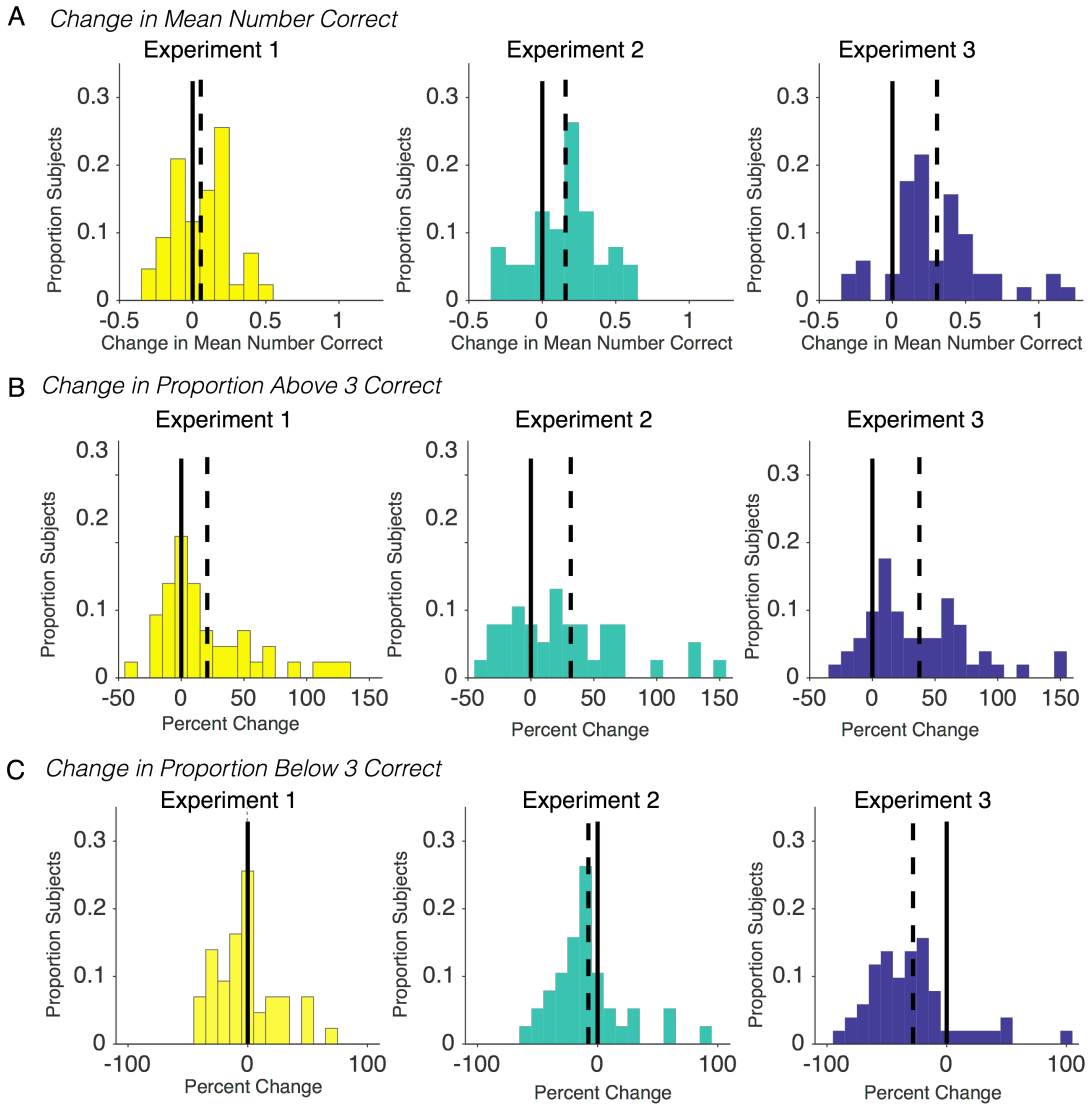
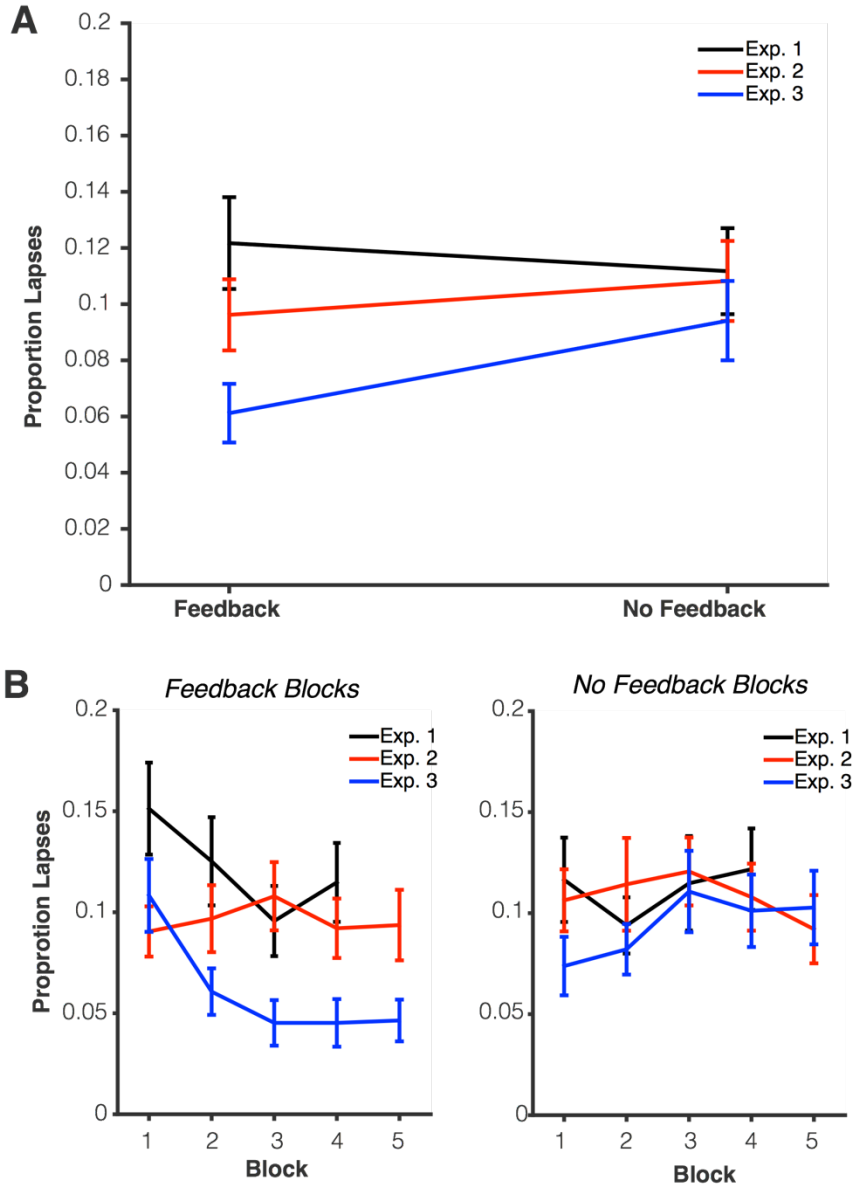
Supplemental Material



