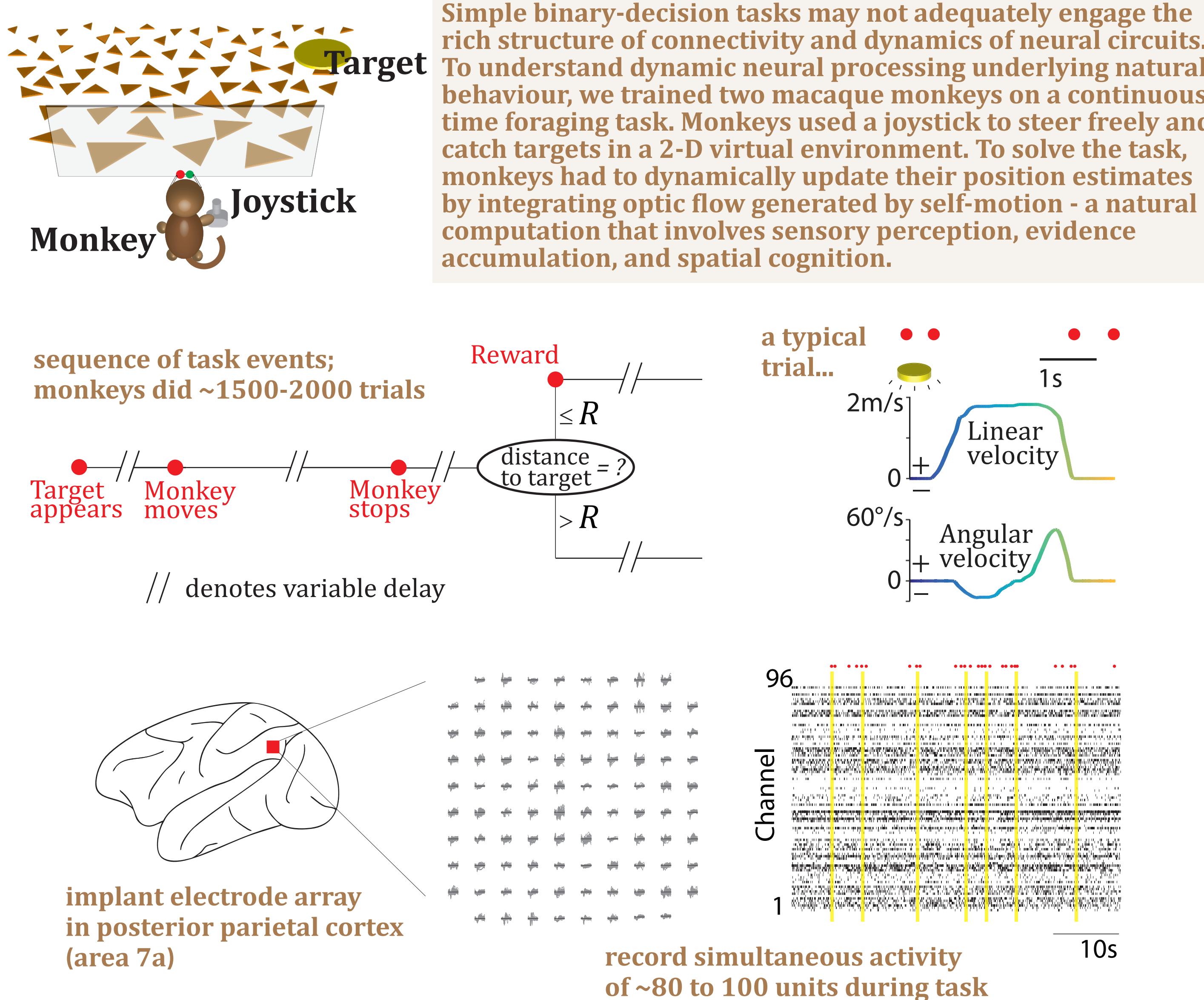


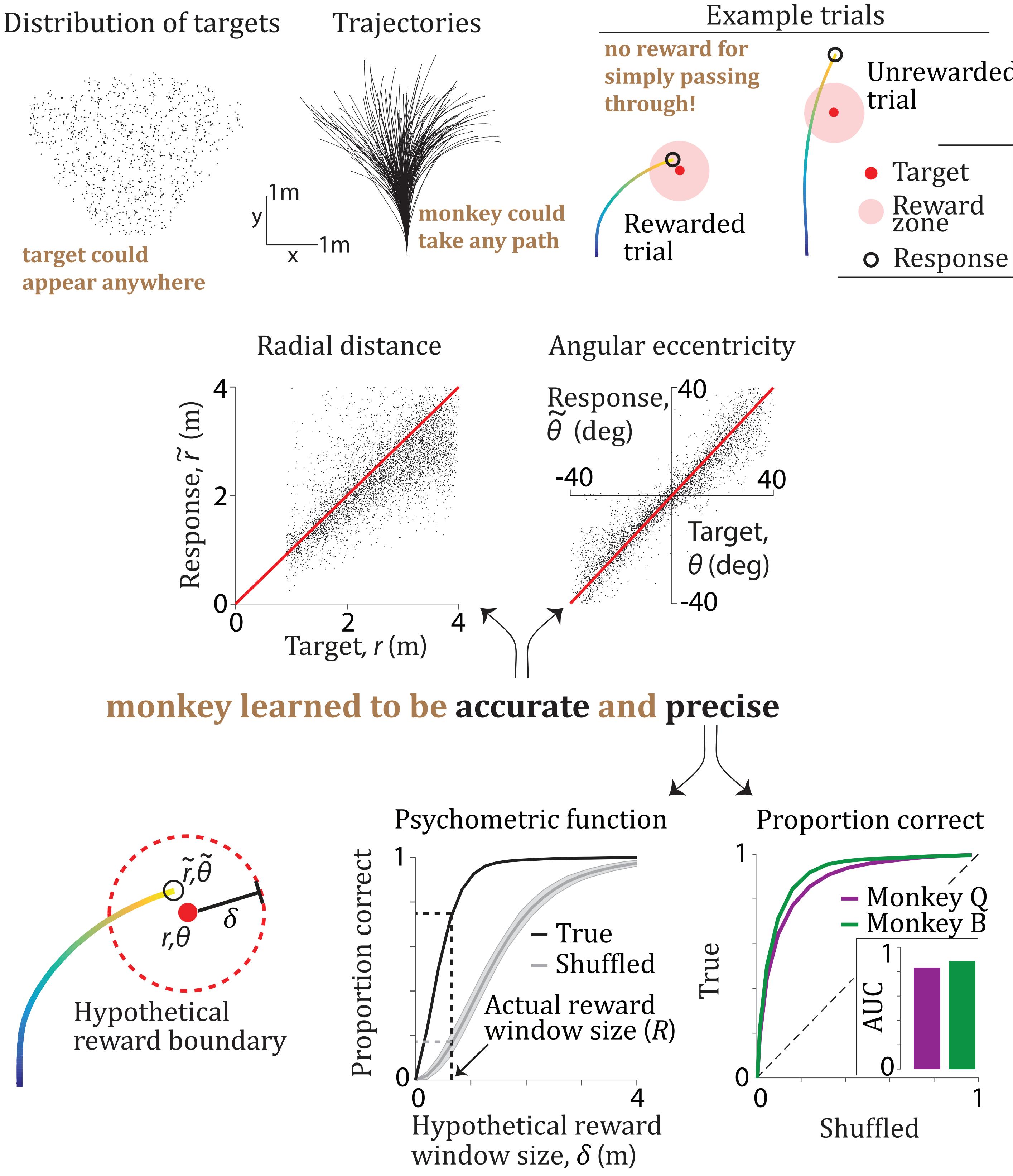
Task representation in the macaque posterior parietal cortex during virtual navigation

