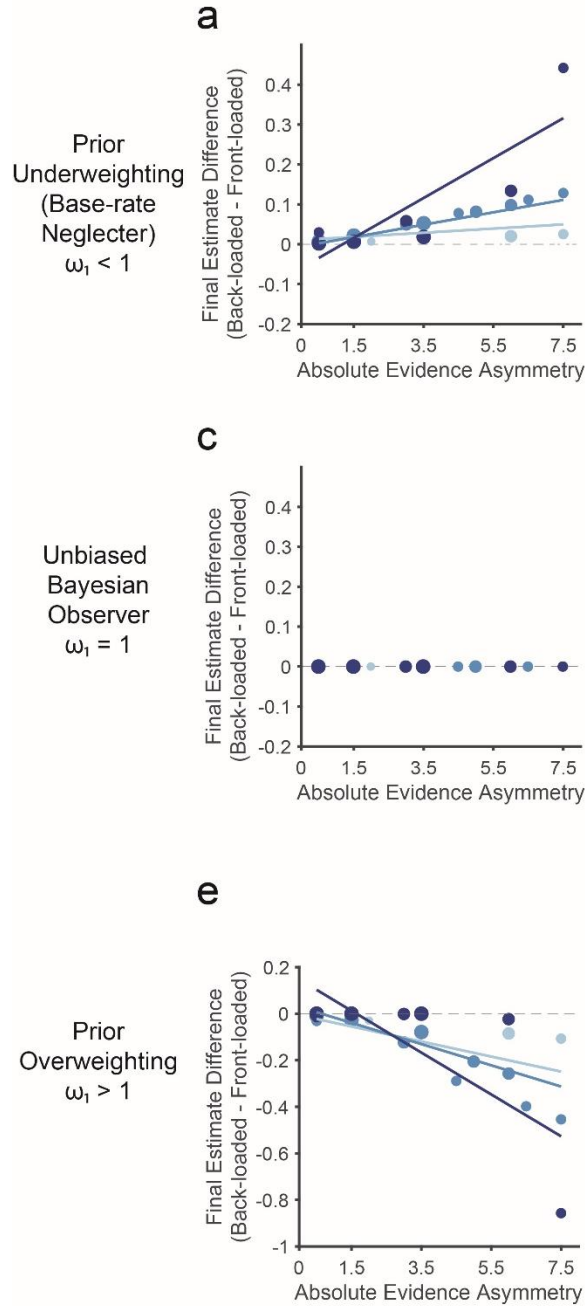


51:49 60:40 90:10



**S2 Fig. Condition-wise simulations of the final estimate difference and prior-dependent updating as a function of  $\omega_1$  and  $\omega_2$ .** (a, c, e) Simulation of the final estimate difference, including all three bead ratio conditions (51:49, 60:40, 90:10) for a (a) base-rate neglecting

agent ( $\omega_1 = 0.87$ , consistent with the base-rate neglecting agent simulated in Fig 2), **(c)** an unbiased Bayesian observer ( $\omega_1 = 1.0$ ; all data points fall on the 0 line on the y-axis, so some data points are not visible because they overlap) and a **(e)** prior overweighting agent ( $\omega_1 = 1.12$ ; an equivalent  $\omega_1$  above 1 as the prior underweighting agent's  $\omega_1$  is below 1). The model predicts an interaction between bead-ratio condition and the final estimate difference for the prior underweighting and the prior overweighting agents. Methods are consistent with those described in Fig 2b.