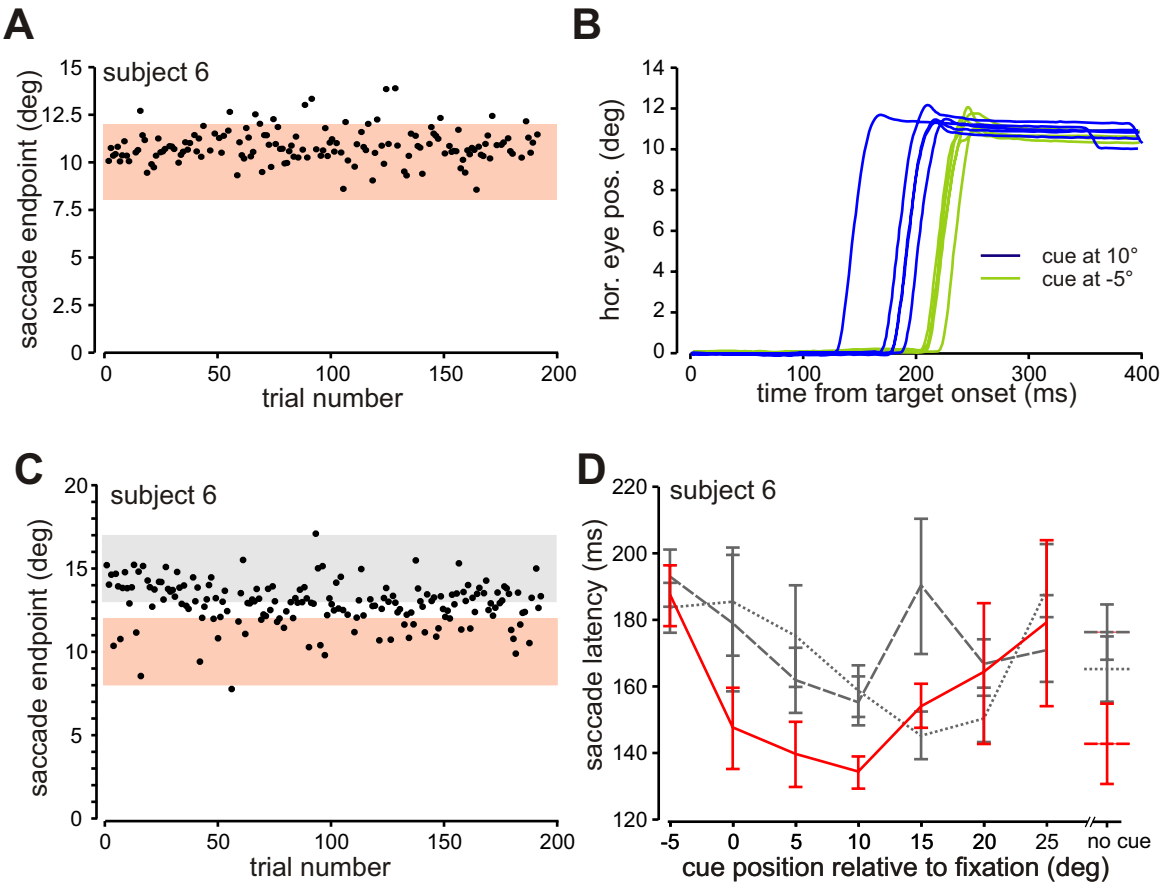
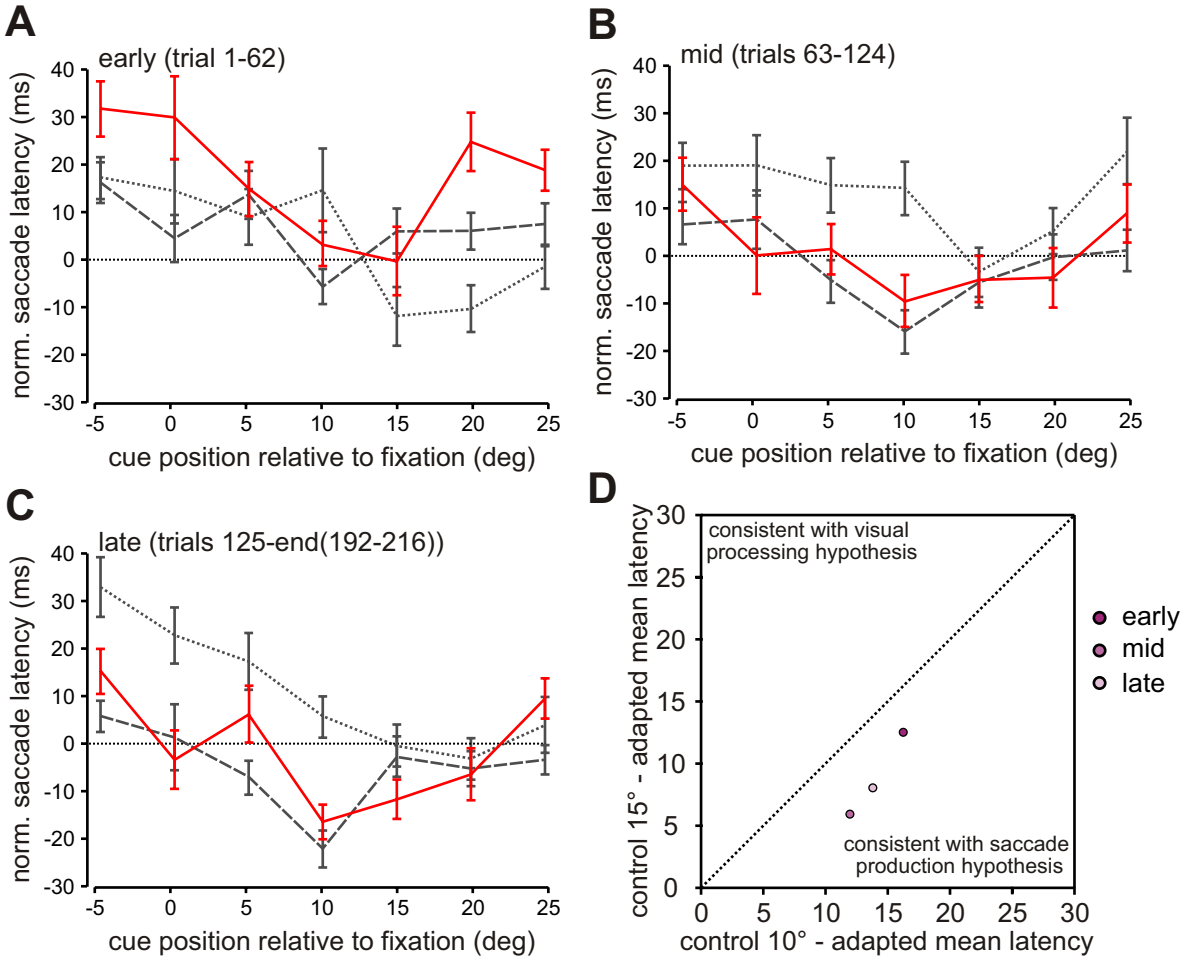


Figure 1: Single subject data A: Saccade amplitude is plotted as a function of trial number for the 10° control saccade block from subject 6. Black dots represent saccade endpoint for each trial. The pink region demarcates the range of saccade amplitudes that were included in the analysis (2°+/- target amplitude). **B:** 5 trials from **A** are shown with horizontal eye position plotted as a function of time from target onset randomly selected from two different cue conditions. The blue traces depict trials in which the cue was flashed at 10° degrees (same location as the target) and the green traces depict trials in which the cue was flashed at 5° left of fixation. **C:**Saccade amplitude as a function of trial number for the 15° to 10° adaptation block from subject 6. The pink region demarcates the range of saccade amplitudes that were included in the analysis (*adapted saccades;* ± 2° of the 2nd target position). The gray region demarcates the range of saccade amplitudes that were included in **Figure 5** (*un-adapted saccades;* ± 2° of the 1st target position). **D.** Average *adapted* saccade latencies for each flashed cue position for the 15° to 10° adapted saccade condition (red line), the 10° (dashed grey line) and 15° (dotted grey line) control saccade conditions for subject 6. Error bars are s.e.m.



Supplemental Figure 2: Trials separated into early (trials 1 to 62) - **A**, mid (trials 63-124) - **B** and late (trials 125 - end) - **C** epochs of the block of trials. This was done for all three types of trials (control and adaptation). In all three figures, the overall pattern holds, where the lowest points and curves match better between the 10º control and the adapted groups than between the 15º control and the adapted groups. A three factor ANOVA with the epoch, group and cue showed a significant effect of epoch, group and cue but no interaction effect between epoch and cue ($p>0.05$), or between epoch, group and cue ($p>0.05$), whereas there was an interaction effect between group and cue ($F(12,2617) = 3.5$, $p<0.001$) and between epoch and group ($F(4,2617)=12.38$, $p<0.05$). An interaction effect between epoch and cue would suggest that the pattern of latencies across cue locations varied depending on epoch. An interaction effect between epoch, cue and group would suggest that the pattern of latencies that the pattern of latencies across cue conditions varied depending on both group and epoch. The significant interaction between group and cue shows that across all three epochs, the pattern of latencies was different for the three groups across cue locations. Finally the significant interaction between group and epoch can be seen in the figures which show that overall latencies for each group changed over the course of the block. **D:** Difference plot for the three epochs. Data are plotted in the same manner as for Figure 5.