

Effects of Stress and Balance of Options on Decision-Making in Laying Hens

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Background

Choice tests are widely used within animal welfare research. It is therefore important to understand what may influence the decision-making process and stress could be a factor.



Aim

1. To investigate the physiological effects of stress on decision-making
2. To monitor responses during different types of decisions (i.e. balanced and unbalanced)

Methods

Heart rate and thermal images (see upper corners) were monitored whilst hens made different types of decisions in a T-maze test.

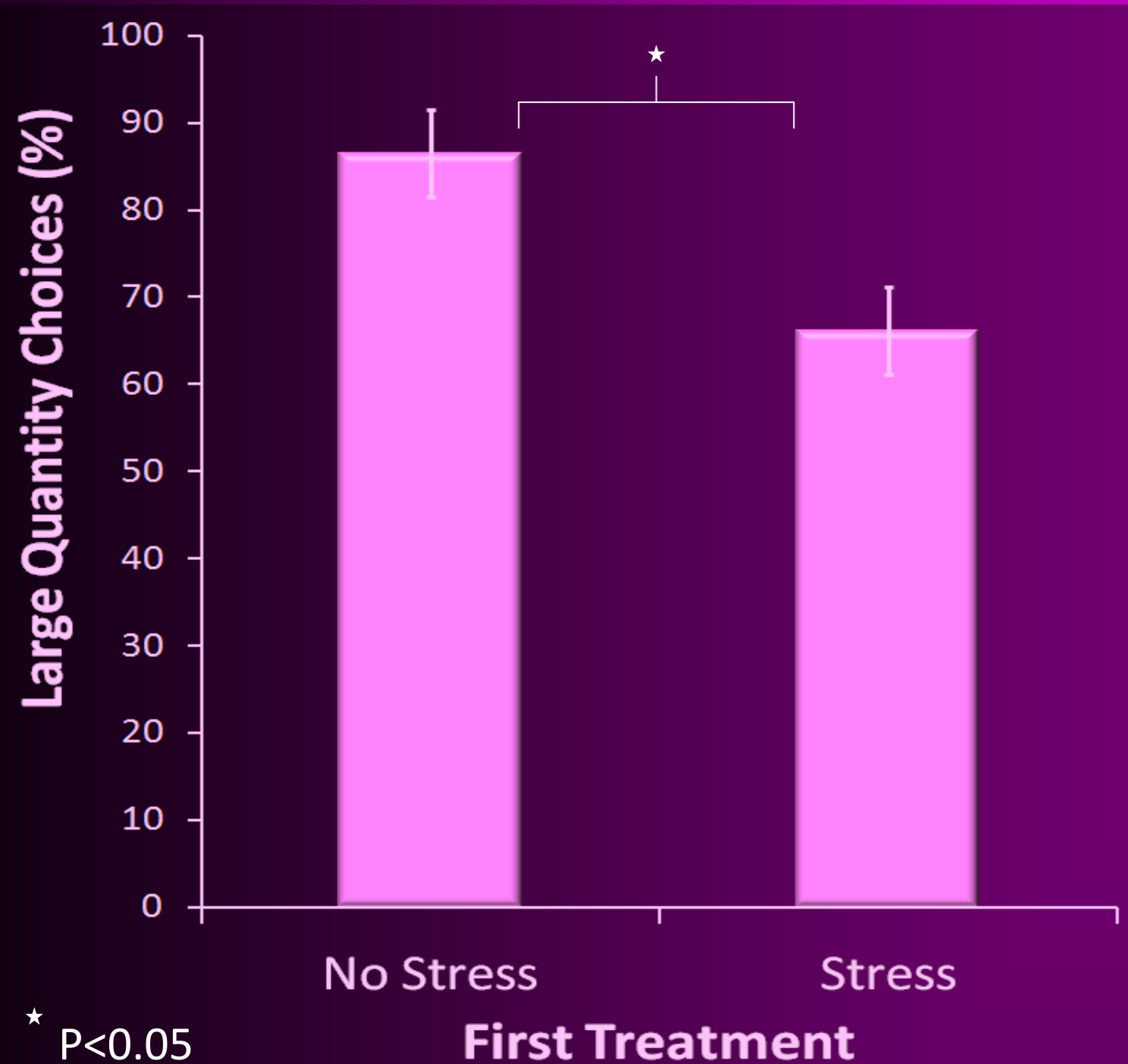
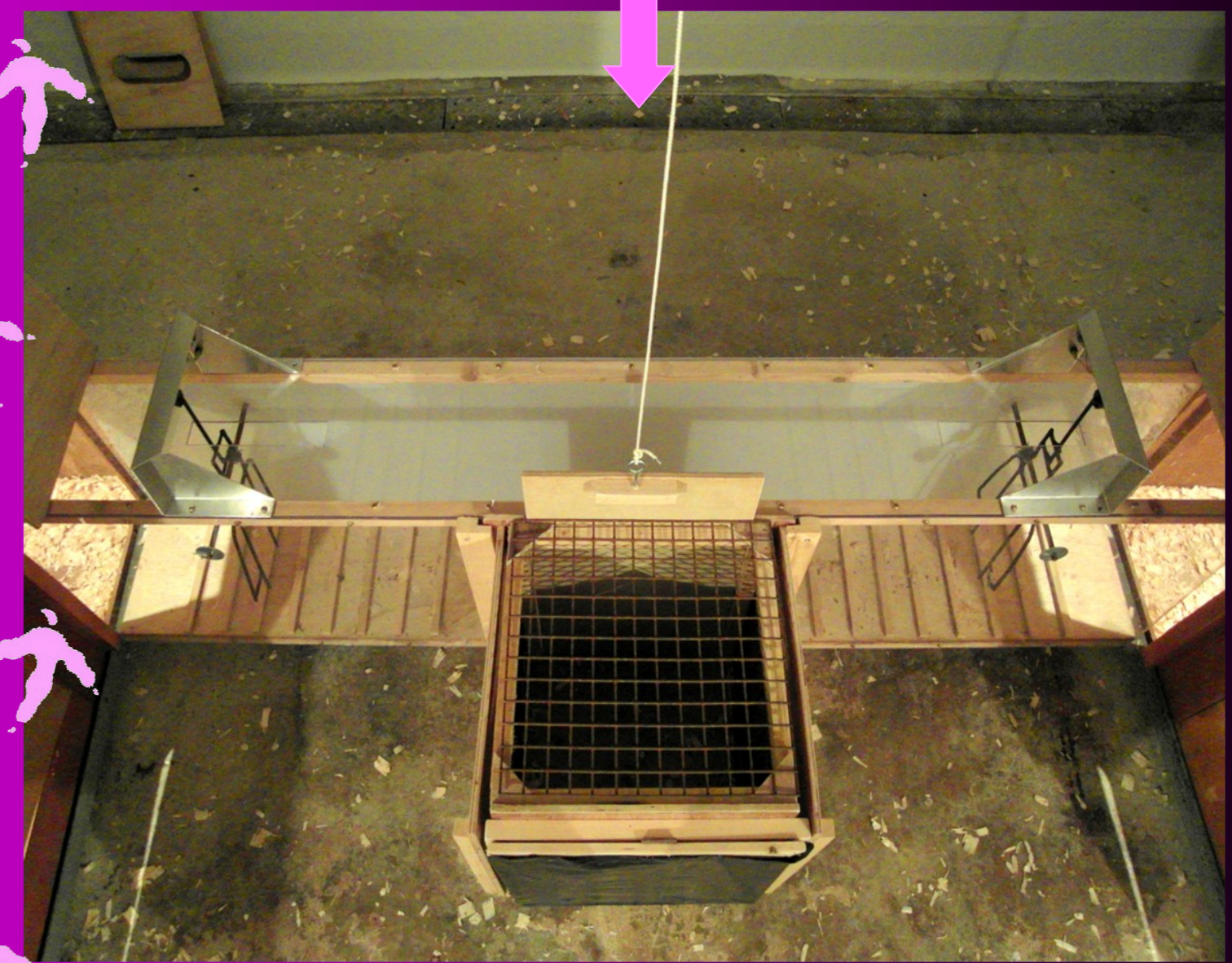
Unbalanced choice: small vs large food reward

