MULTI-REGION COORDINATION IN TASTE PROCESSING

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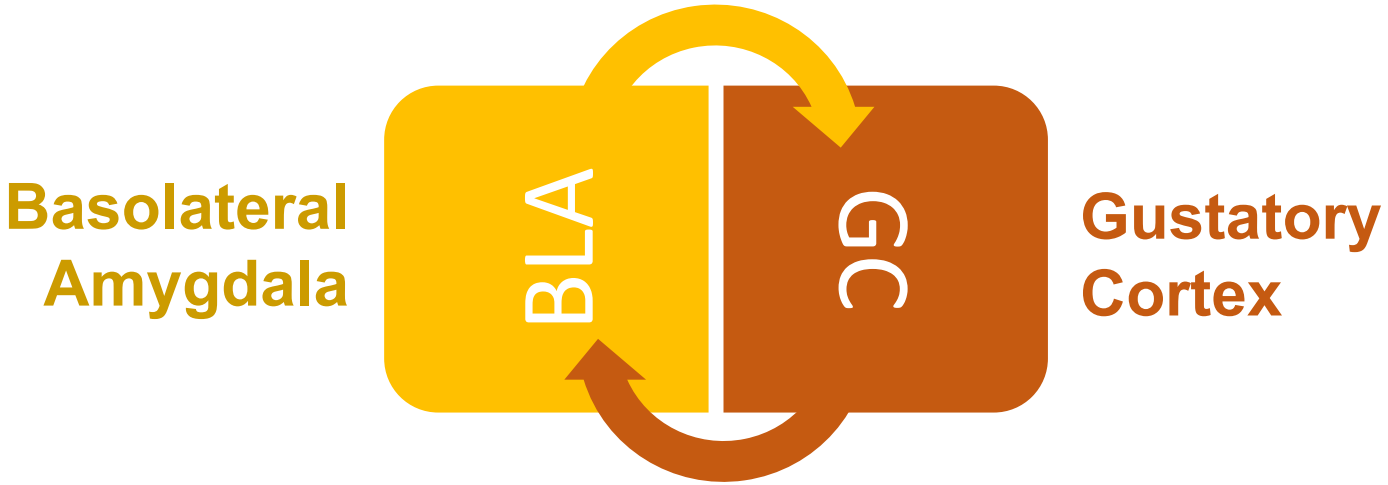
RECURRENT CONNECTIVITY IN THE TASTE CIRCUIT

