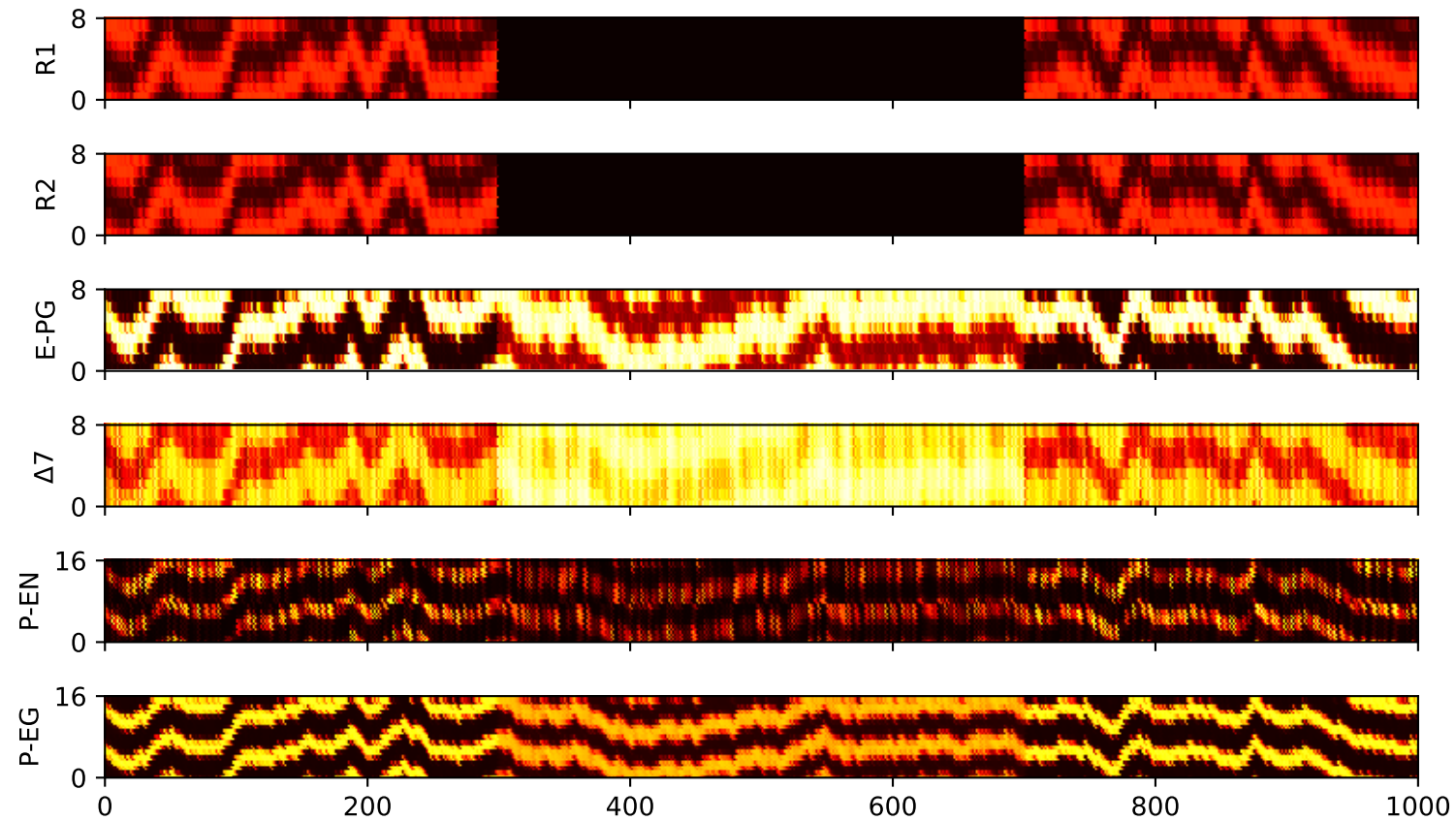
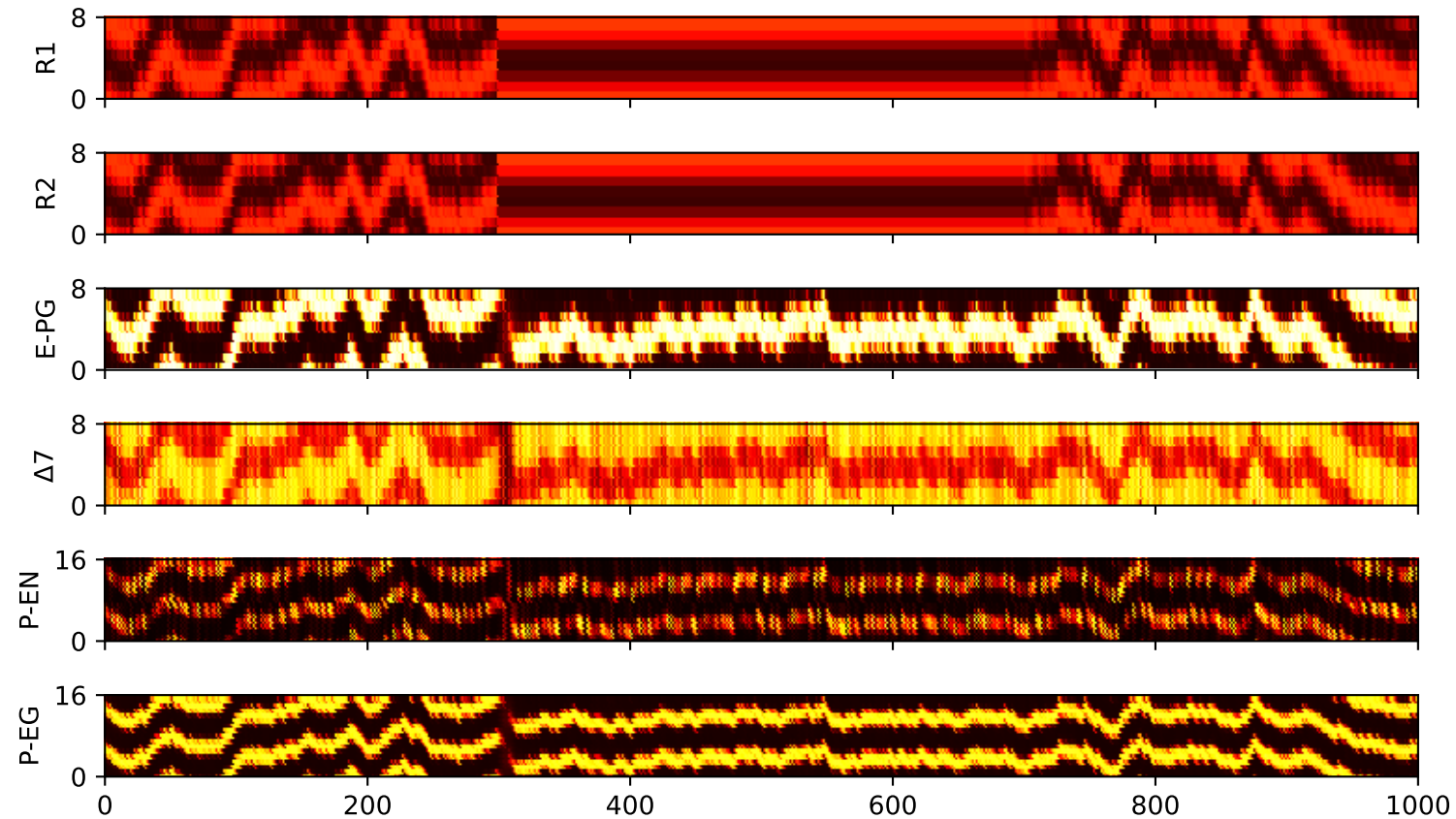


# E-PG bump continues without external cues



# E-PG bump primarily driven by cue input

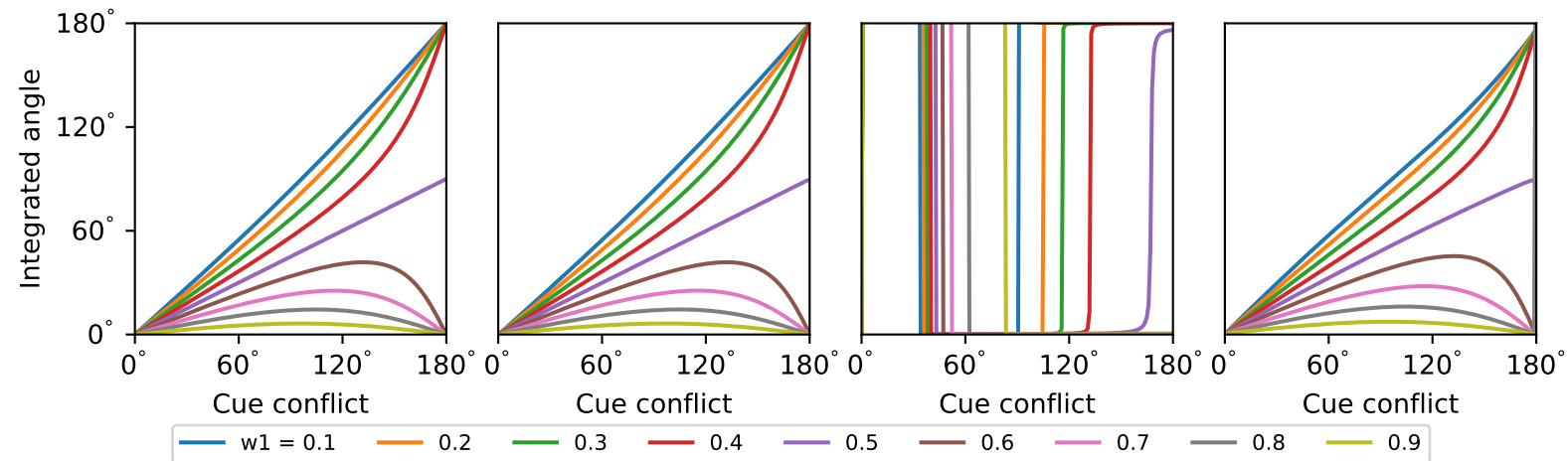
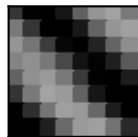
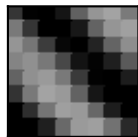
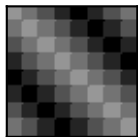
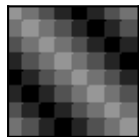


