

1. Introduction

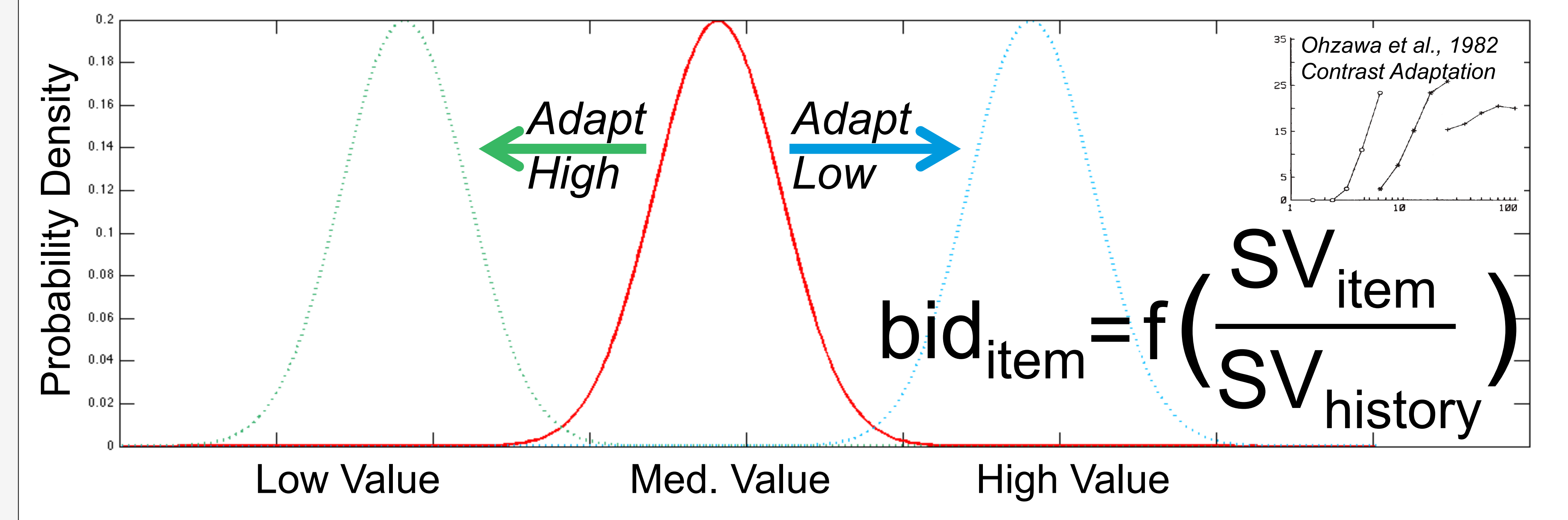
- **Economics:** primes, contexts, and anchors have are widely known to bias preferences and pricing behavior.
- **Psychophysics:** a wide range of history-dependent adaptation effects are known to bias perceptual judgments.
- **Subjective values and perceptual properties** (e.g., contrast) are encoded as relative quantities by neurons [1,2,3]; normalization models of visual responses can explain value encoding as well as choice patterns [4].

Are there psychophysical effects in economics?

Do the deviations of repeated auction bids reveal a history-dependent relative value code?

2. Predictions

- A temporally-dynamic relative value code predicts that the subjective values of a set of goods will change – depending on the recent history of valuation.



