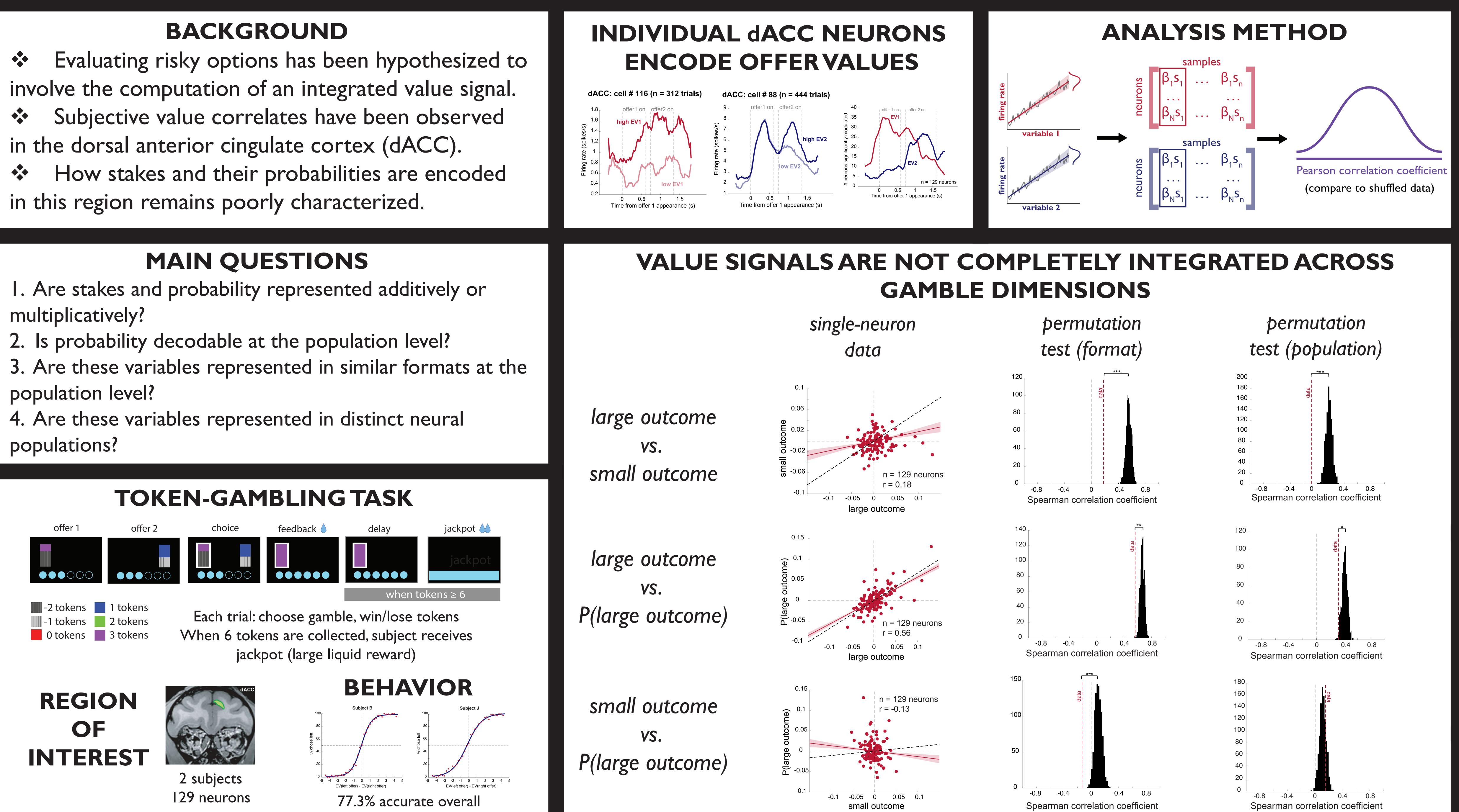
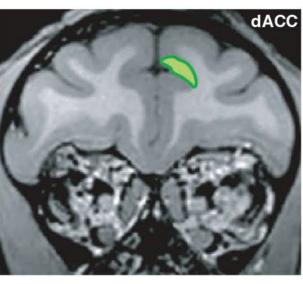
Intermediate integration of value signals in dorsal anterior cingulate neurons Habiba Azab & Benjamin Y. Hayden