Vector sum

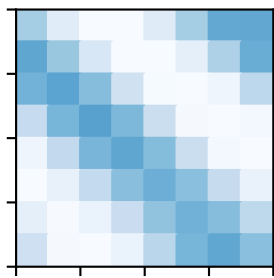
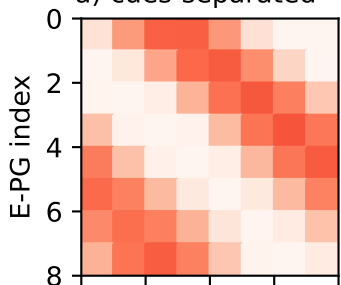
Set mapping

Learning w/o dance

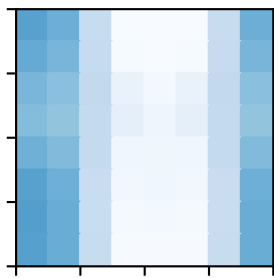
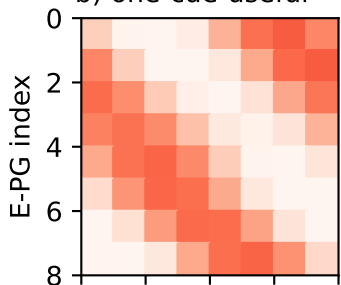
Learning w/ dance



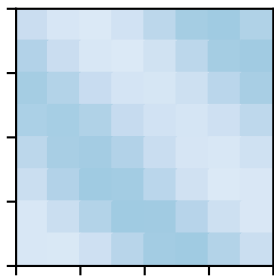
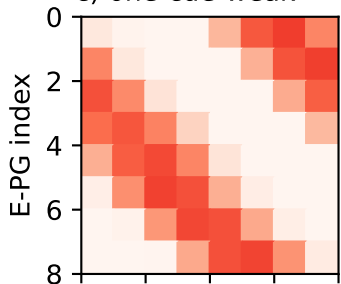
a) cues-separated



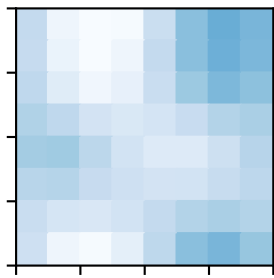
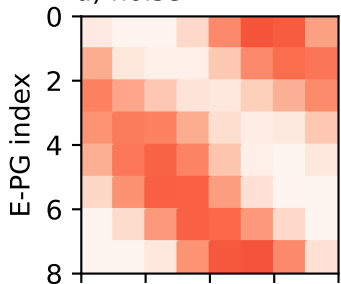
b) one-cue-useful



c) one-cue-weak



d) noise



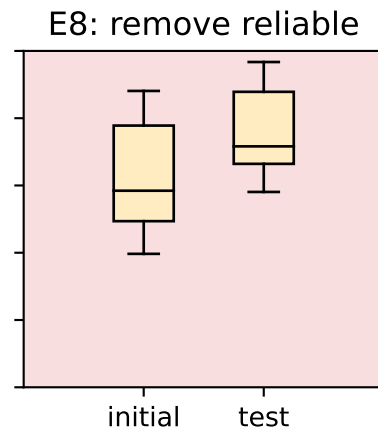
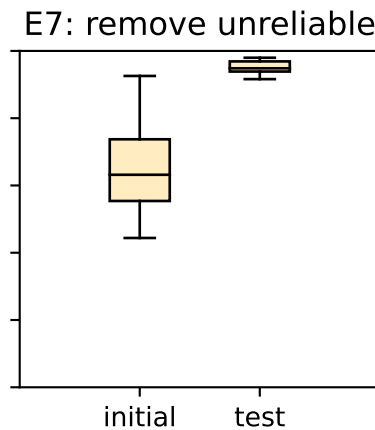
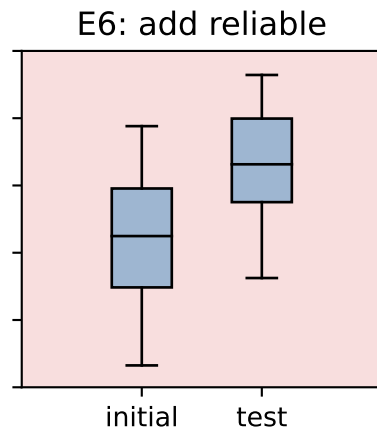
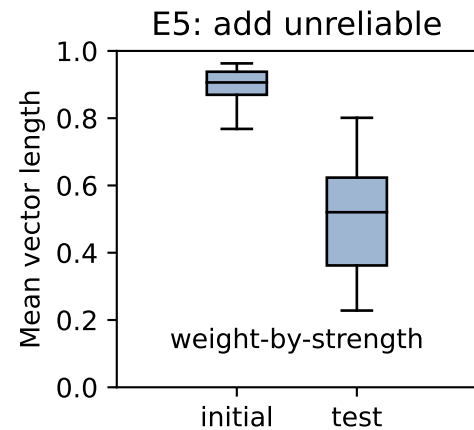
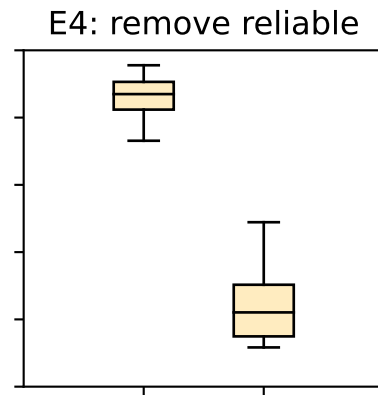
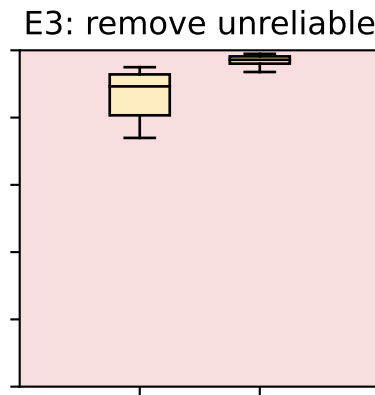
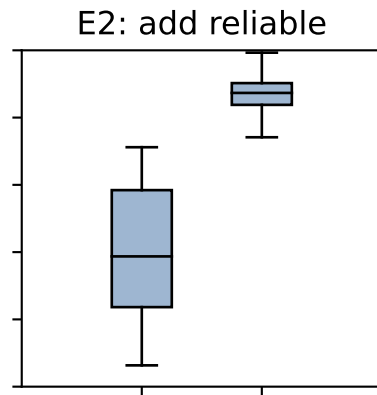
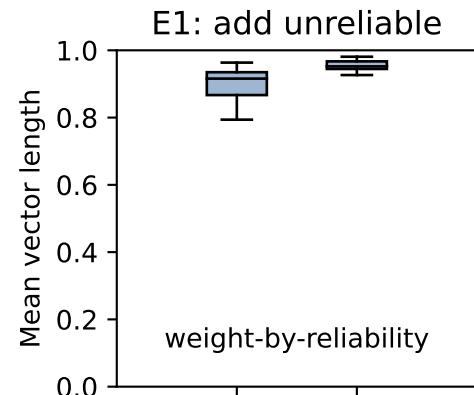
R index (Cue 1)



