

Fig. S1a: Individual training results of Group 1 (N=9), for the isolated letter identification task, performed in Phase 1. Note that here (and in Fig. S2b) the ordinate is the contrast threshold for comparison with our previous studies (Fig. 2 in the manuscript shows the contrast sensitivity, i.e.,  $1/\text{threshold}$ ). Error bars represent  $\pm 1$  SEM. The lines are exponential fits to the data, with the constraint that the asymptote is fixed to the geometric mean of the last 10 blocks. The unsigned time constant ( $\tau$ ) shown in each panel, represents the rate of learning, i.e., the training block at which threshold is lowered by 37.6 percent.

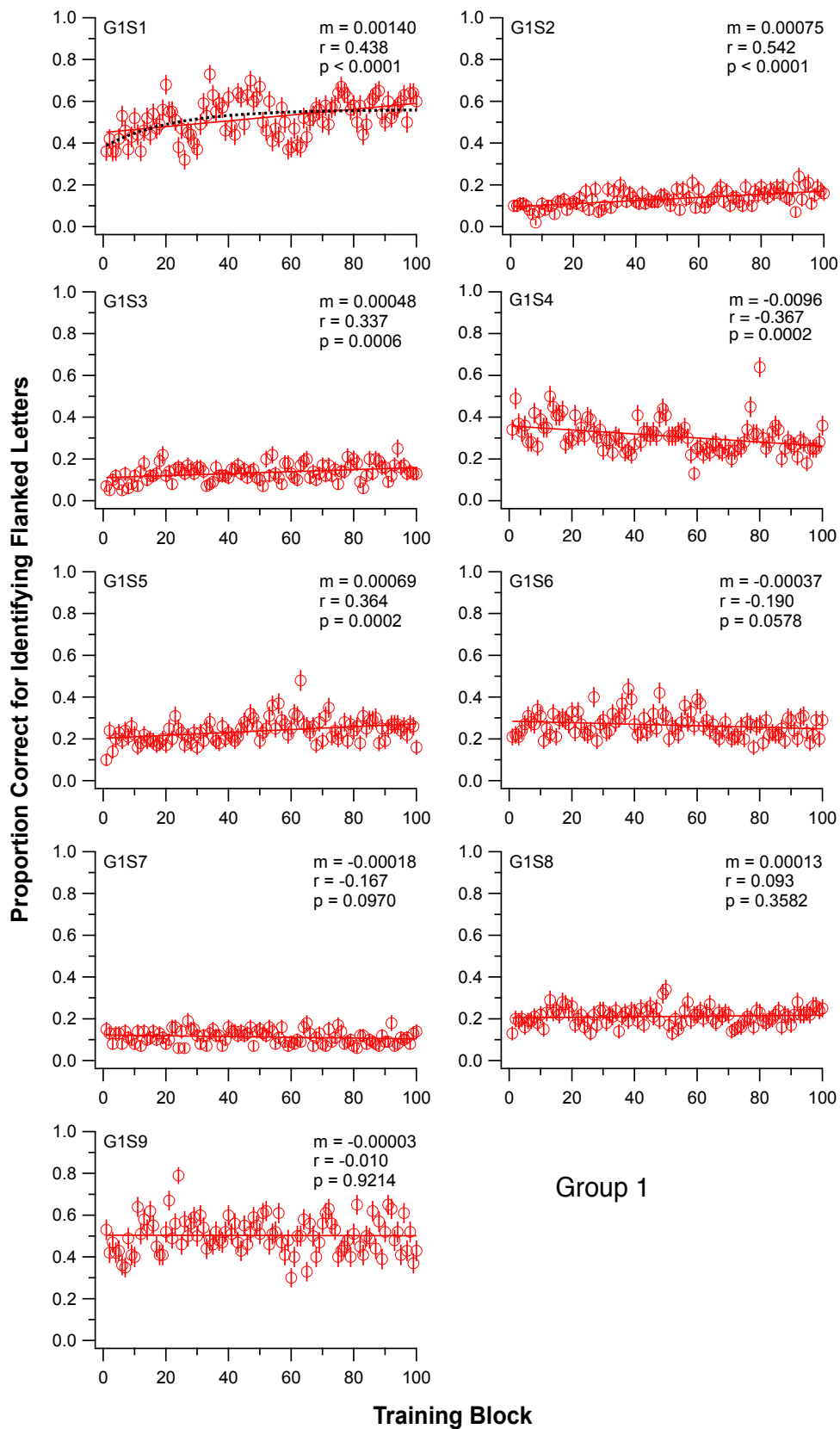


Fig. S1b: Individual training results of Group 1 (N=9), for the flanked letter identification task, performed in Phase 2. Error bars represent  $\pm 1$  SEM. The red lines are a linear function to describe each individual observer's set of data. Also shown for observer G1S1 is the exponential fit (black line) for comparison. The values shown in each panel represent the slope, correlation coefficient and p value.

