

## **Supplementary Information**

### **Observational learning strategies impact the neural correlates of declarative memory formation**

Batel Yifrah, Genela Morris & Avi Mendelsohn

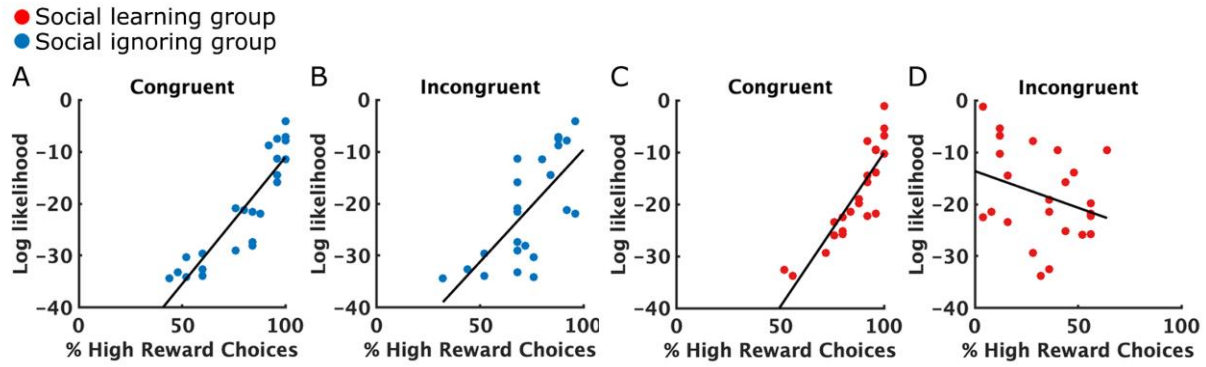


**Figure S1. Model fit vs. RL performance.** Model fit as a function of behavioral performance, operationalized as the percentage of high reward choices, analyzed separately for each cue-pair condition and group. **(A)** Correlation between model fit and behavioral performance of the ‘Social ignoring’ group in congruent trials ( $r = 0.82$ ,  $p < 0.0001$ ). **(B)** Correlation between model fit and behavioral performance of the ‘Social ignoring’ group in incongruent trials ( $r = 0.47$ ,  $p < 0.05$ ). **(C)** Correlation between model fit and behavioral performance of the ‘Social learning’ group in congruent trials ( $r = 0.84$ ,  $p < 0.0001$ ). **(D)** Correlation between model fit and behavioral performance of the ‘Social learning’ group in incongruent trials ( $r = -0.48$ ,  $p < 0.05$ ). Note that log-likelihoods in panels A and B, as well as in C-D are identical, as the model fit was performed across pairs.

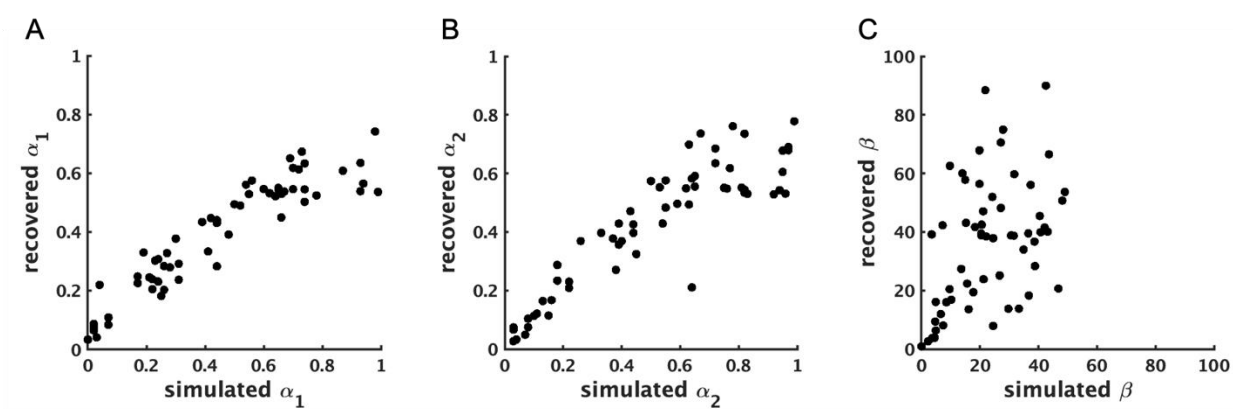


**Figure S2. Parameter recovery for the twoAlphas exp/obs model.** Simulated vs. recovered parameters values, shown for (A) learning-rate 1 ( $r = 0.925$ ), (B) learning-rate 2 ( $r = 0.896$ ), and (C) inverse temperature ( $r = 0.440$ ).