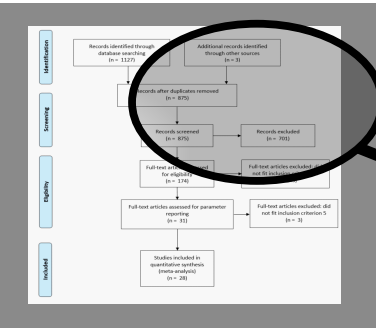
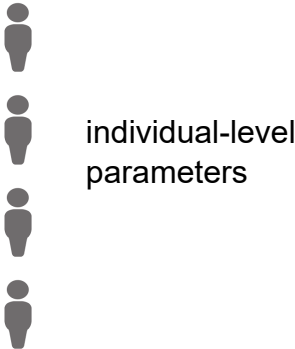


1. Paper selection

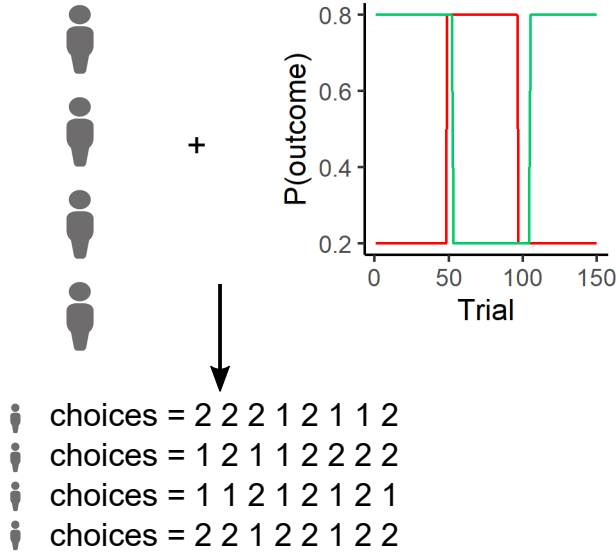


2. Extract parameters of winning model from paper



3A. Conventional meta-analysis

3B. Feed parameters from all individuals from the paper into a simulated task, using winning model from that paper



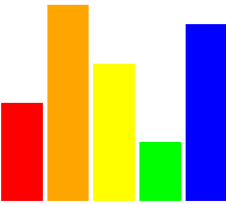
4. Repeat process for all papers and concatenate all choices

choices = 2 2 2 1 2 1 1 2  
choices = 1 1 2 1 2 1 2 1  
choices = 2 2 1 2 2 1 2 2  
choices = 2 2 2 1 2 1 1 2  
choices = 1 1 2 1 2 1 2 1  
choices = 2 2 1 2 2 1 2 2  
choices = 2 2 2 1 2 1 1 2  
choices = 1 1 2 1 2 1 2 1  
choices = 2 2 1 2 2 1 2 2

5. Fit a variety of models to the data

Model	Learning rate	Sensitivity	Noise	Bias terms
1lr1b	1 $\alpha$		1 $\beta$	
1lr2b	1 $\alpha$		2 $\beta$	
2lr1b	2 $\alpha$		1 $\beta$	
2lr2b	2 $\alpha$		2 $\beta$	
1lr1s	1 $\alpha$	1 $\rho$		
1lr2s	1 $\alpha$	2 $\rho$		
2lr1s	2 $\alpha$	1 $\rho$		
2lr2s	2 $\alpha$	2 $\rho$		
1lr1s1lapse	1 $\alpha$	1 $\rho$	1 $\xi$	
1lr2s1lapse	1 $\alpha$	2 $\rho$	1 $\xi$	

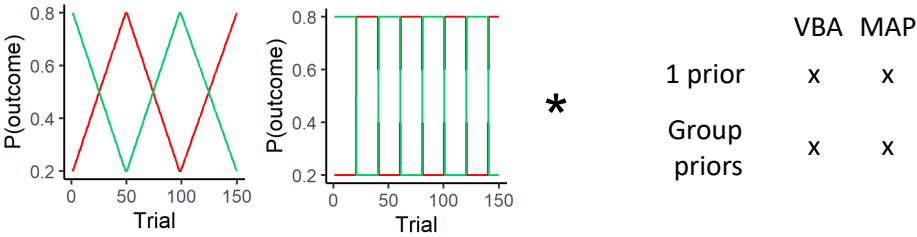
6. Bayesian Model Averaging: Model weights calculated



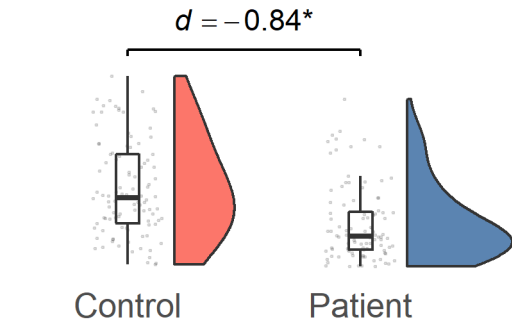
7. Bayesian Model Averaging: Extract parameters for all participants

Participant number	Learning rate	Sensitivity
1	0.02	1.3
2	0.34	0.94
3	0.23	1.08
4	0.11	1.4

8. Repeat for other tasks and using a variety of estimation methods



9. Perform omnibus multivariate inference using BMA parameters and do parameter-wise inference



10. Comparison of multiple approaches