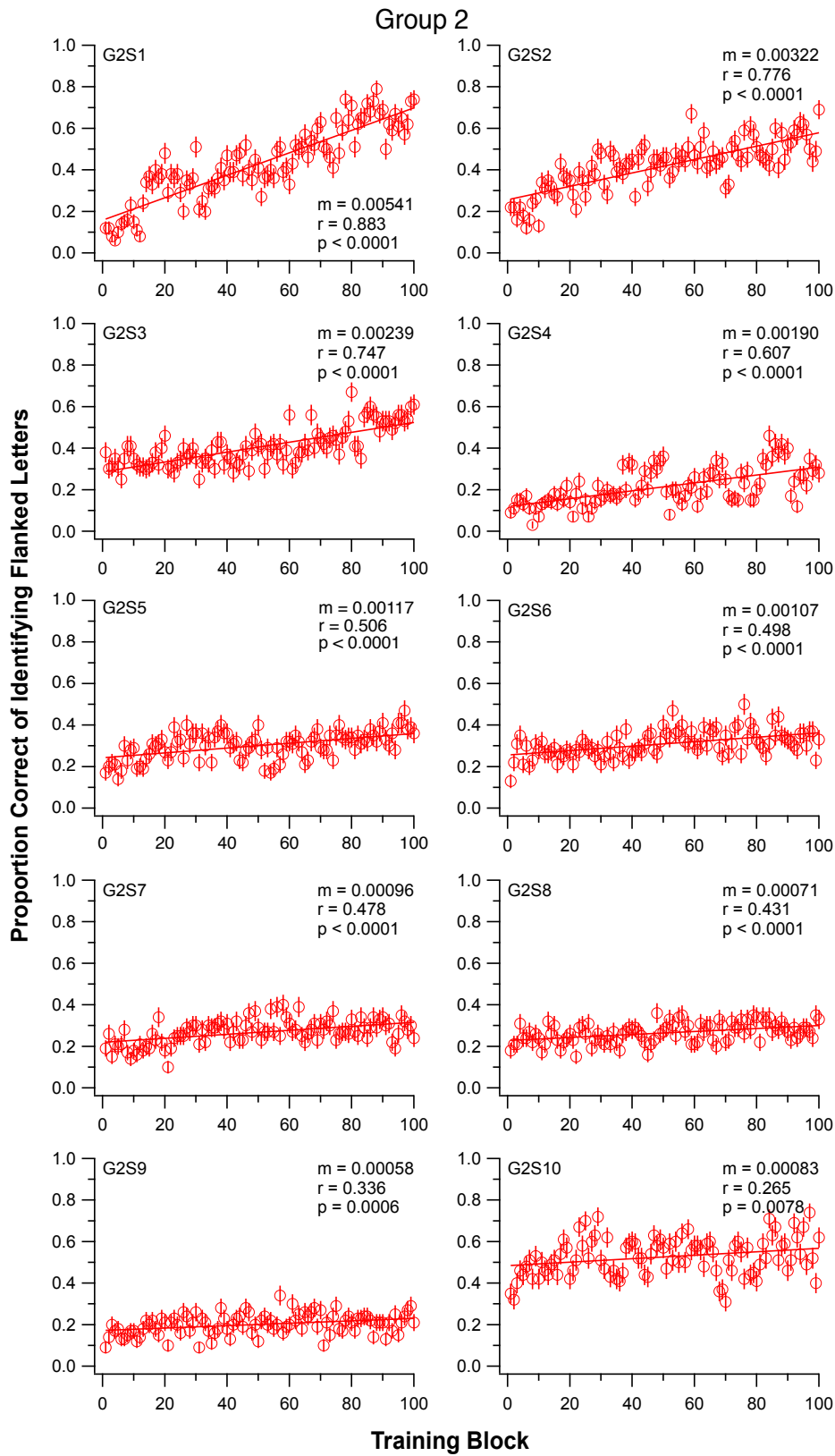


Fig. S2a: Individual training results of Group 2 (N=10), for the flanked letter identification task, performed in Phase 1. Error bars represent  $\pm 1$  SEM. The red lines are a linear function to describe each individual observer's set of data. The values shown in each panel represent the slope, correlation coefficient and p value.

