Supplementary Figure 2. Distribution of learned eye velocities across experiments or trials when learning was instructed by MT stimulation without (a) or with (b) target stabilization. The purpose of this figure is to show the distributions of the learned eye velocities across experiments, to emphasize the consistency of the differences between learning conditions. The presentation is meant to provide a summary across experiments comparable to that in Fig. 2c, but where one condition did not exhibit a trough in learned eye velocity to measure. At each time along the x-axis, the color code indicates the eye velocities present on probe trials at that time. For each millisecond, the eye velocities have been ordered from negative at the top to positive at the bottom, so that each vertical line of colors shows the distribution of eye velocities across all experiments (a) or trials (b) at that time. (a) Distribution of learned eye velocities as a function of time on probe trials across all experiments performed without target stabilization. Around the time of microstimulation on learning trials (t=0), most of the pixels are red, yellow or green, indicating that the learned eye velocity was almost always positive, or towards the preferred direction of the neurons at the site of stimulation. Two hundred milliseconds later, however, almost all the pixels are blue, indicating that the learned eye velocity was almost always negative, or away from the preferred direction of the neurons at the site of stimulation. Thus, the two components of the learned eye velocity appear as a mountain of red around t=0 followed by an upside-down mountain of blue. (b) The same kind of plot, but for experiments performed with target stabilization during the 300 ms delivery of MT stimulation. There still is a mountain of red that peaks near t=0, but the later valley of blue has disappeared. Thus, the second component of the learned response was selectively eliminated when learning was instructed by microstimulation in MT with target stabilization. Data are from Monkey Q.