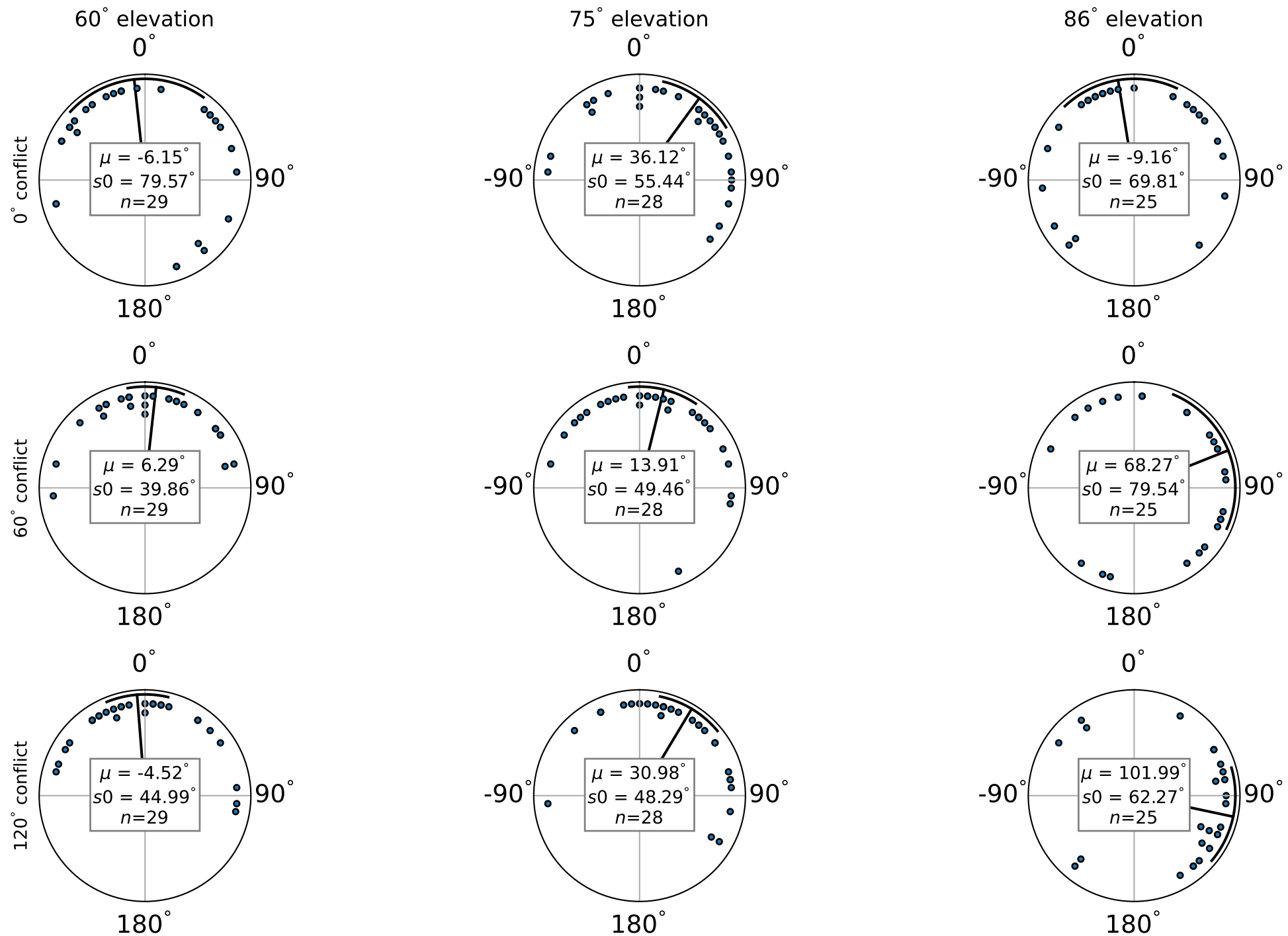
R index (Cue 2)



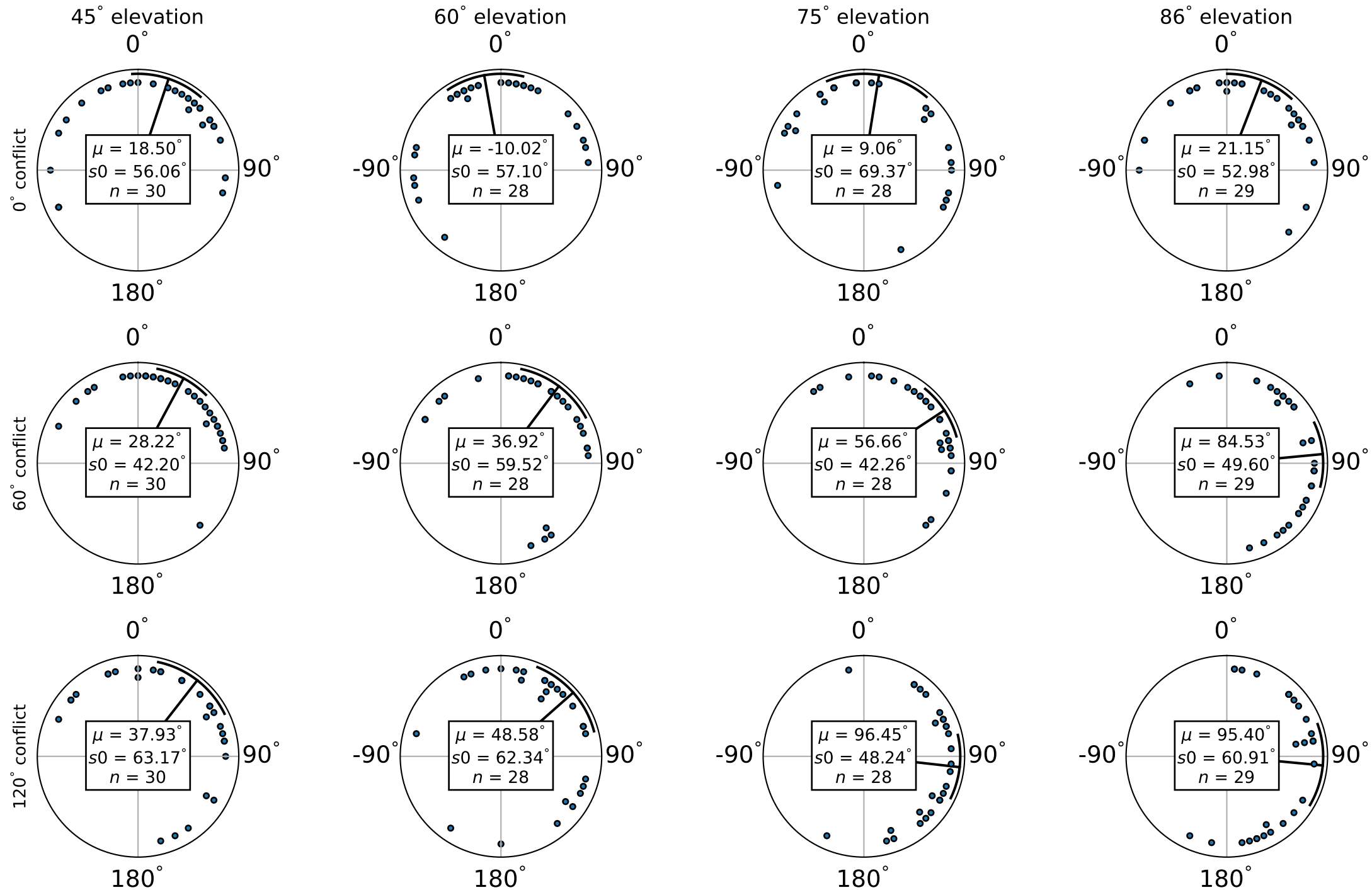
## Changes in precision when adding or removing a cue



