

number of saccades is plotted against the angular difference in degrees of the saccade vector with and without electrical stimulation of the SNr during visually-guided saccade trials. Values of 0 indicate no difference in the direction of the vector with stimulation compared to no stimulation (vertical, dashed grey line). Negative values indicate that the vector was rotated contralaterally whereas positive values indicate that the vector was rotated ipsilaterally with SNr stimulation compared to no stimulation. d. Same as in c for memory-guided saccades. The difference between the two distributions shown in a and b was statistically significant ($p < 0.001$, Wilcoxon Rank Sum). The difference between the two distributions shown in c and d was statistically significant ($p < 0.001$, Wilcoxon Rank Sum). All 61 sites from the three monkeys are included in this plot.

Figure 7. SNr stimulation at 75Hz and 125Hz also influences memory-guided saccades. The arrangement of this figure is the same as that shown in Figures 5b and c and 6a-d. 35 stimulation sites from the same three monkeys are included. 11 of these sites overlap with those shown in Figures 5 and 6. The angular and length deviations of saccade vectors occurring with SNr stimulation is shown for visually-guided in a and memory-guided saccades in b. The distributions of changes in angles are shown in e and f whereas the distribution of length changes is shown in c and d.