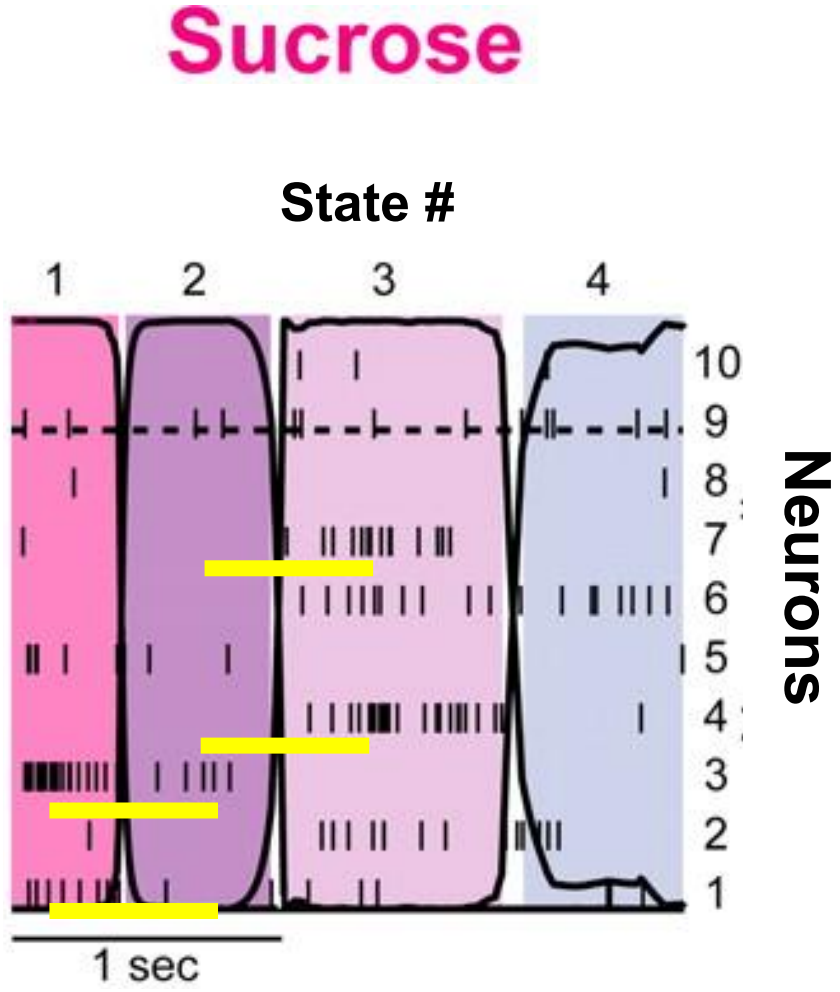
Stone et al. 2011
Haley et al. 2016

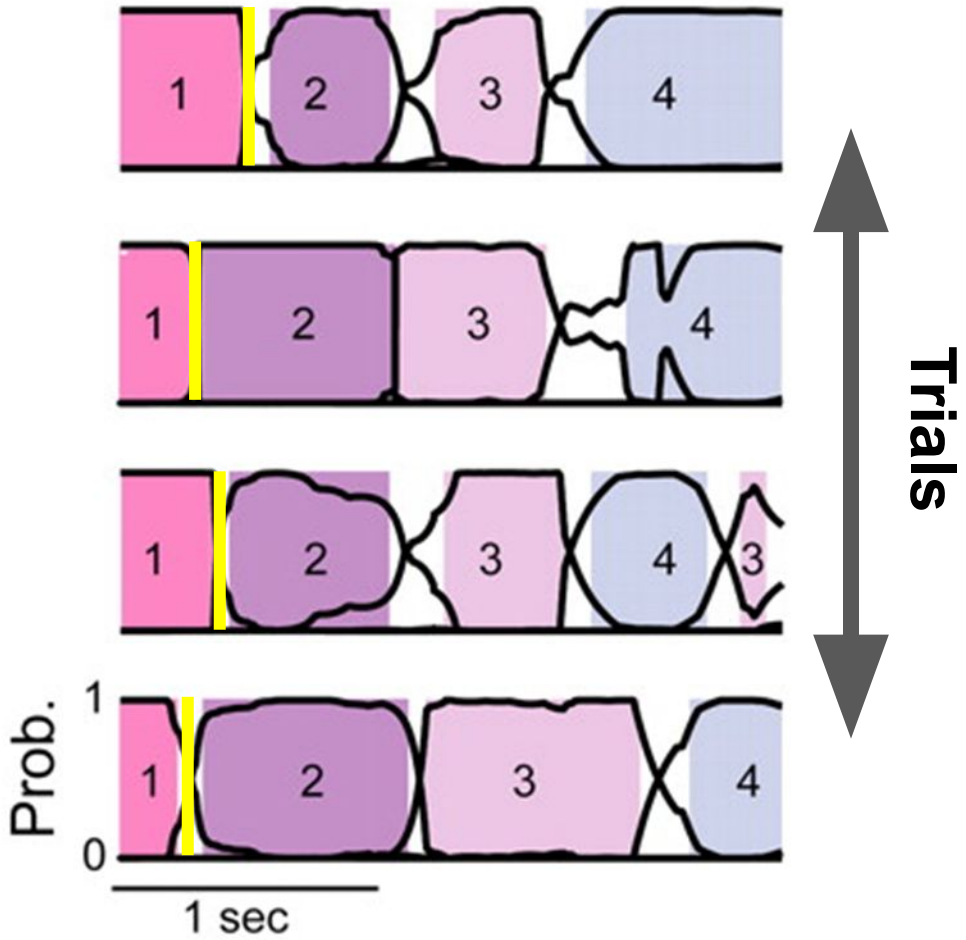


Bielavska and Roldan 1996
McDonald 1998