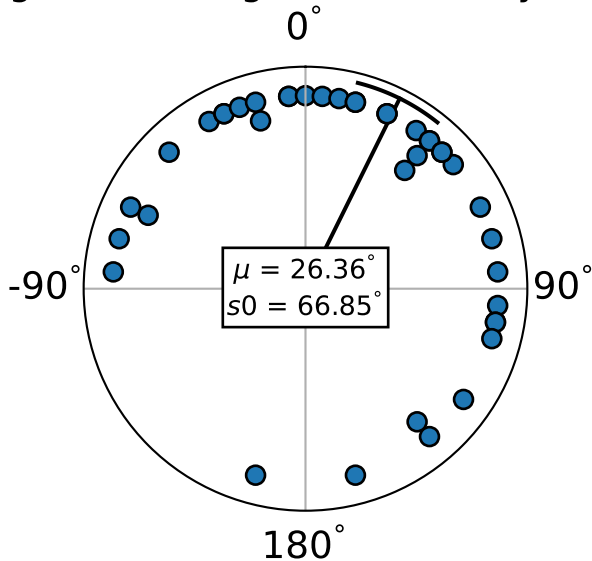
# 1.25m/s wind speed



# 2.5m/s wind speed

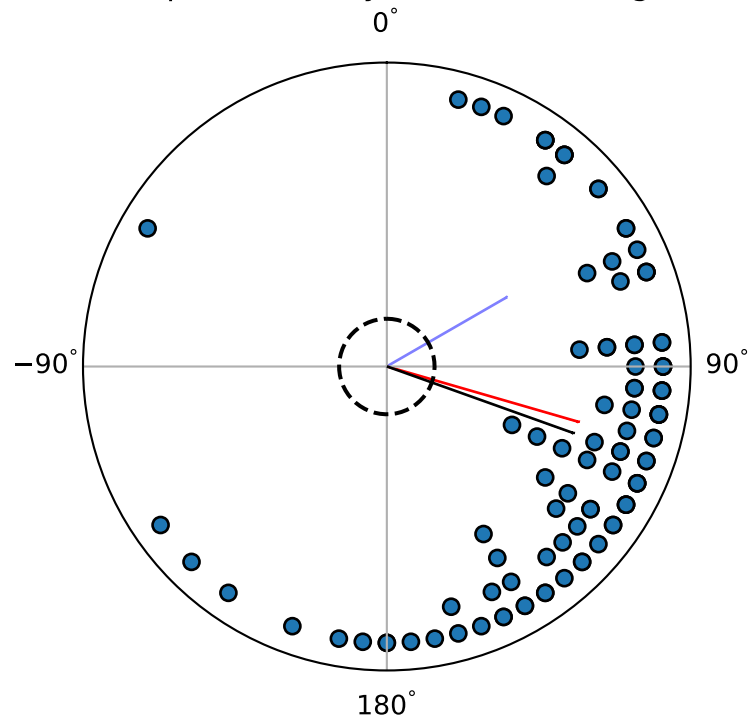


# Change in heading after modality transfer

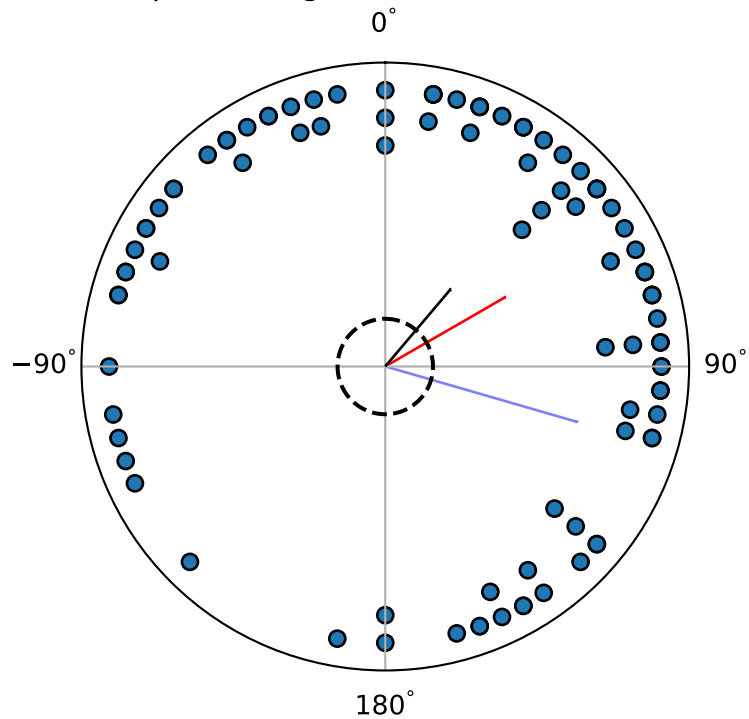




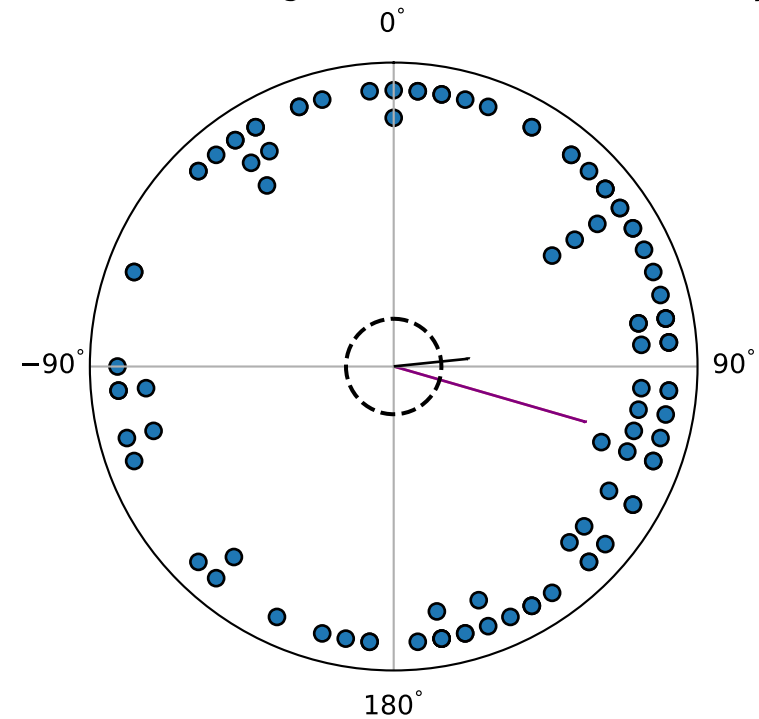
A) Equal reliability, different strength



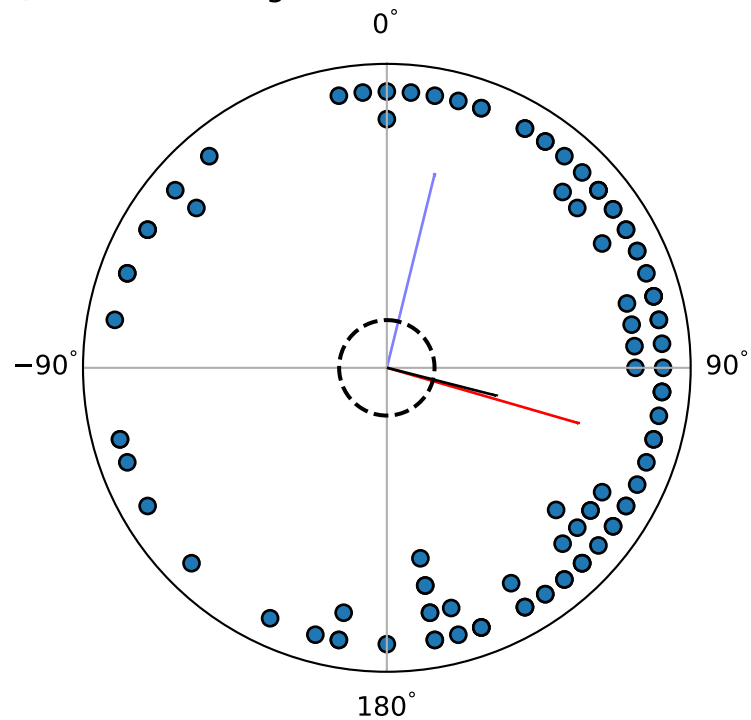
B) Equal strength, different reliabilities



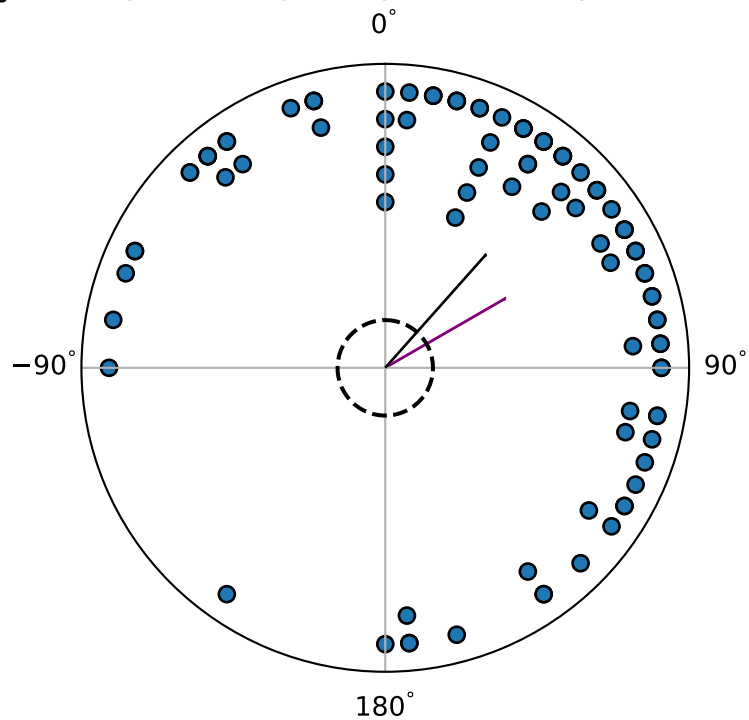
C) Relative strength matches relative reliability



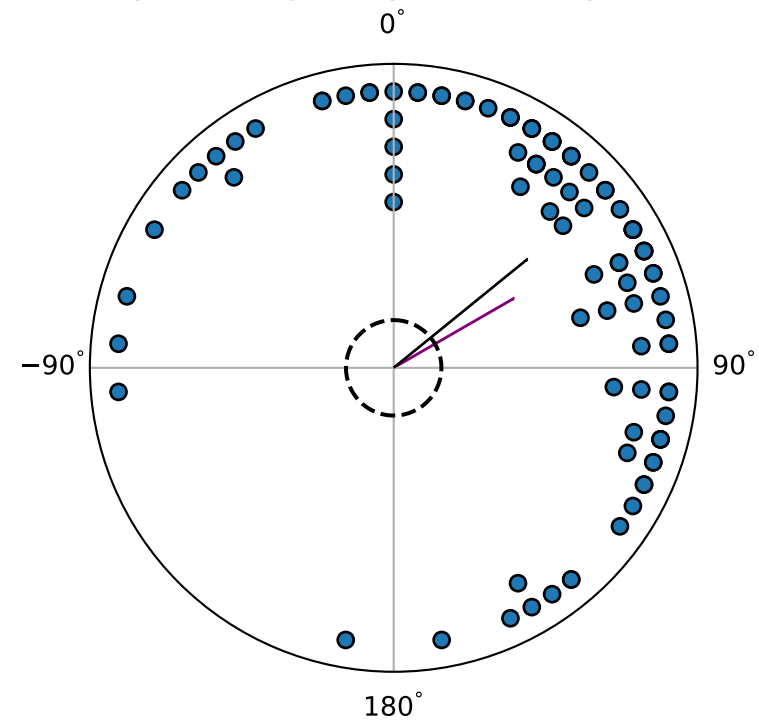
D) Relative strength inverse of relative reliability