Balanced choice: small vs large food reward + a cost to reach the large reward

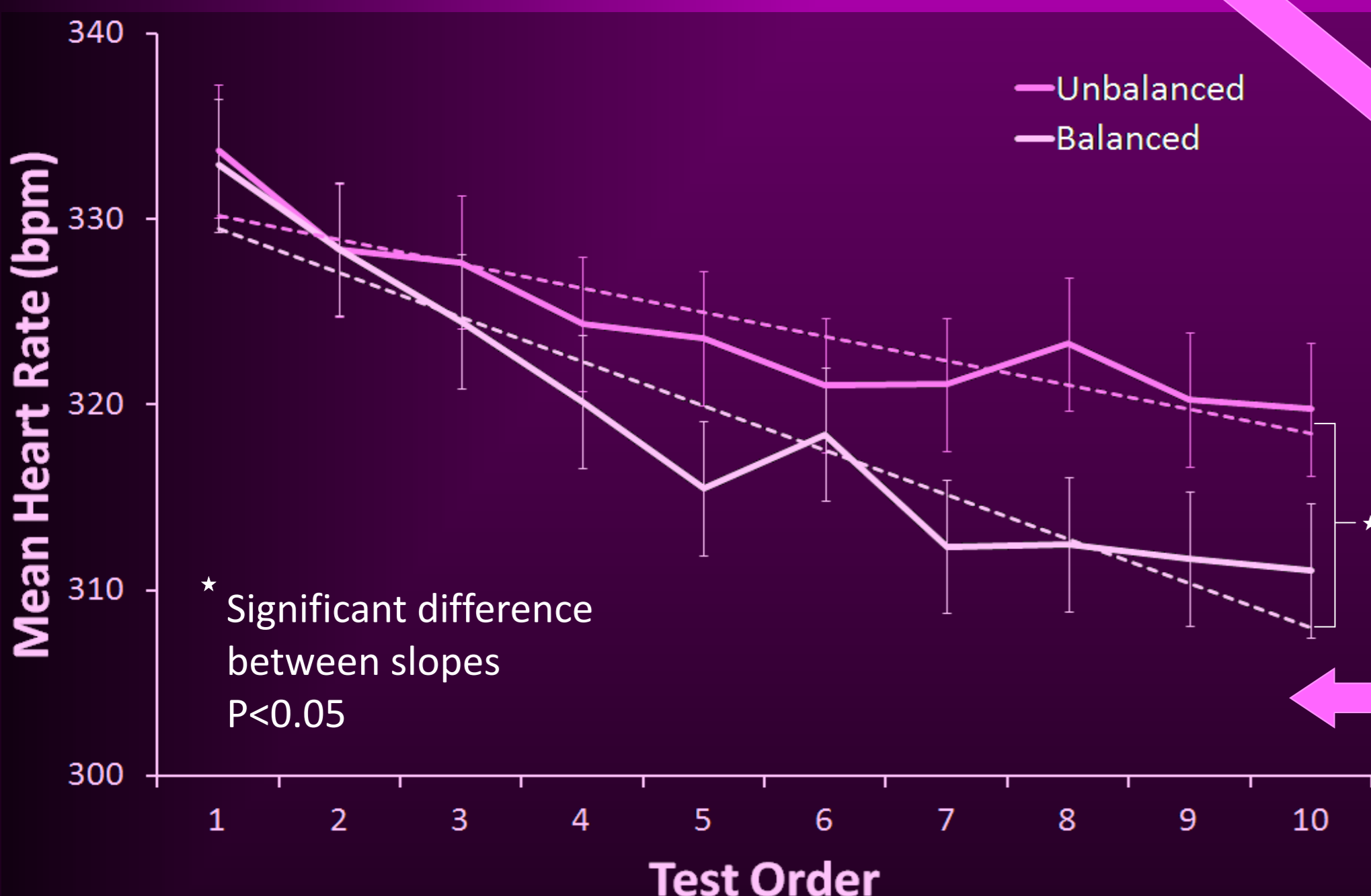
Conclusions

Stress during decision-making may affect subsequent choices

Decreasing heart rate during balanced decision-making may indicate anticipation of difficulty



Hen pushing through a weighted door (cost) to reach the reward



Results

Hens stressed before their first session showed less preference for the large food reward.

Heart rate decreased more rapidly when hens made choices between balanced options than between unbalanced options.

Acknowledgements

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