

US expectancies

Participants exhibited successful differential learning in the first session, indicated by a significant cue x trial interaction, $F(1, 42) = 351.34, p < .001, \eta_p^2 = 0.89$. On the last trial of acquisition, participants indicated a higher US expectancy for the CS+ than the CS-, $t(58) = 37.49, p < .001$. This pattern did not differ between the groups, group x cue x trial interaction, $F(3, 42) < 1$, suggesting similar acquisition of US expectancies across all participants (see Figure 2). During the second session, groups PrPr, PrPl and PlPl responded comparably to the retrieval trial, main effect of group, $F(2, 40) < 1$. From the end of acquisition to the beginning of retention testing on Day 3, differential US expectancies decreased, cue x trial interaction, $F(1, 53) = 25.36, p < .001, \eta_p^2 = 0.32$, comparably across all groups, group x cue x trial interaction, $F(3, 53) < 1$, yet clear differential responding remained for all groups at the beginning of retention testing, main effect of cue, $F(1, 54) = 179.70, p < .001, \eta_p^2 = 0.77$; group x cue interaction, $F(3, 54) < 1$. Differential US expectancies were extinguished over the course of retention testing, cue x trial interaction, $F(1, 54) = 153.93, p < .001, \eta_p^2 = 0.74$, with no differences between the groups, group x cue x trial interaction, $F(3, 54) < 1$. From the last trial of extinction to the first trial of reinstatement testing, a significant cue by trial interaction emerged, pointing to differential reinstatement in US expectancies, $F(1, 48) = 42.14, p < .001, \eta_p^2 = 0.47$, that did not differ between the groups, group x cue x trial interaction, $F(3, 54) < 1$. In sum, in accordance with our hypothesis, propranolol administration did not affect declarative responding, as we observed retention of differential US expectancies at the beginning of the third session, as well as their reinstatement after successful extinction.

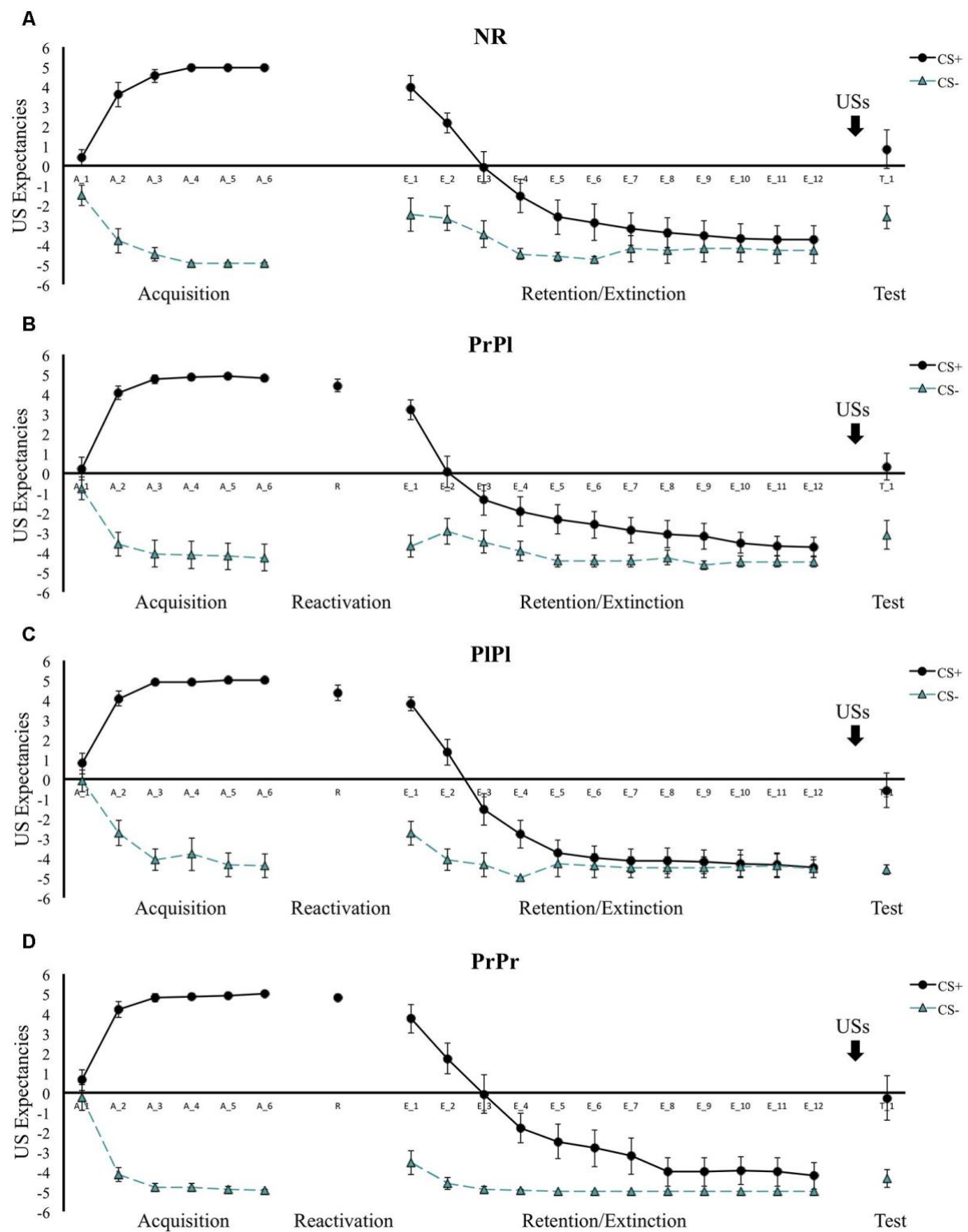


Figure 2. Mean US expectancies across all phases for (A) the NR group, (B) the PrPI group, (C) the PIPI group, and (D) the PrPr group. Error bars represent standard error of the mean.