**Figure S1.** Experiment 1, repetition effects. (A, B): Trialwise (A) latency and (B) peak velocity for the perceptual saccade task (black) and the saccade only task (red). Each dot is the latency or peak velocity for a given trial number averaged across individuals. Lines represent the best fitting linear regression. Due to very high latencies in the first few trials of the saccade only task, the first 25 trials have been omitted for the regressions in the saccade only task. (C, D): Data for (C) latency and (D) peak velocity from the upper row averaged across blocks and binned across 20 trials each. Error bars denote the 95% confidence interval of between-observer variability.