Figure adapted from Carleton et al. 2010 and Merlo et al. 2015

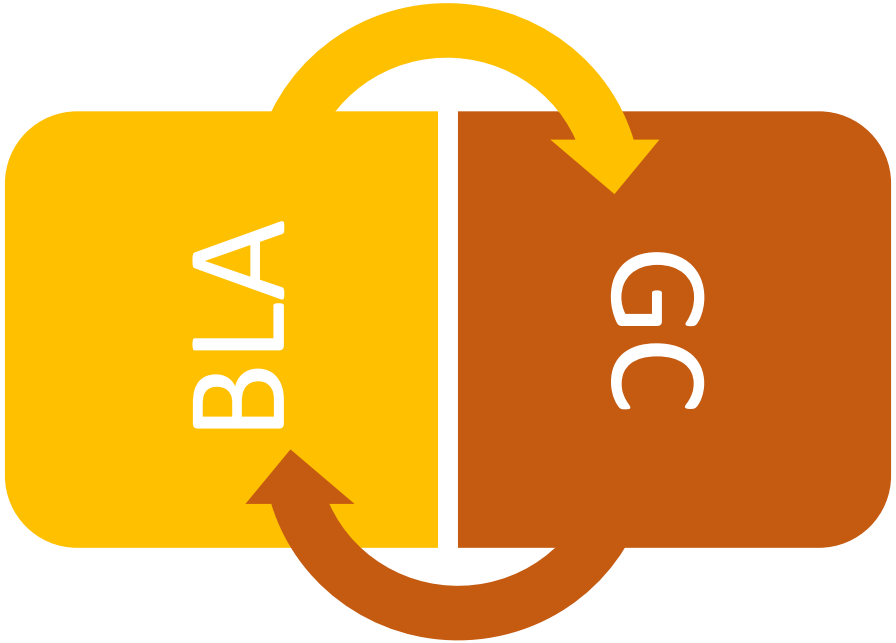
POPULATION ACTIVITY STATE TRANSITIONS IN **GC**