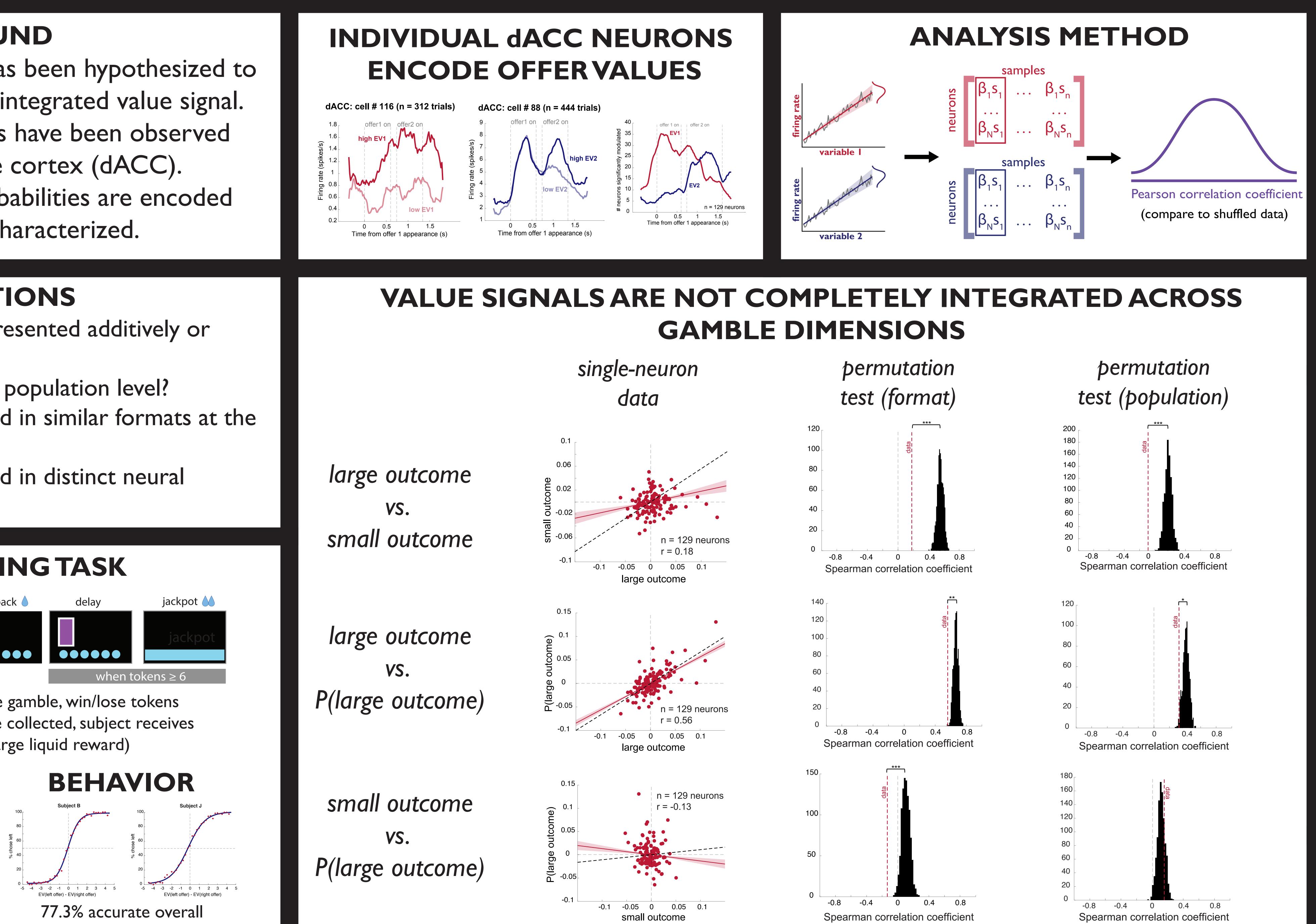


• in the dorsal anterior cingulate cortex (dACC). in this region remains poorly characterized.

- multiplicatively?
- 2. Is probability decodable at the population level?
- population level?
- 4. Are these variables represented in distinct neural populations?







Department of Neuroscience and Center for Magnetic Resonance Research, University of Minnesota Data collected at the Department of Brain and Cognitive Sciences at the University of Rochester