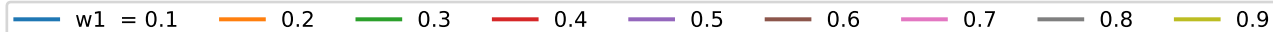
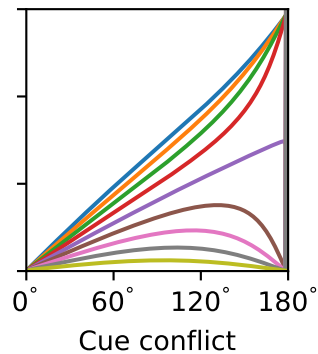
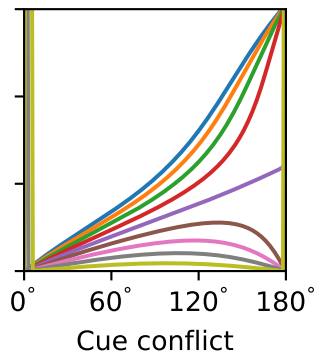
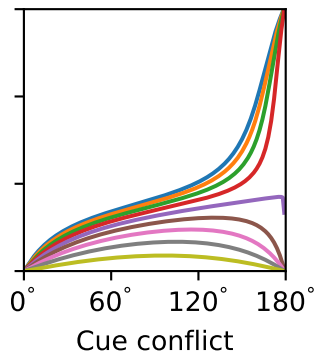
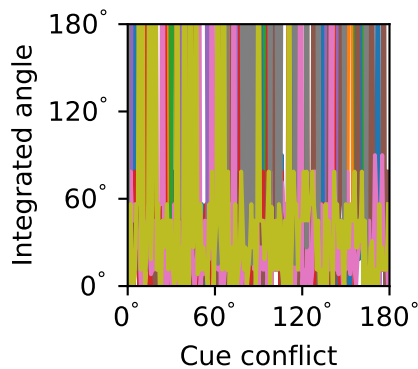
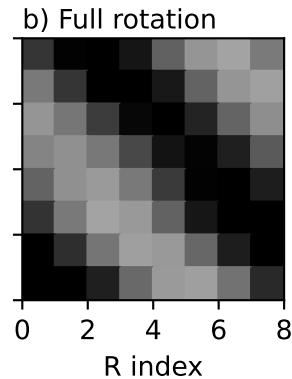
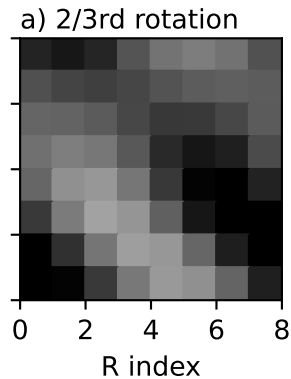
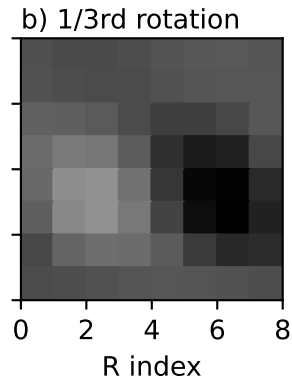
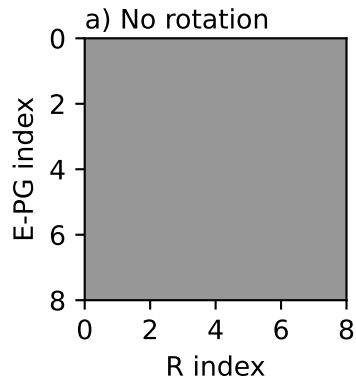


E) Equal strength, equal reliability ( $\kappa = 2$ )

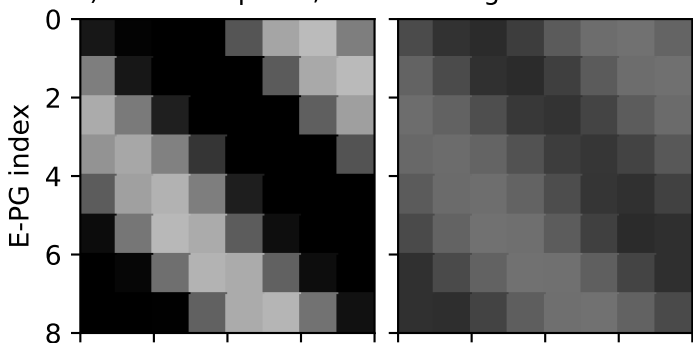


F) Equal strength, equal reliability ( $\kappa = 4$ )

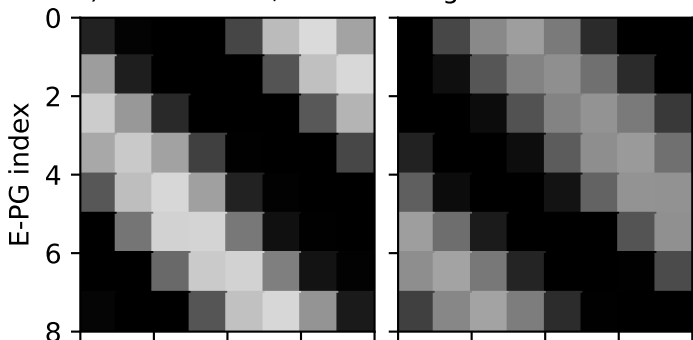




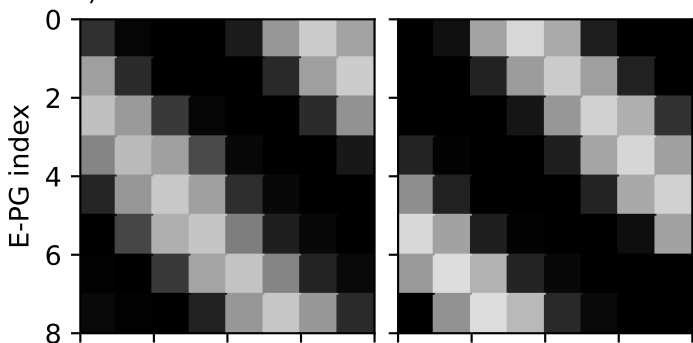
a) Initial snapshot, Cue 1 strong



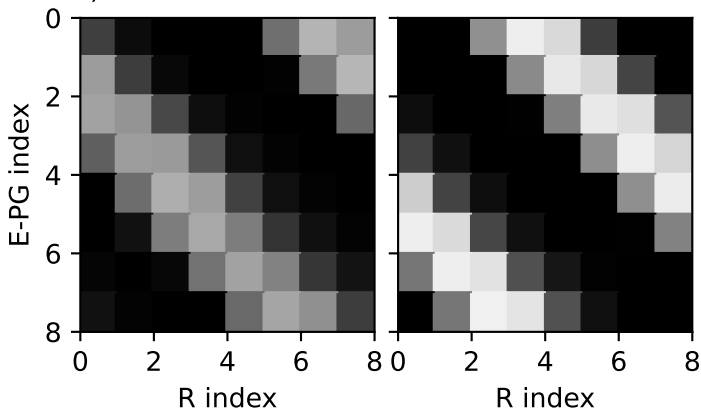
b) 1st iteration, Cue 2 strong



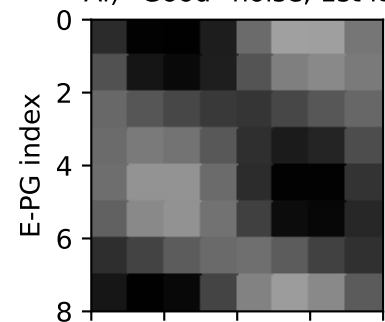
c) 2nd iteration



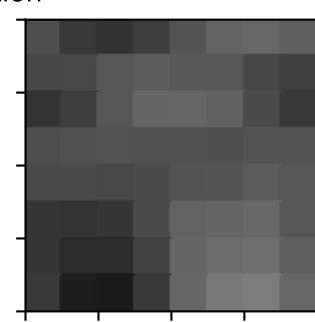
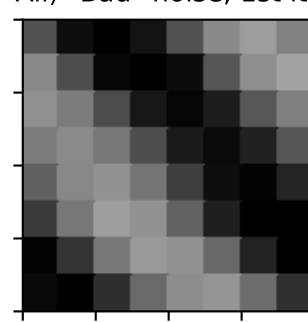
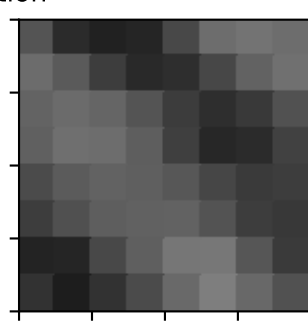
d) 3rd iteration



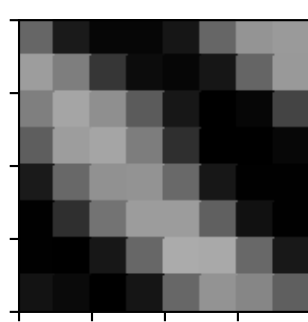
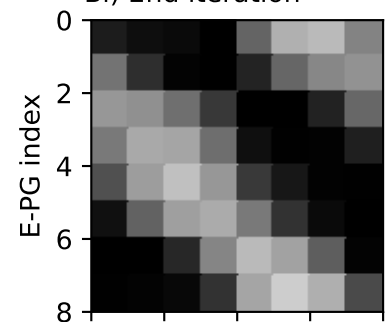
Ai) "Good" noise, 1st iteration



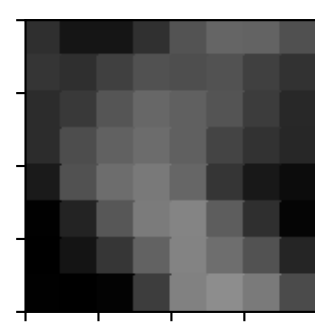
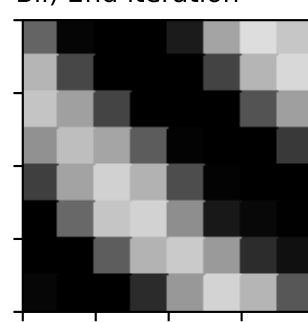
Aii) "Bad" noise, 1st iteration



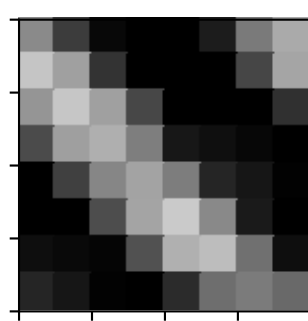
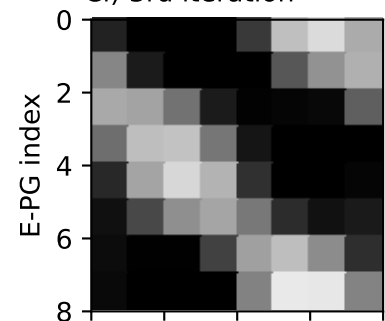
Bi) 2nd iteration



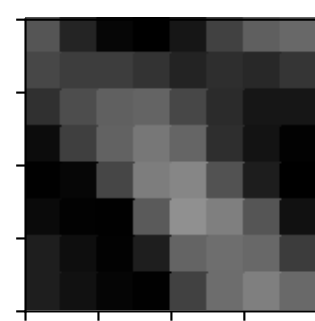
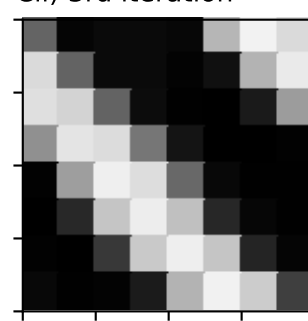
Bii) 2nd iteration



