



**Figure S1.** Results from fitting the three-component with non-target weights model to the data of Experiment 1. (A) Collapsing over target serial position revealed a reliable main effect of set size on the probability of storing targets,  $P_t$ ,  $F(2, 27) = 24.46$ ,  $p < 0.001$ ,  $\eta^2 = 0.64$ .  $P_t$  varied over target serial position for set size four,  $F(3, 27) = 8.54$ ,  $p < 0.001$ ,  $\eta^2 = 0.49$ , and five,  $F(4, 36) = 31.28$ ,  $p < 0.001$ ,  $\eta^2 = 0.78$ , but not for set size three,  $F(2, 18) = 1.56$ ,  $p = 0.24$ ,  $\eta^2 = 0.15$ . There was also a recency effect in  $P_t$ , with a linear trend over target serial positions for set sizes four,  $F(1, 9) = 15.9$ ,  $p < 0.01$ ,  $\eta^2 = 0.64$ , and five,  $F(1, 9) = 48.7$ ,  $p < 0.001$ ,  $\eta^2 = 0.84$ , but not for set size three,  $F < 1$ . The slope was smaller for set size three vs. four,  $t(18) = 3.68$ ,  $p < 0.01$ ,  $d = 1.65$ , and three vs. five,  $t(18) = 6.36$ ,  $p < 0.01$ ,  $d = 2.84$ , but not for set size four vs. five,  $t(18) = 1.89$ ,  $p = 0.08$ ,  $d = 0.84$ .  $P_t$  for the first item was higher than predicted by a linear trend over the remaining items for set size five,  $t(9) = 5.86$ ,  $p < 0.001$ ,  $d = 1.85$ , but not for set size four,  $t(9) = 2.12$ ,  $p = 0.06$ ,  $d = 0.67$ , or three,  $t(9) = 1.6$ ,  $p = 0.14$ ,  $d = 0.51$ . (B) There was no main effect of set size on precision,  $s.d.$ ,  $F(2, 27) = 2.69$ ,  $p = 0.09$ ,  $\eta^2 = 0.17$ , nor did  $s.d.$  reliably vary over target serial position for set size three,  $F < 1$ , four,  $F(3, 27) = 1.72$ ,  $p = 0.19$ ,  $\eta^2 = 0.16$ , or five,  $F(4, 36) = 1.19$ ,  $p = 0.33$ ,  $\eta^2 = 0.12$ . (C) There was a main effect of set size on guessing rate,  $P_g$ ,  $F(2, 27) = 4.03$ ,  $p < 0.05$ ,  $\eta^2 = 0.23$ .  $P_g$  reliably varied over target serial position for set size five,  $F(4, 36) = 2.78$ ,  $p < 0.05$ ,  $\eta^2 = 0.24$ , but not for set size three,  $F < 1$ , or four,  $F < 1$ . (D) There was a main effect of set size on the probability of reporting a non-target color,  $P_{nt}$ ,  $F(2, 27) = 11.29$ ,  $p < 0.001$ ,  $\eta^2 = 0.46$ .  $P_{nt}$  varied over target serial position for set size four,  $F(3, 27) = 5.78$ ,  $p < 0.01$ ,  $\eta^2 = 0.39$ , and five,  $F(4, 36) = 3.30$ ,  $p < 0.05$ ,  $\eta^2 = 0.27$ , but not for set size three,  $F(2, 18) = 1.90$ ,  $p = 0.18$ ,  $\eta^2 = 0.17$ . Mean estimates for each set size are depicted in the bar graphs on the right. Error bars indicate within-subject SEM, except for the bar graph, which depicts across-subject SEM for each set size condition. \*  $p < 0.05$ , \*\*\*  $p < 0.001$