3. Method

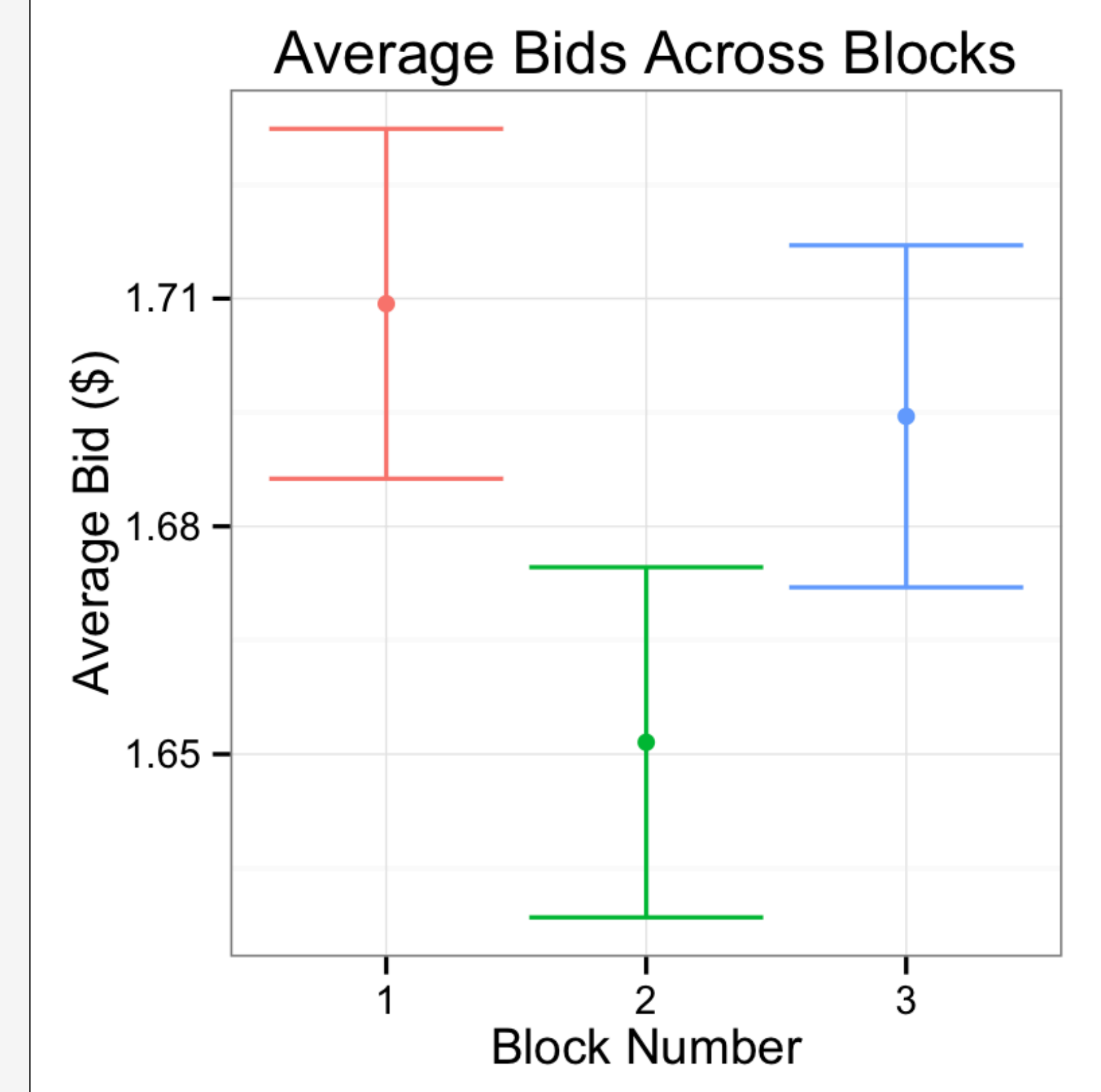


N = 44

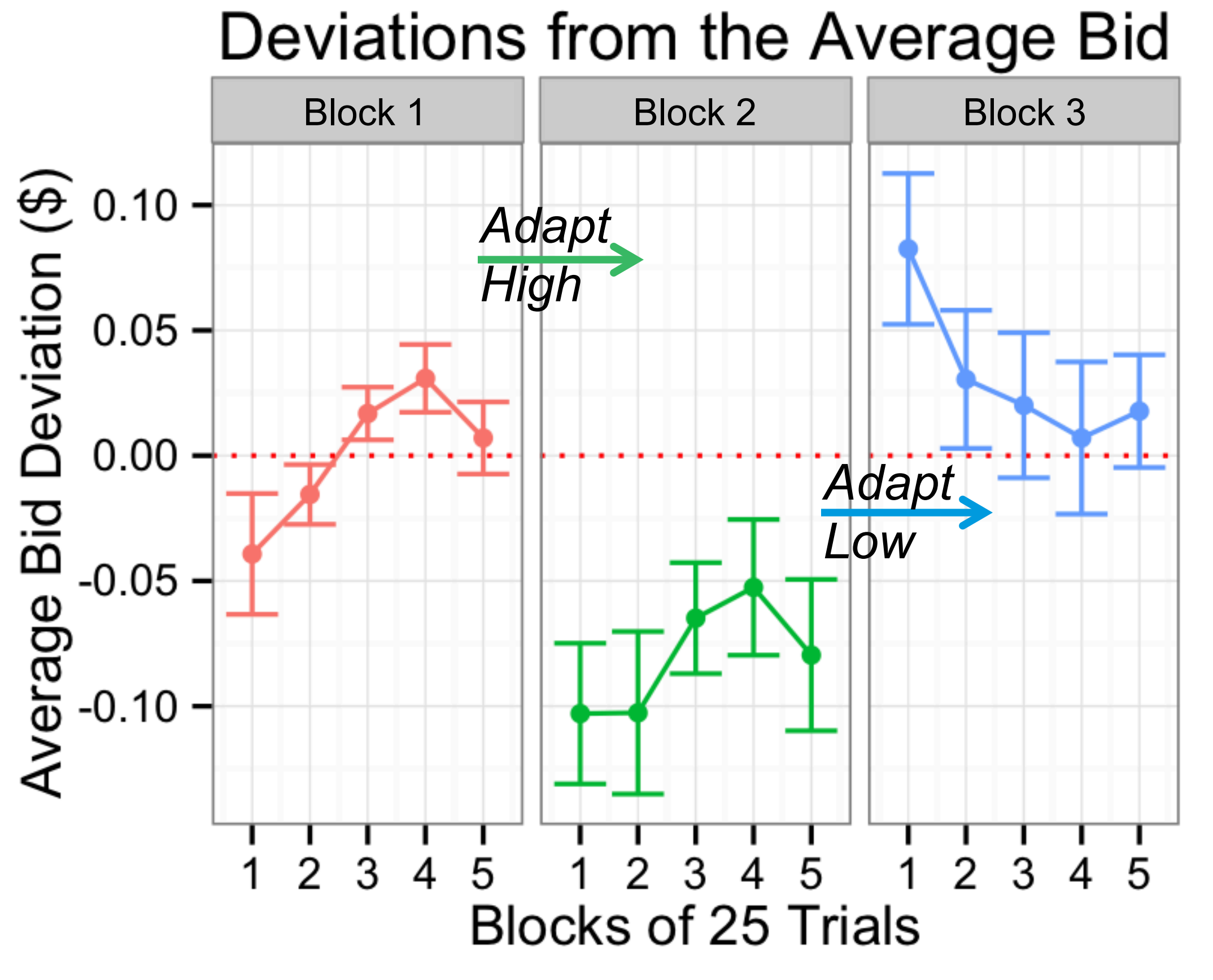
nb: Bidding format was a BDM auction with a single trial selected after participation for actualization [5].