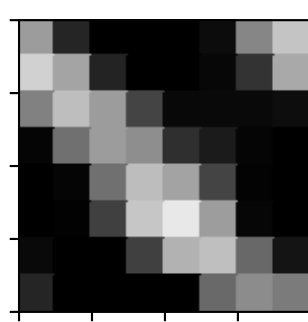
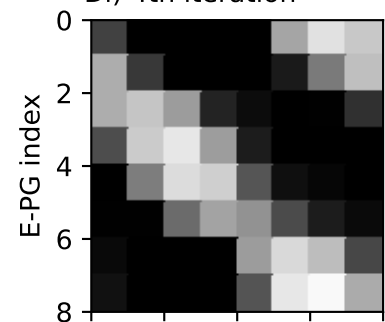
Ci) 3rd iteration



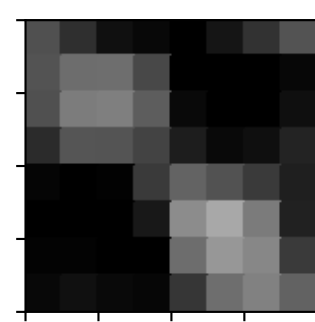
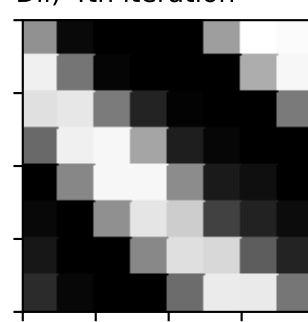
Cii) 3rd iteration



Di) 4th iteration



Dii) 4th iteration

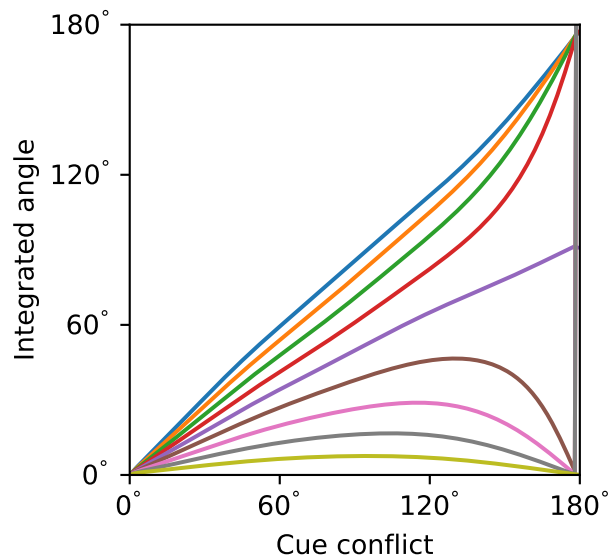
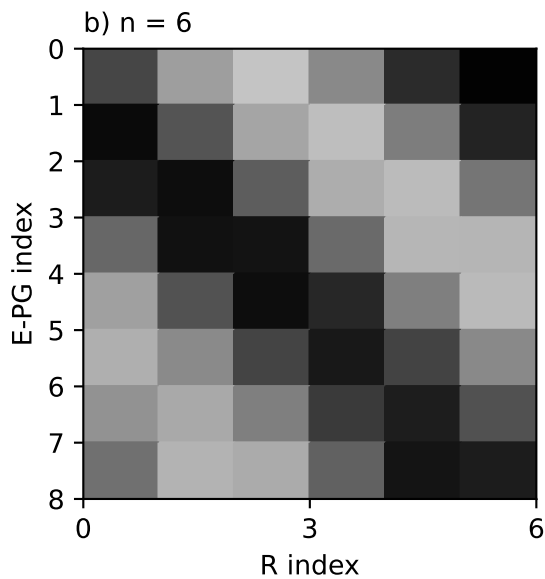
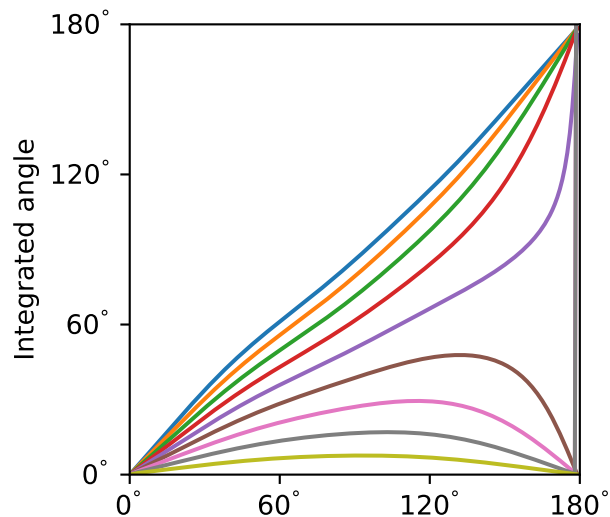
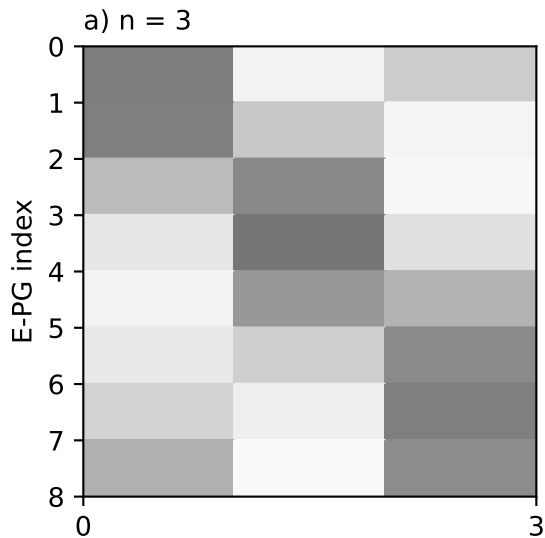


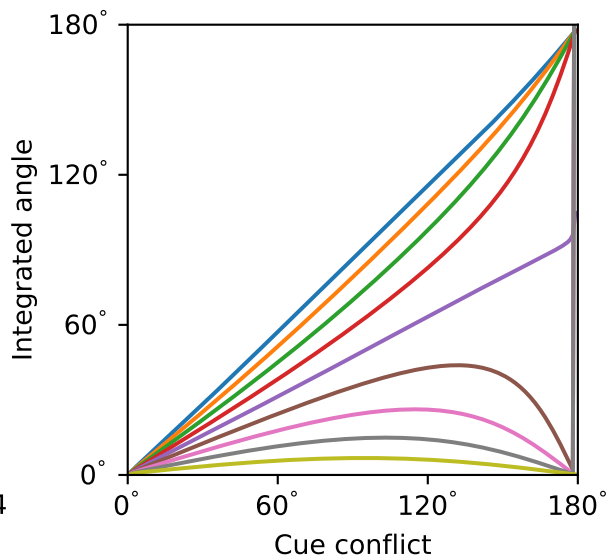
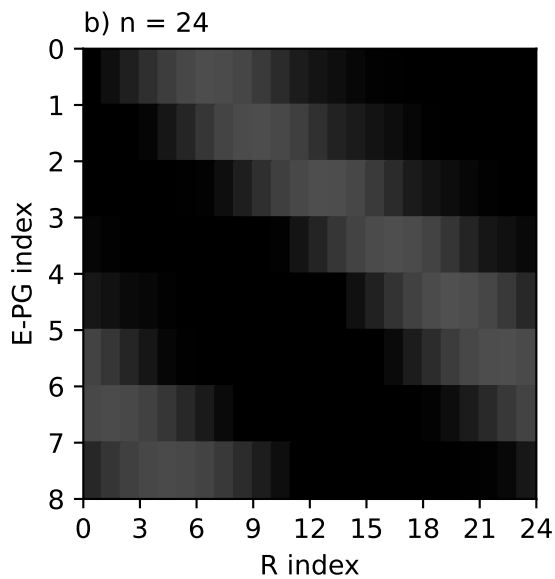
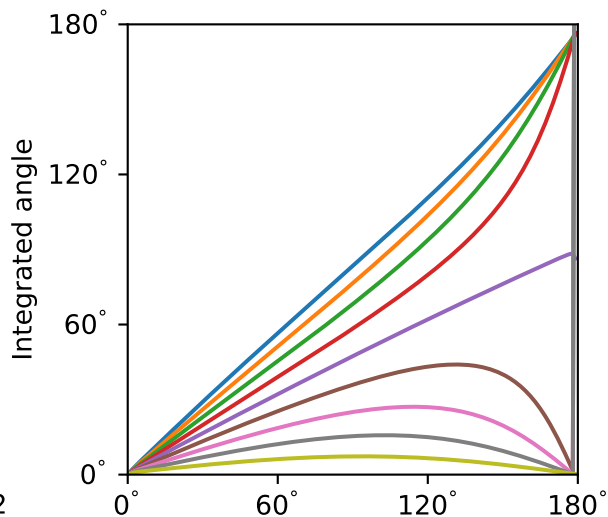
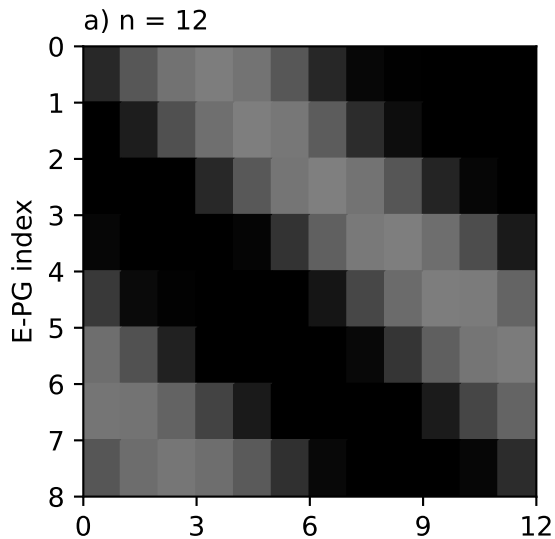
R index