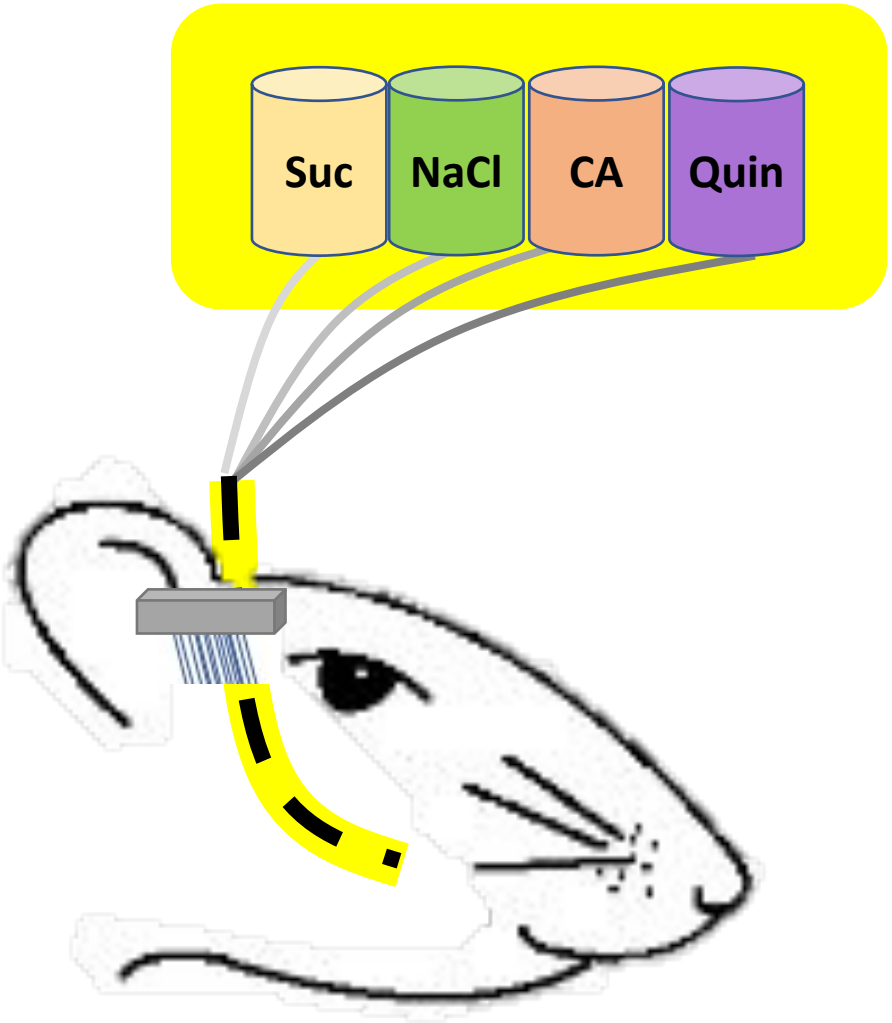


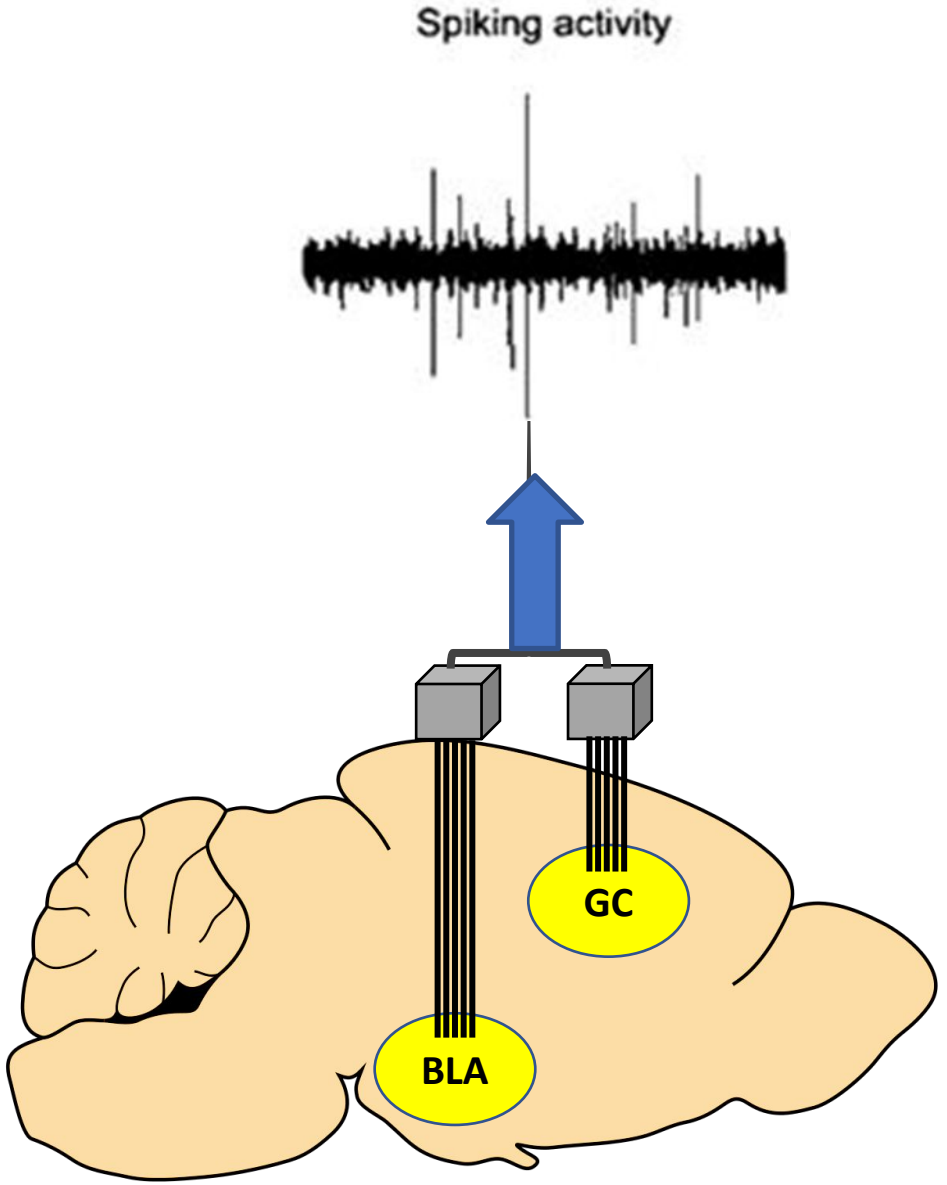
QUESTIONS

1. Does BLA population activity evolve in discrete states?
2. Does BLA and GC activity show coordinated state-transitions?