4a. Results – Bidding trials

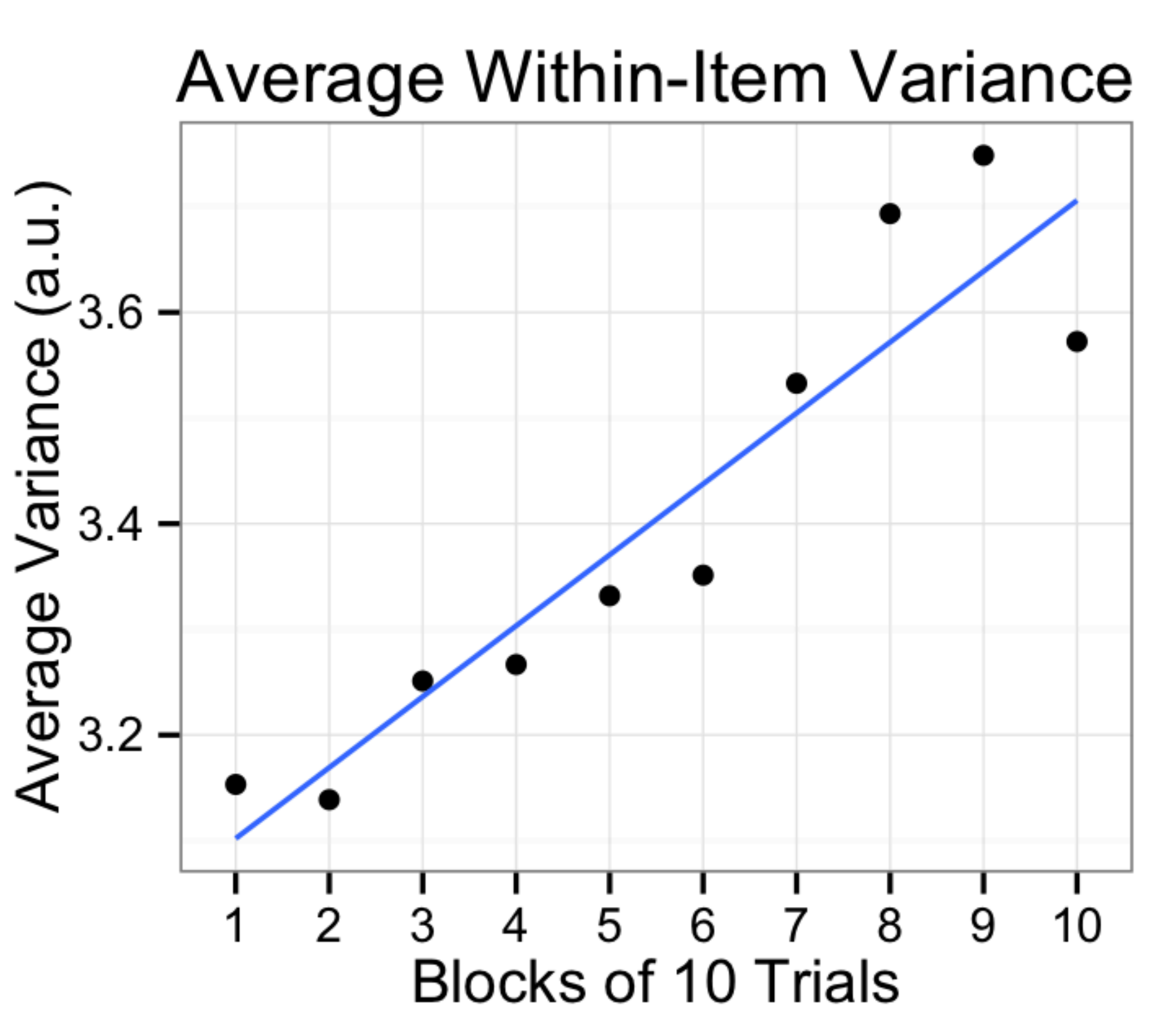


- Average bids decrease and increase following adaptation blocks.