R index

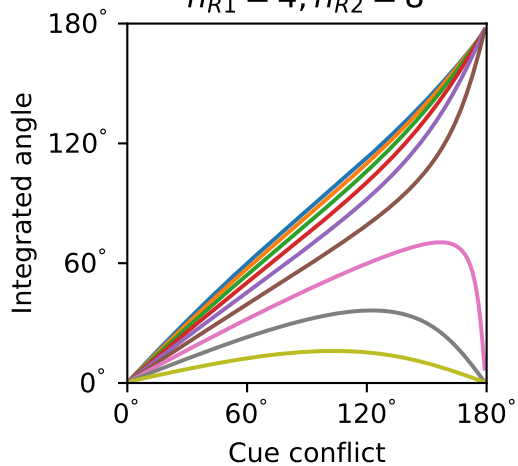
R index

R index

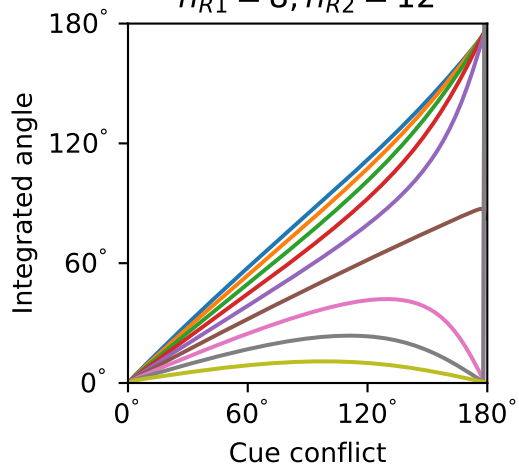




$n_{R1} = 4, n_{R2} = 8$

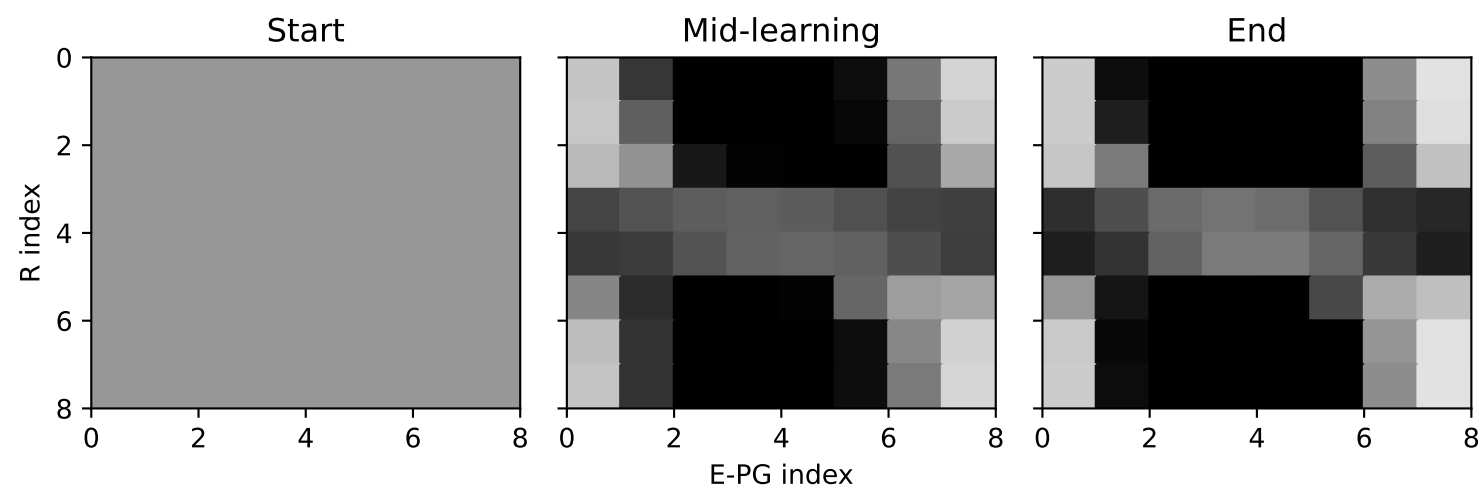
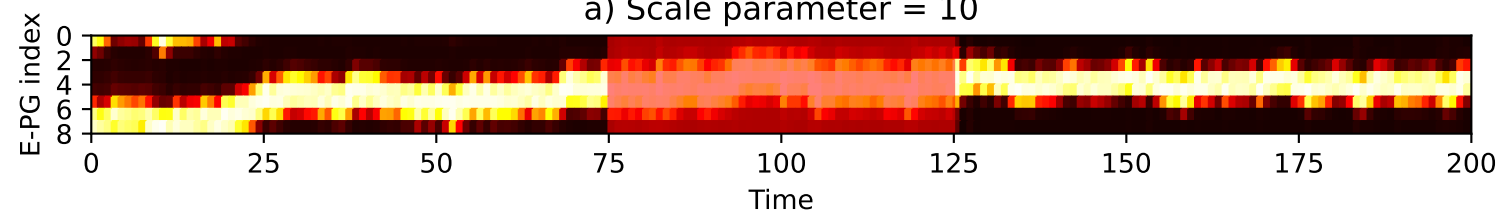


$n_{R1} = 8, n_{R2} = 12$

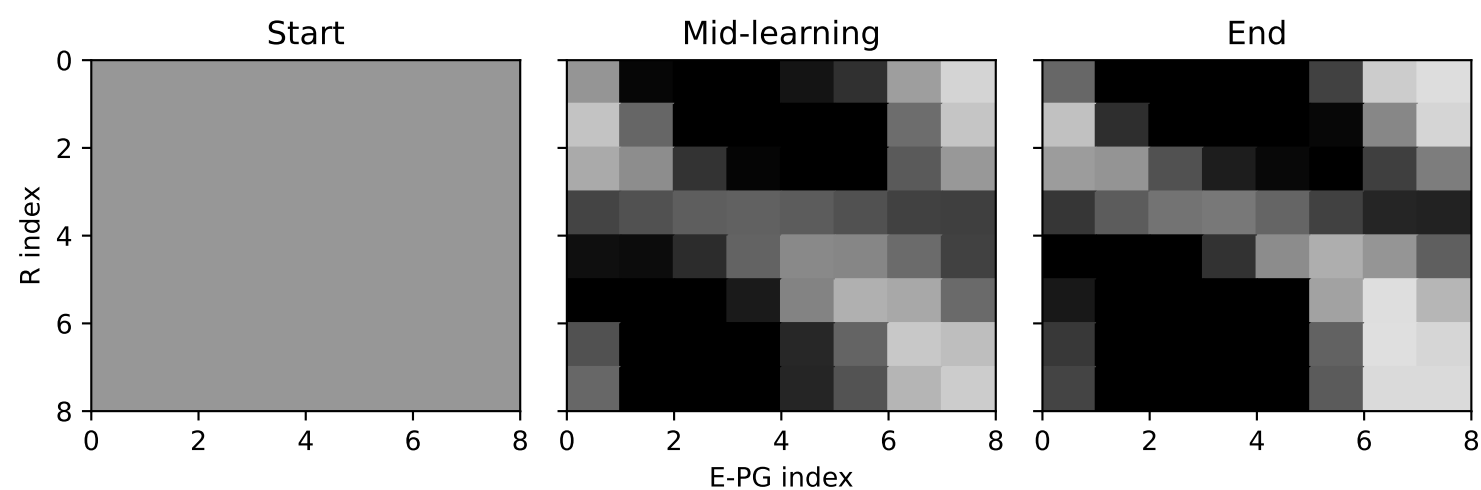
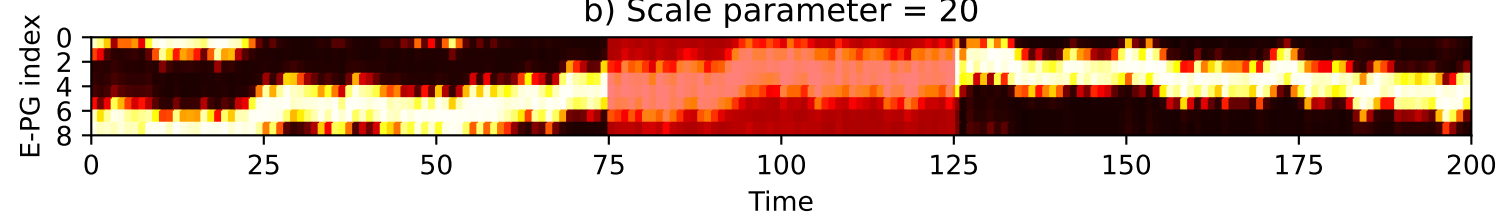