Kaushik Lakshminarasimhan, Eric Avila, Rozbeh Kiani, Paul Schrater, Greg DeAngelis, Xaq Pitkow, Dora Angelaki

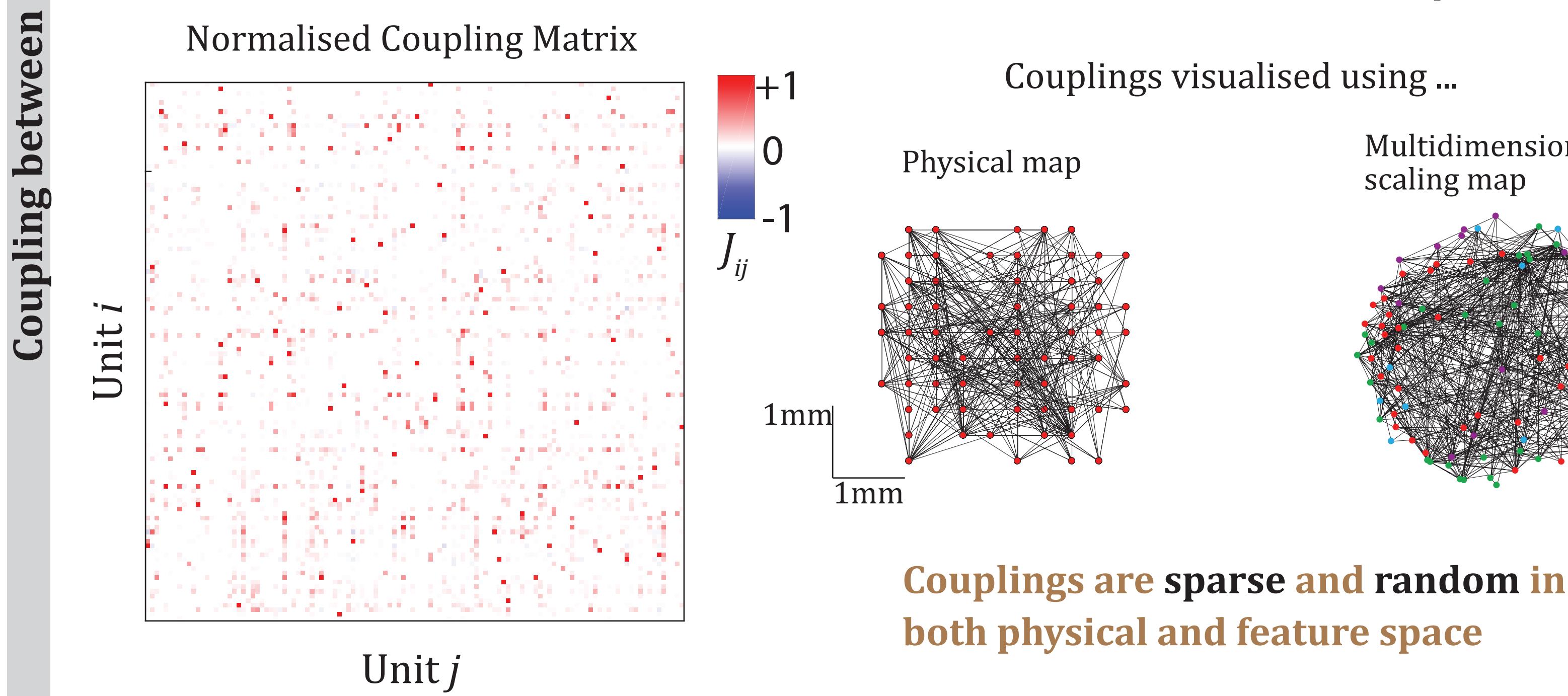