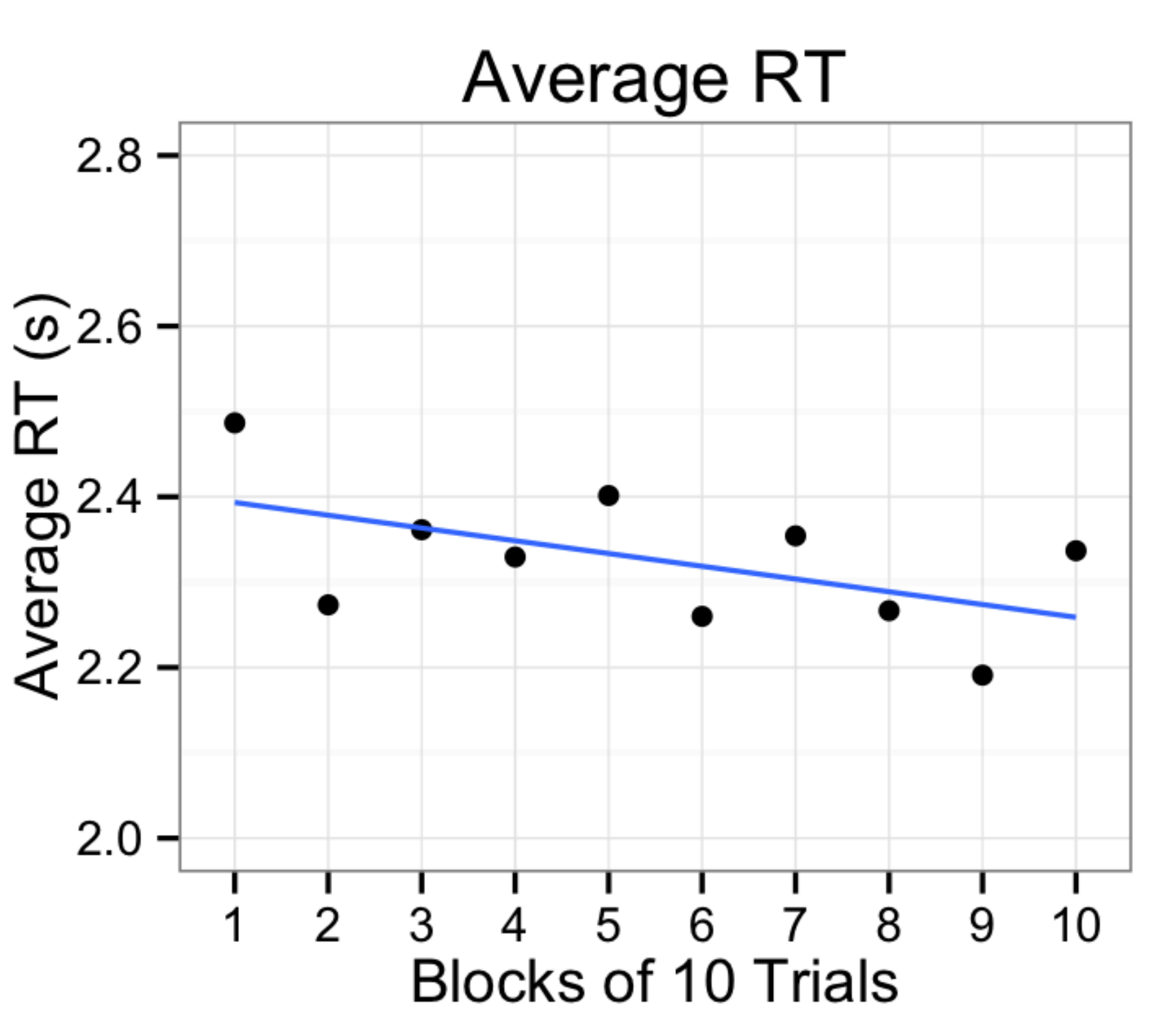


- Deviations from the mean is modulated by both recent adaptation and bidding history.

4b. Results – Rating trials



- Within-item variance across good ratings increases with trials.



- Average RT does not vary with trials.

5. Conclusions

- There are psychophysical adaptation effects in the dynamics of repeated bidding behavior.
- The directionality of this effect is predicted by a history-dependent relative value code.
- Variance structure of ratings suggest that individuals are undergoing a value-based adaptation process.

6. Future Directions

- Fit normalization models [5; poster 555.22/TT41] to the bid data in order to arbitrate between different forms of relative value code.

References

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- Rorie, A. E., Gao, J., McClelland, J. L., & Newsome, W. T. (2010). Integration of sensory and reward information during perceptual decision-making in lateral intraparietal cortex (LIP) of the macaque monkey. *PLoS One*, 5(2).
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