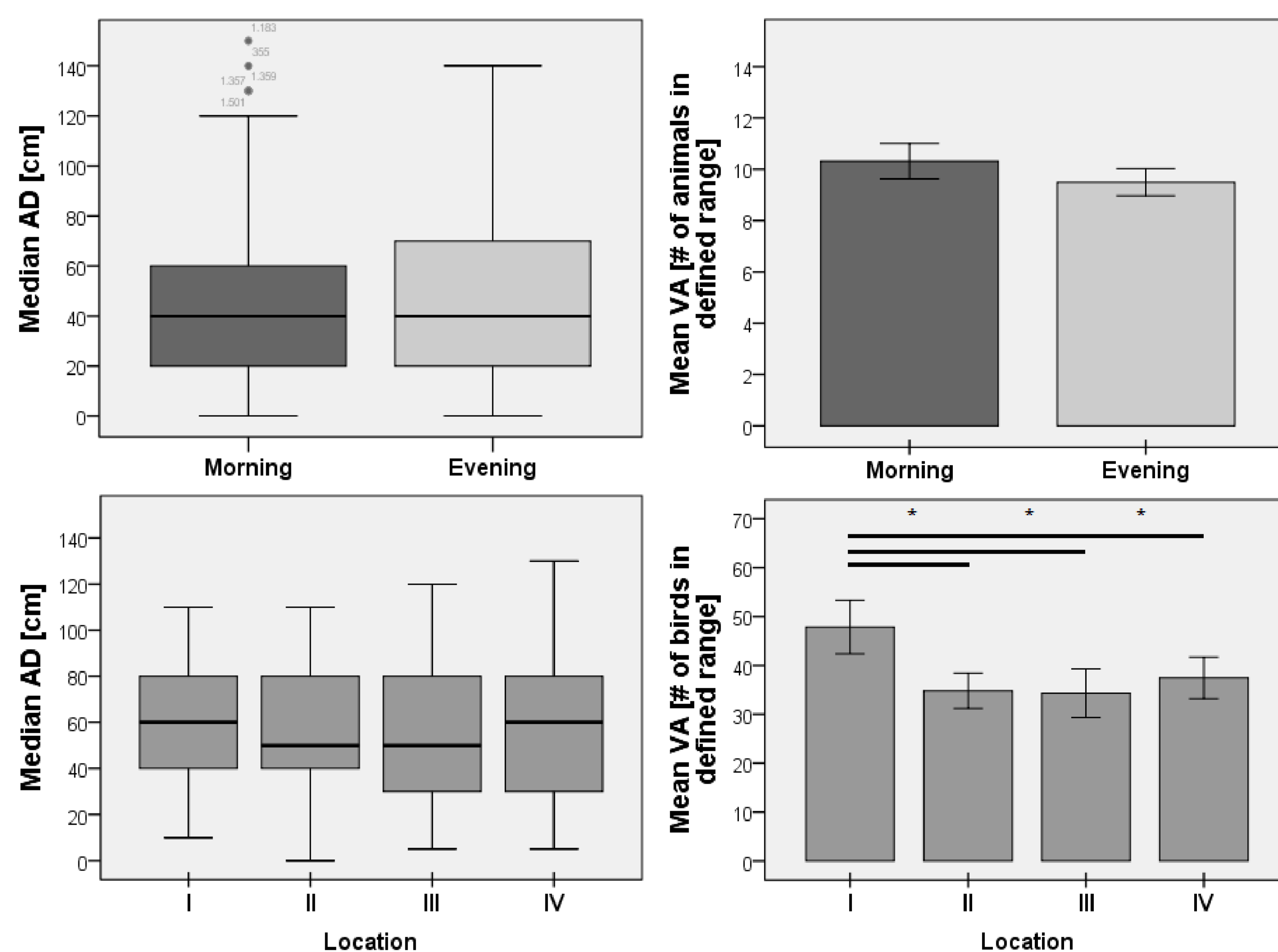


Left: Stationary person test (SPT). Right: Avoidance distance test (ADT).



Left: STP video image of range (80 x 100 cm). Right: Non-scaled chicken house with test set-up.

RESULTS



Left: Median avoidance distance (box: interquartile range; bars: 25th & 75th percentile; dots: extreme values). Right: Mean voluntary approach, measured as number of animals in defined range (error bars: 95% confidence interval).

Daytime

- Overall, no effect on AD or VA
- At different ages, VA was affected by daytime, but not consistent

Age

- AD and VA changed depending on age, with a peak at three weeks

Observer location

- VA higher in the area of the entrance door
- AD was not effected

CONCLUSION

The applied tests appear to be potentially applicable independent of daytime restrictions. However, the birds age and the observer location in the house may influence the outcome of the tests.

RECOMMENDATION

Data collection spots should be evenly distributed in the whole house. Tests applied to birds of different age should not be compared.