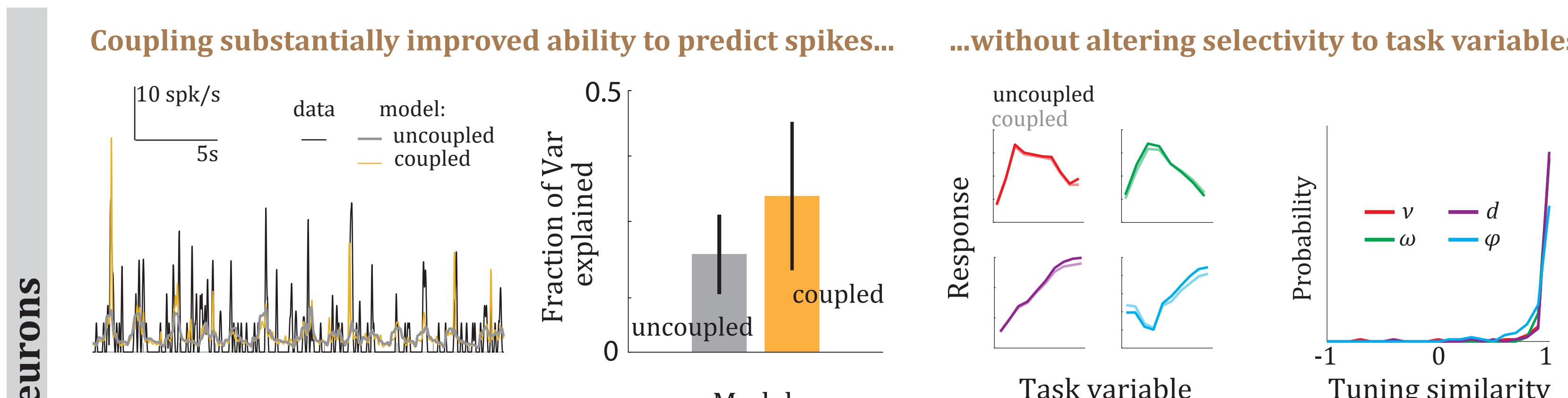
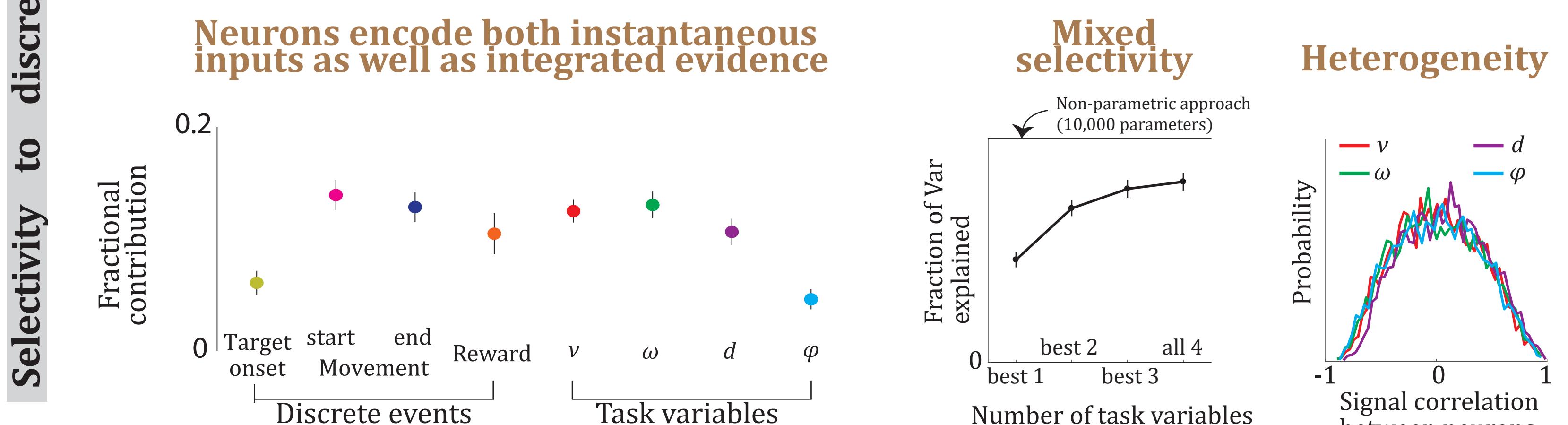
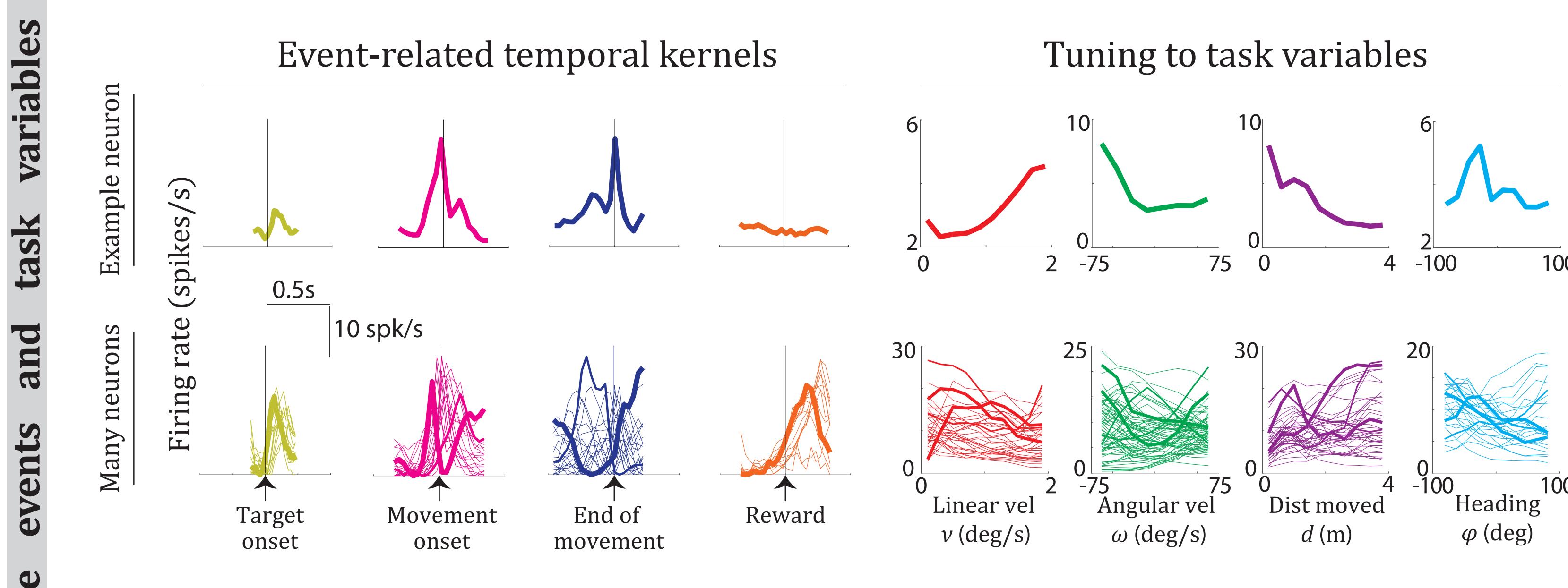
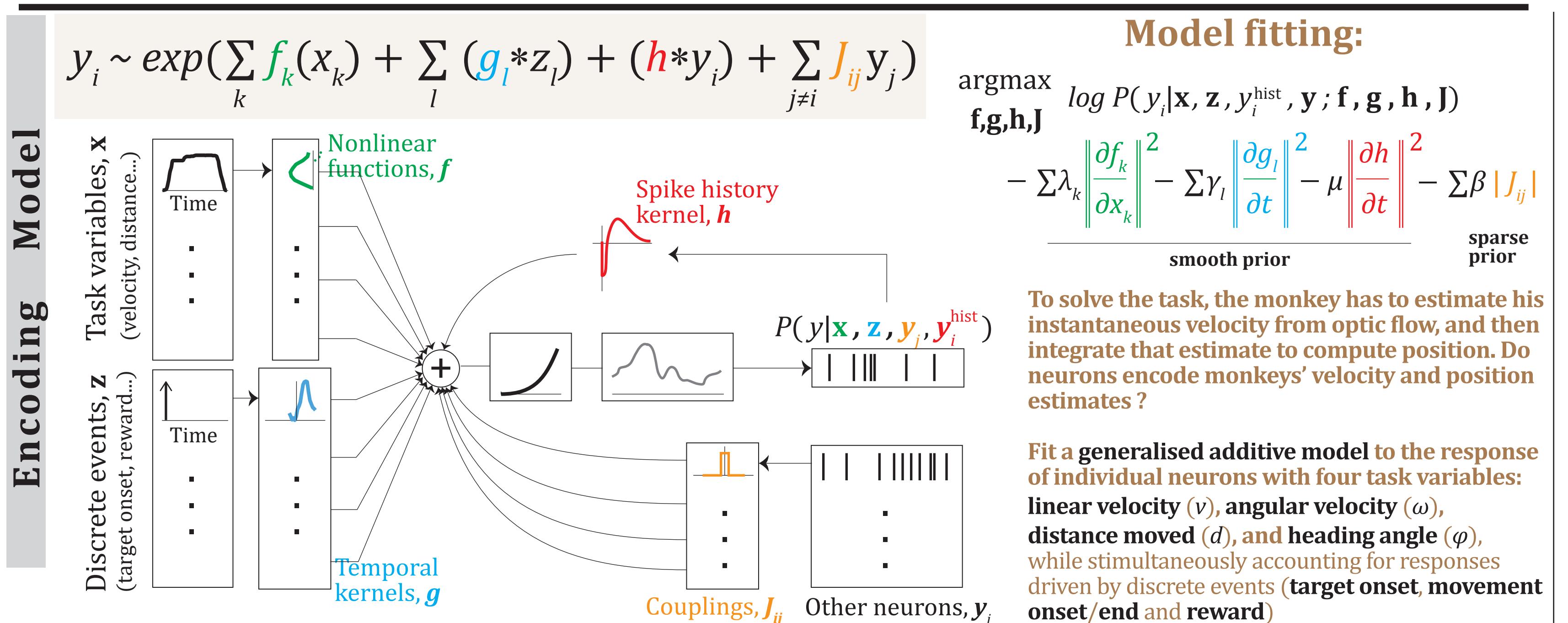