Supplementary Figure 1. *Feedback-induced change for individual subjects.* Solid lines demarcate no change, and dotted lines represent the mean of all subjects. (A) Change in the mean number of items correct. (B) Percent change in the prevalence of good-performance trials relative to prevalence in the no-feedback condition. (C) Percent change in the prevalence of poor-performance trials relative to prevalence in the no-feedback condition.



Supplementary Figure 2. *Carry-over effects of the feedback manipulations.* (A) The proportion of lapses in the feedback and no feedback conditions by Experiment. Because conditions were counter-balanced, this figure depicts only the subjects who received the feedback condition first. (B) Lapse rate in the feedback and no-feedback condition as a function of block number.

We tested whether feedback led to carryover benefits, whereby receiving feedback in the first half of the experiment might lead to persistent performance benefits after feedback is taken away (Figure S1). A mixed-design ANOVA with Feedback Condition as a within-subjects factor and Experiment as a between-subjects factor revealed no overall difference of Feedback Condition, $F(1,69) = 3.11$, $p = .08$, or of Experiment, $F(2,69) = 2.59$, $p = .08$. However, there was a significant Feedback Condition*Experiment interaction,

$F(2,69) = 3.78$, $p = .03$. Follow-up one-way ANOVAs for the feedback and no-feedback condition revealed that the interaction is driven by a significant difference between groups during the feedback, $F(2,69) = 5.7$, $p < .01$, and no significant difference between groups during the no feedback condition, $F(2,69) = 0.4$, $p = .65$. Thus, while our three feedback manipulations led to performance differences when feedback was present, this between-group difference did not persist after feedback was taken away. Instead, all groups appear to return to a similar "lapse baseline rate."

Next, we checked to see if carry-over effects were obscured because our analysis was too coarse. That is, perhaps carry-over effects only persist for the first block of no-feedback trials after the feedback is taken away. However, there is no significant difference between experimental groups even during the first block of the no feedback condition, $F(2,69) = 1.85$, $p = .17$. Thus, if there is a subtle lingering effect of the feedback benefit, we do not have the power to detect it in this sample. Instead, the current results suggest that the the observed feedback benefits are contingent upon continuously receiving feedback.