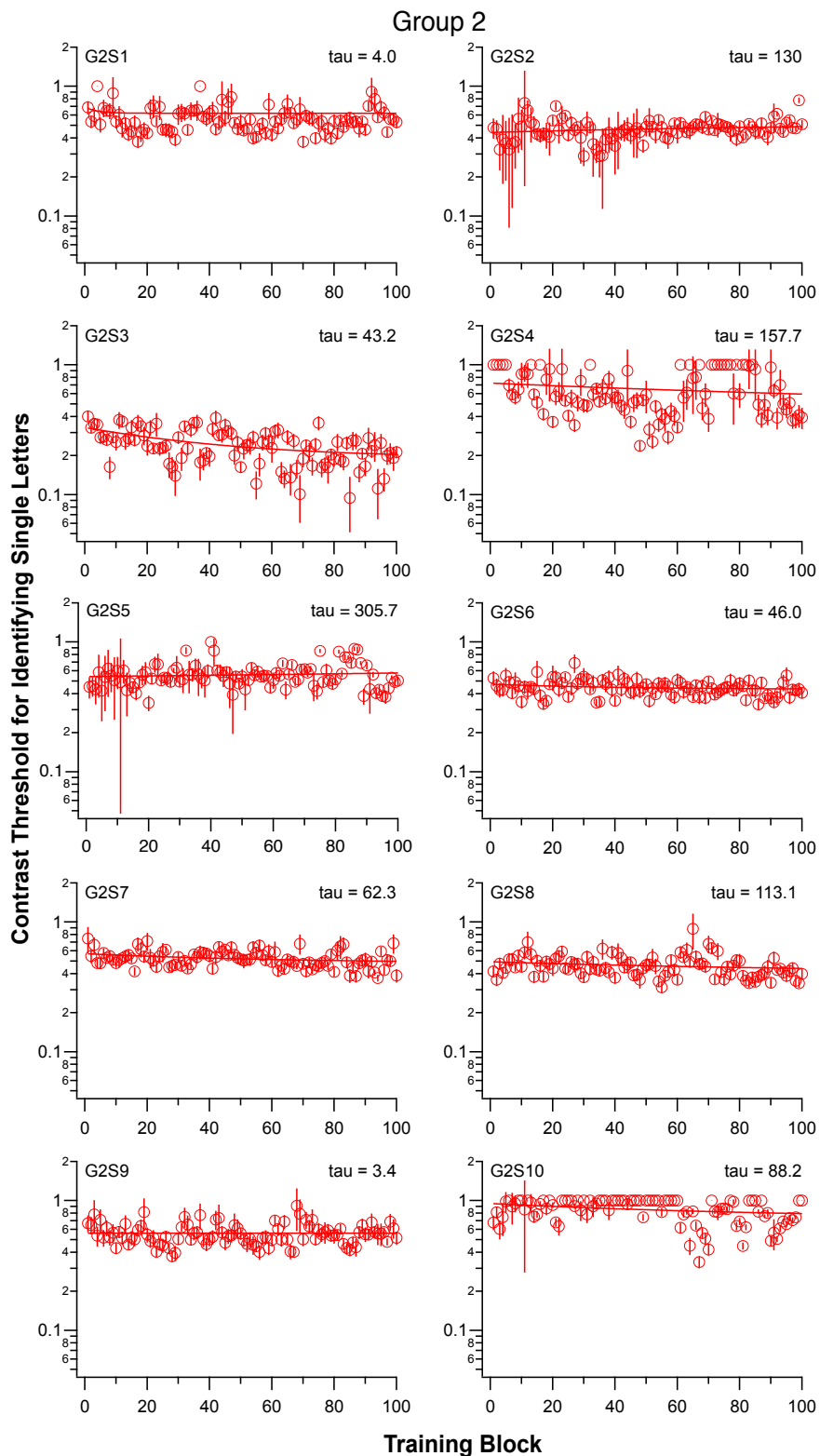


Fig. S2b: Individual training results of Group 1 (N=10), for the isolated letter identification task, performed in Phase 2. Error bars represent  $\pm 1$  SEM. The lines are exponential fits to the data, with the constraint that the asymptote is fixed to the geometric mean of the last 10 blocks. The unsigned time constant ( $\tau$ ) shown in each panel, represents the rate of learning, i.e., the training block at which threshold is lowered by 37.6 percent.