Task



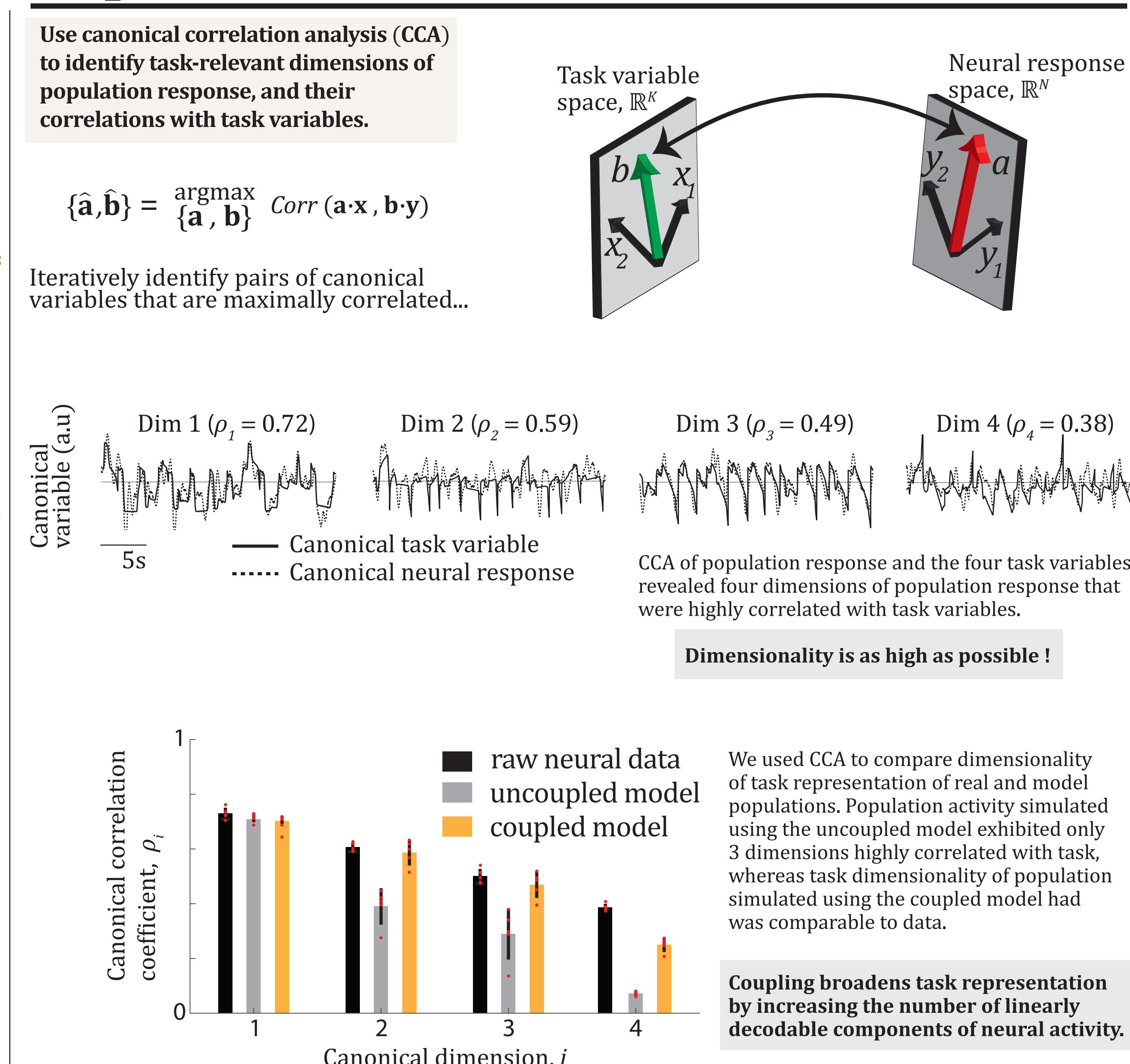
Behaviour



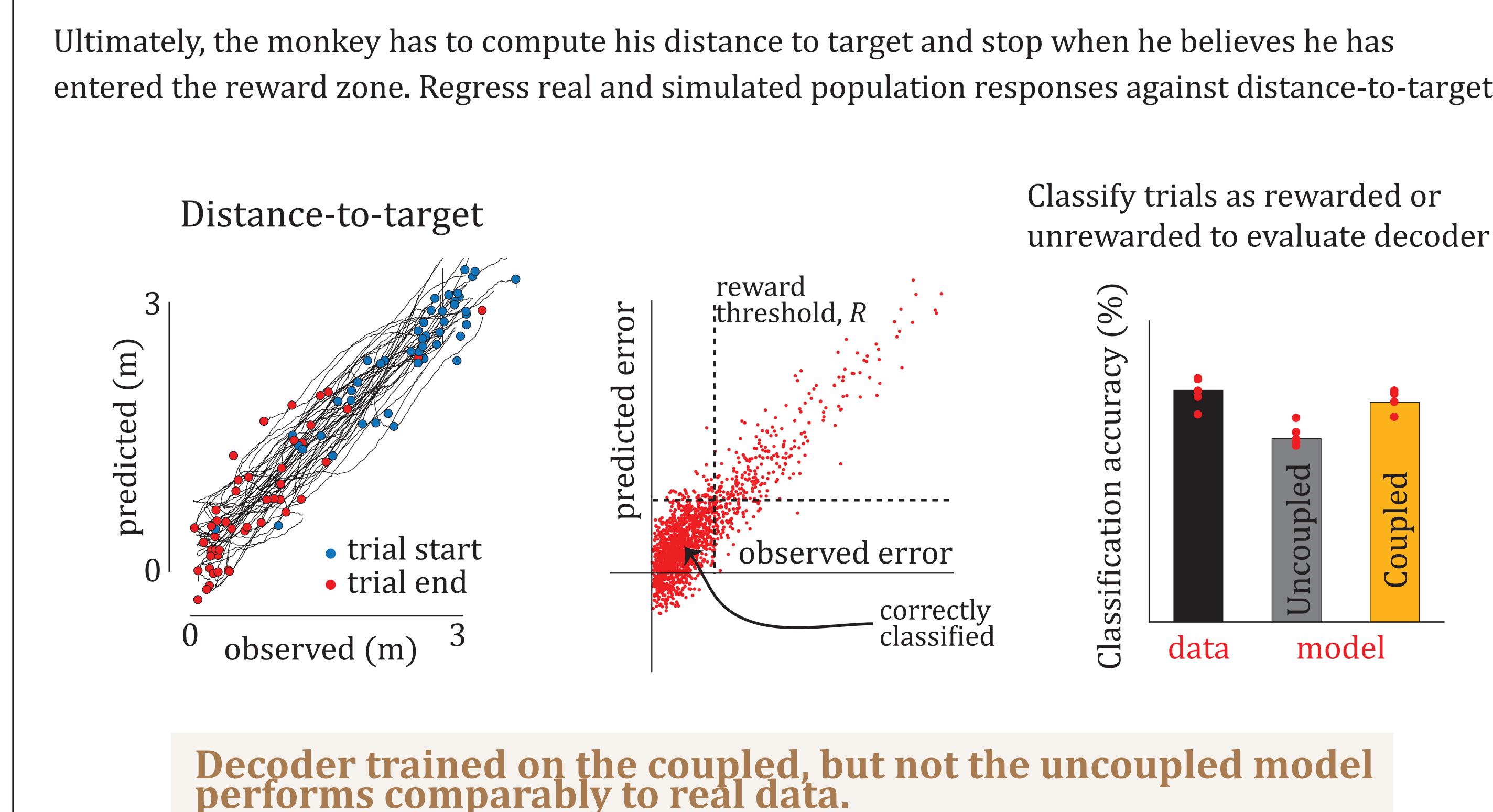
Single Neurons



Population



Linear decodability



Summary

- Trained macaque monkeys to perform complex virtual navigation task.
- Monkeys learned to integrate dynamically varying optic flow.
- Recorded activity of large number of neurons in posterior parietal cortex.
- Neurons exhibit mixed, heterogeneous selectivity for velocity and position.
- Neural response is significantly influenced by coupling between neurons.
- Coupling serves to broaden task representation by increasing the amount of linearly decodable information.