<u>azab0001@umn.edu</u>

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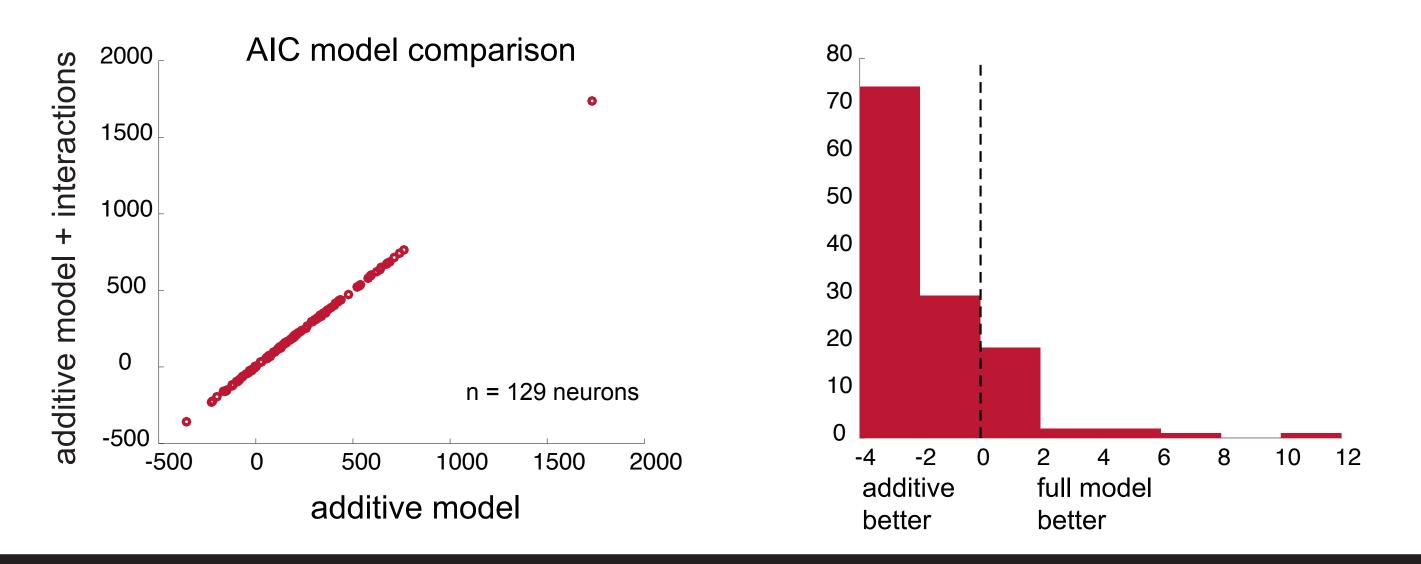
NO EVIDENCE FOR MULTIPLICATIVE VALUE SIGNAL

ADDITIVE MODEL

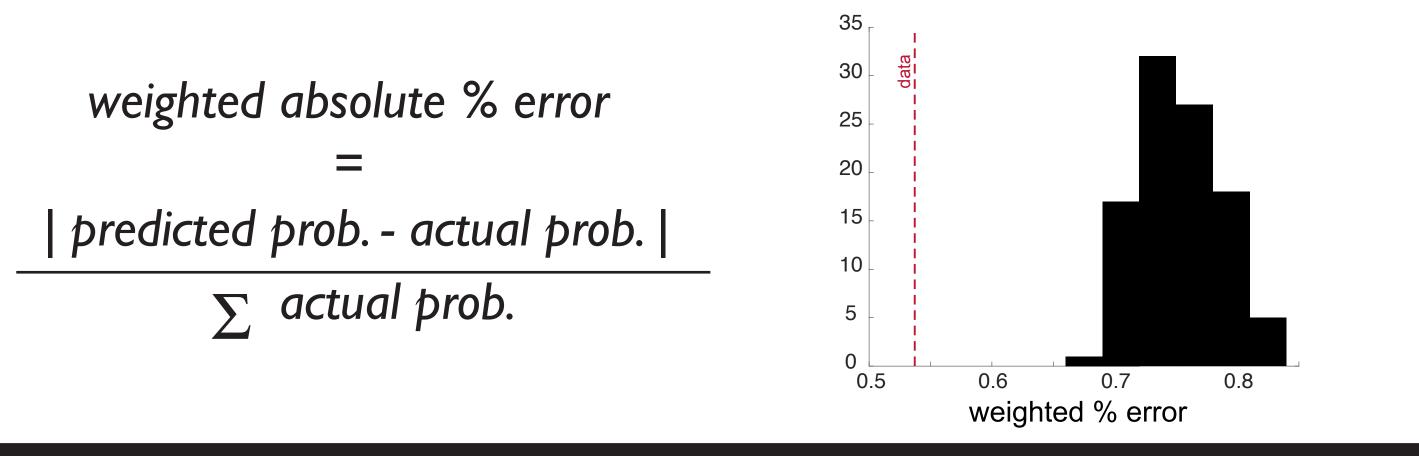
norm. fr ~ large outcome + small outcome + P(large outcome)

FULL MODEL

norm. fr ~ additive model + EV(large outcome) + EV(small outcome)



PROBABILITY IS DECODABLE AT POPULATION LEVEL



CONCLUSIONS

- I. No strong evidence for a multiplicative value signal.
- 2. Probability is decodable at the level of the population.
- 3. Representations of stakes and probability are separable at the population level.
- 4. Value representations in dACC appear to be intermediate and not completely integrated.