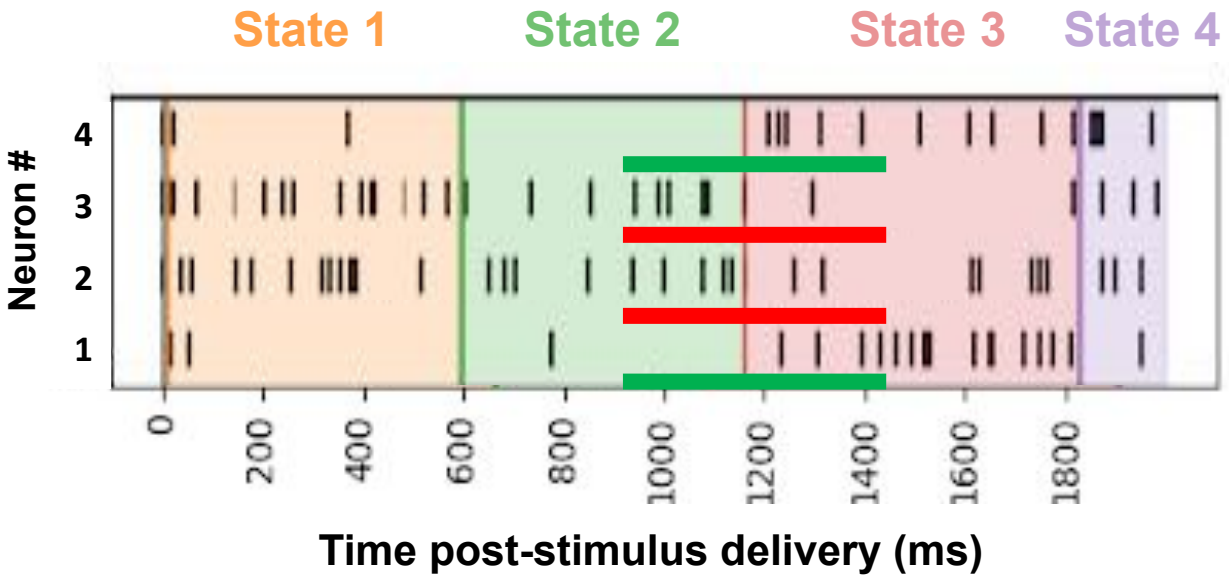
EXPERIMENTAL SETUP

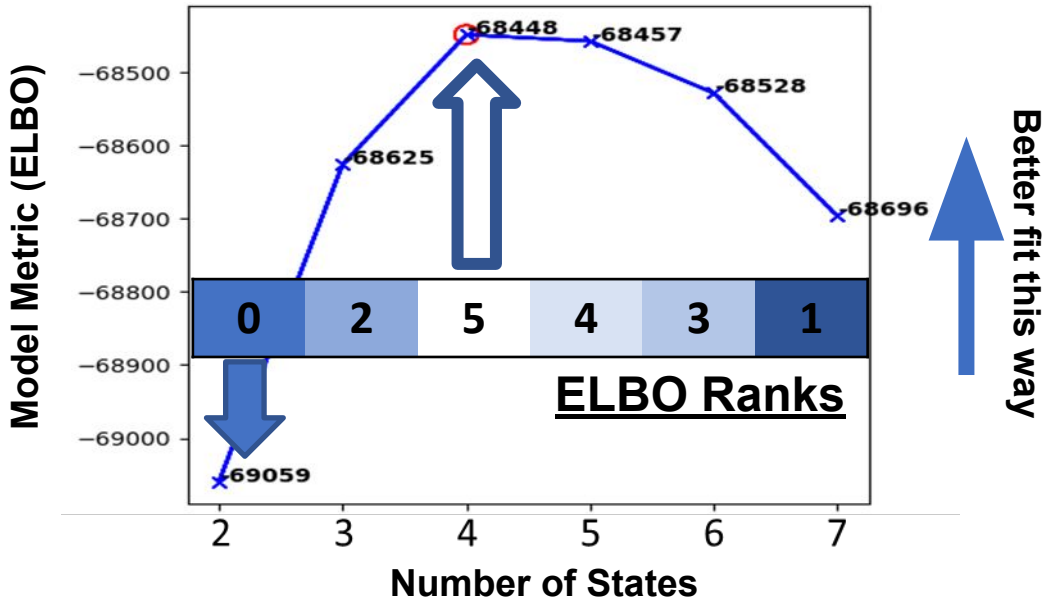




Adapted from Flores et al. 2018

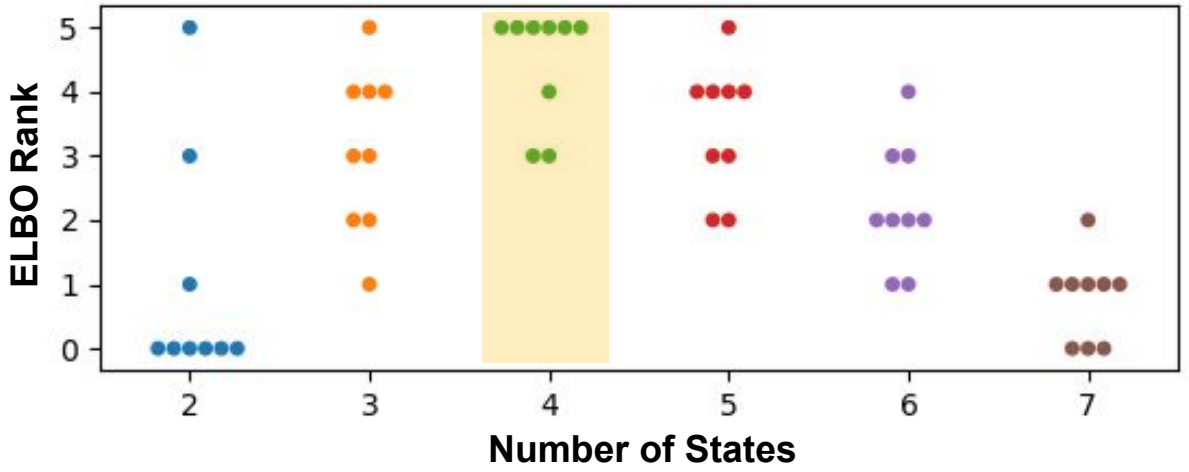
POPULATION ACTIVITY STATE TRANSITION **BLA**





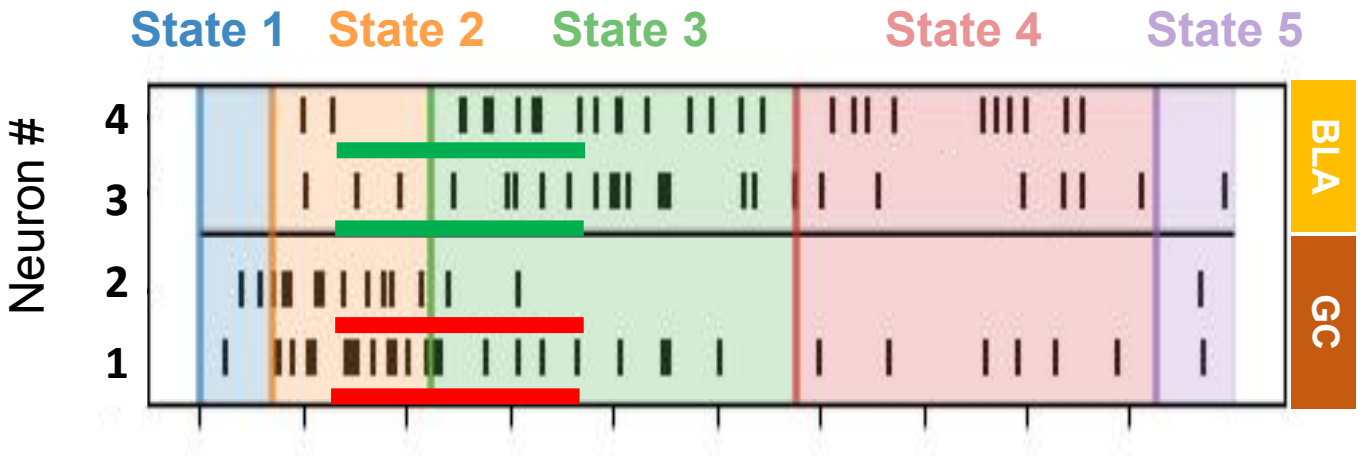
Questions:

1) How do we know this is real?
2) How many states do we fit?



n = 2 animals, 4 recordings/animal

BLA AND GC NEURONS APPEAR TO TRANSITION TOGETHER



(ms)

SUMMARY

- BLA, like GC, shows sharp state-like transitions in its population activity
- BLA and GC appear to have coordinated state transitions

FUTURE DIRECTIONS

- Quantifying strength of transition alignment between BLA and GC population activity.
- Are particular transitions more strongly aligned than others?

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