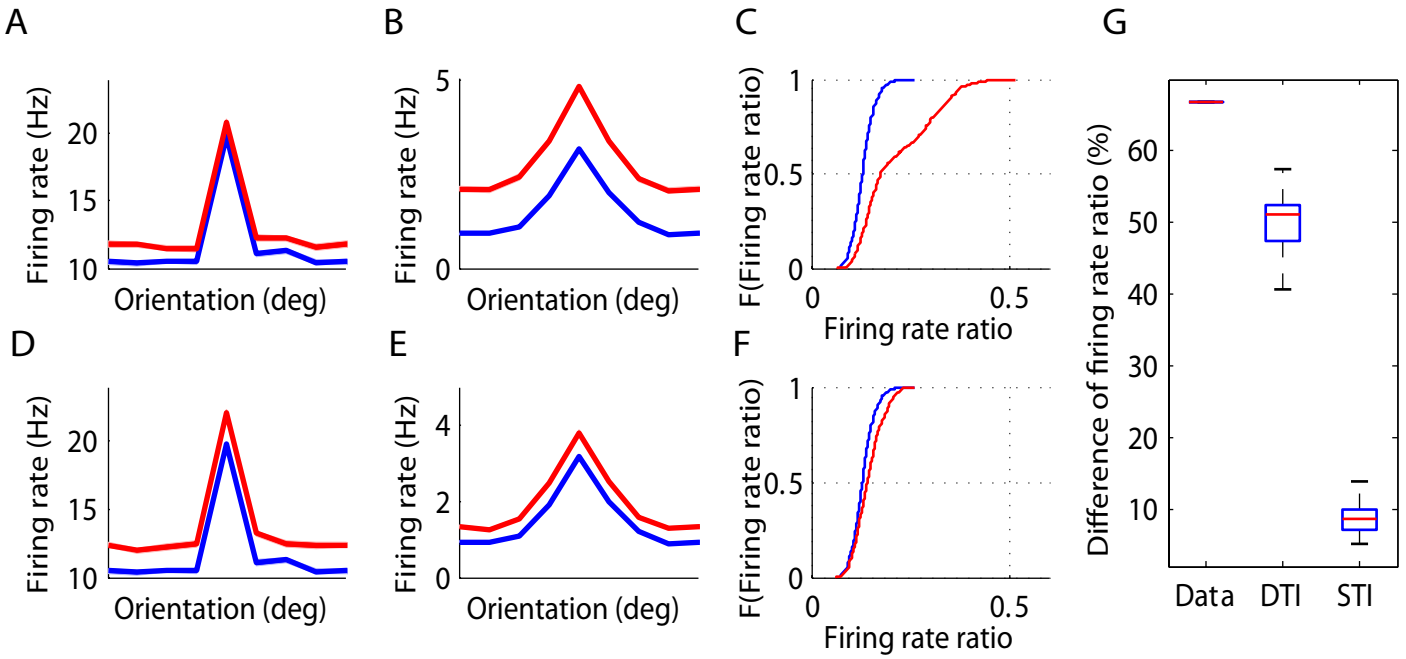

Supplemental Figure 6. Computational simulations predicted that acute silencing of DTIs had a greater effect on late response of the target cells than acute silencing of STIs. (A-C) Silencing one third of DTIs resulted in higher firing rates during both early (A) and late responses (B). The CDF for the ratio of firing rates during late response to those during early response (C) indicated a larger increase in late response. (D-F) Silencing one third of STIs also resulted in higher firing rates during both early (D) and late responses (E). The CDF for the ratio of firing rates during late response to those during early response (F) indicated similar increases during the two phases of responses. (G) The firing rate ratios (late to early) from all nine sets of simulations using different combinations of DTI and STI tuning properties were averaged, and the differences (mean ± SEM) between mutants and wild-type controls in the cases of silencing DTIs were much greater than silencing STIs. This means that regardless of the tuning properties of the DTIs and STIs, silencing DTIs increased late response to a greater extent than silencing STIs, and was closer to the experimental findings from Dlx1 mutant mice (labeled as data on the x-axis). For all panels except in panel G, blue: wild-type control; red: mutants with acute silencing of one third of DTIs or STIs.