$w1 = 0.1$  0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9

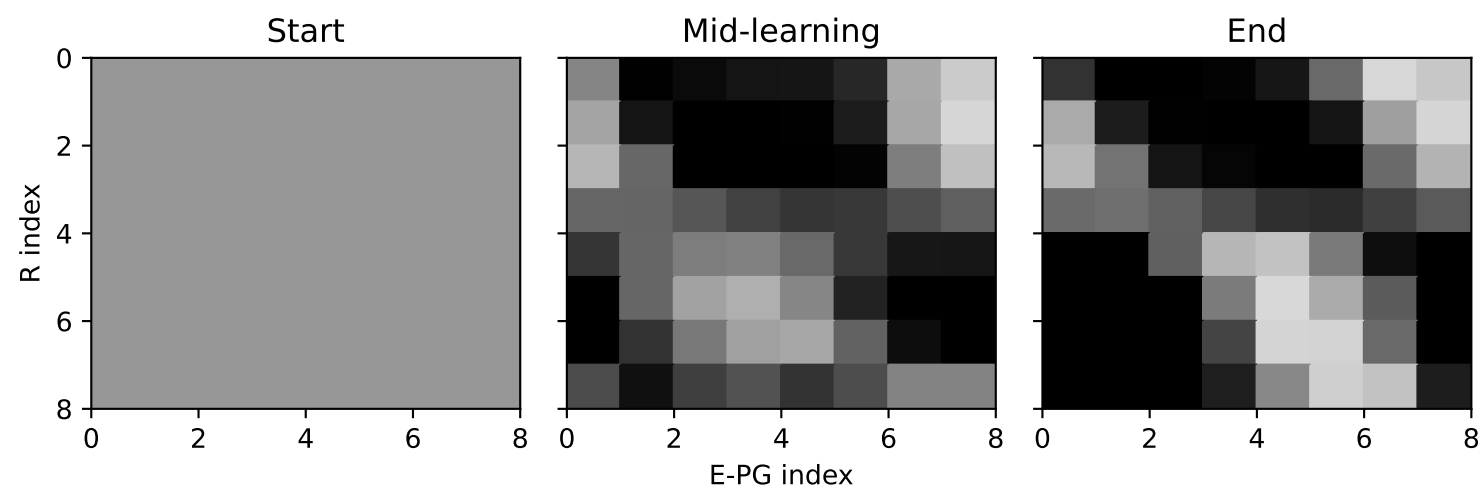
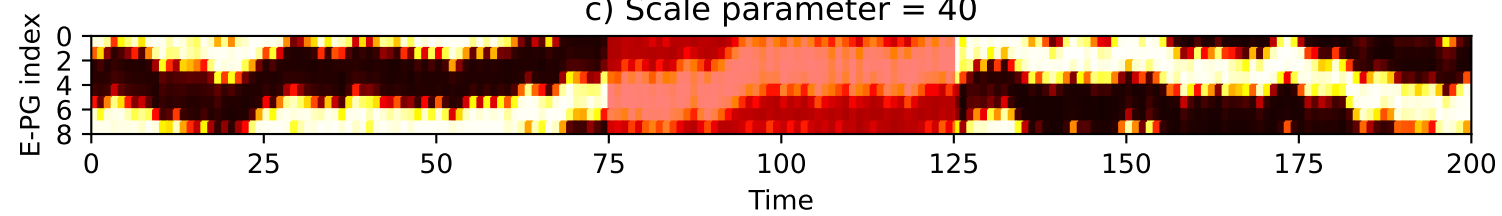
a) Scale parameter = 10



b) Scale parameter = 20

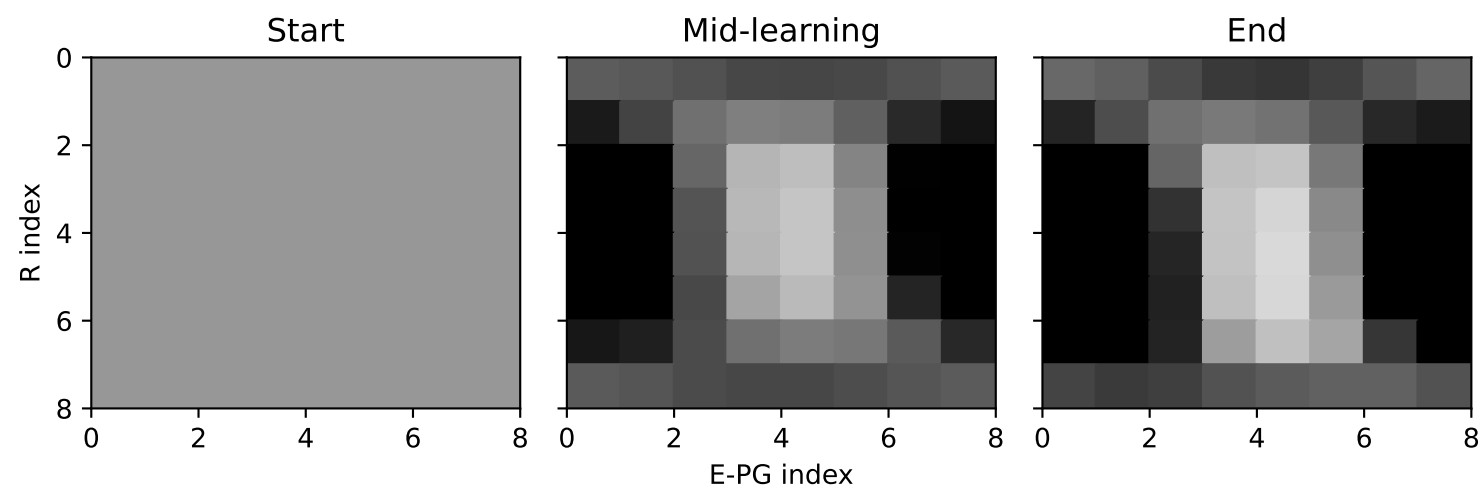
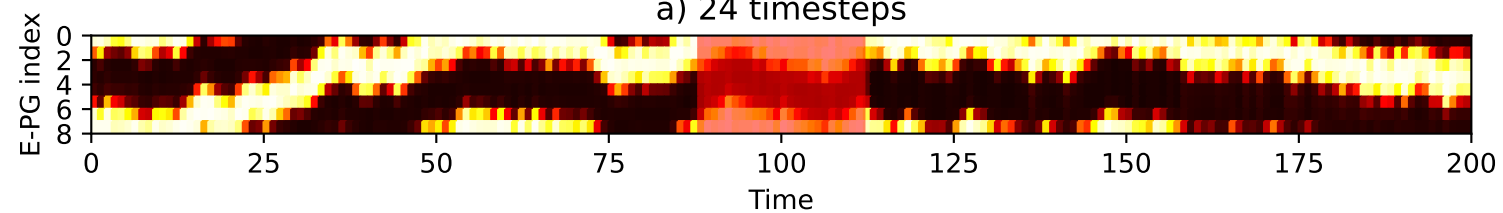


c) Scale parameter = 40

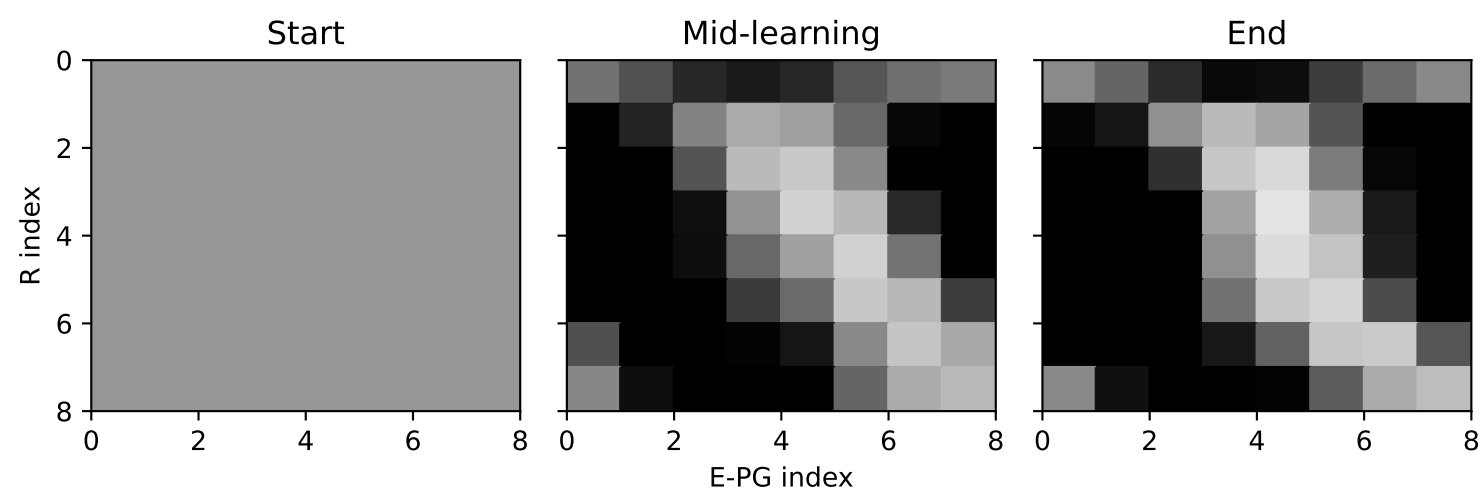
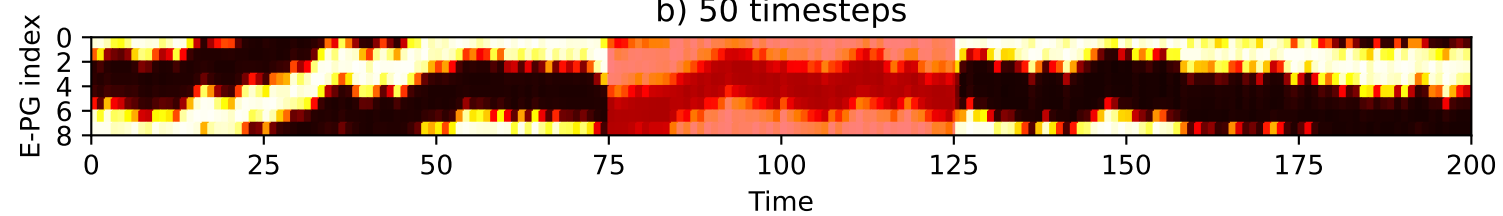




a) 24 timesteps



b) 50 timesteps



c) 100 timesteps

