Supplemental Materials

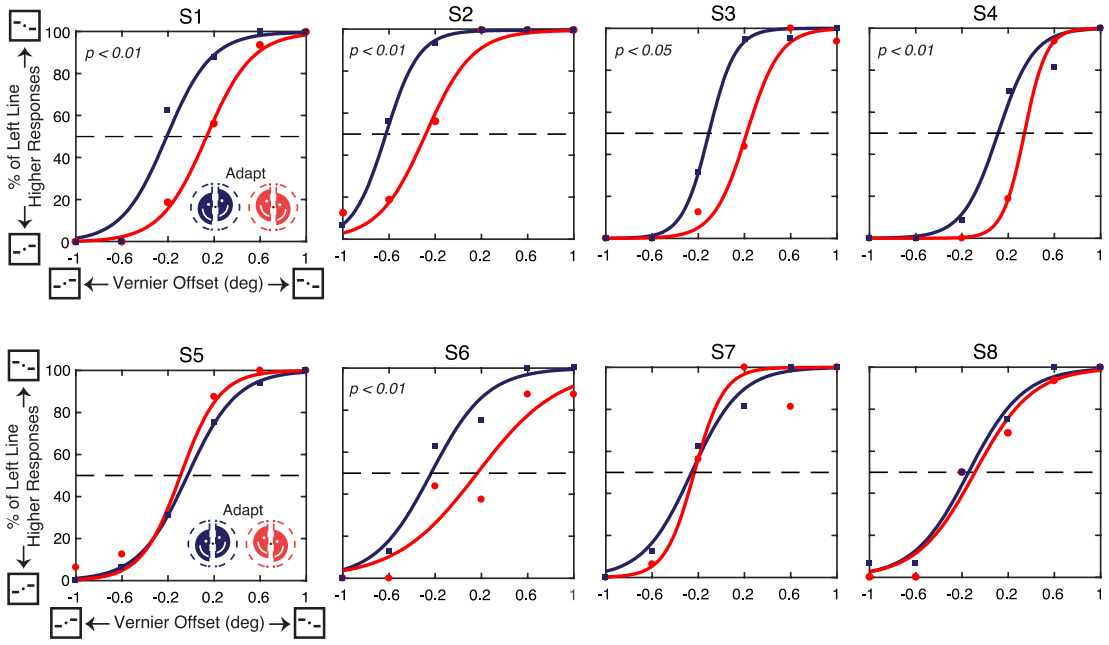

Fig. S1. *Data from each subject for Experiment 1a: adaptation to misaligned left and right hemifields. The x-axis denotes the offset between Vernier test lines in degrees of visual angle. The y-axis denotes the proportion of trials in which participants reported the left Vernier test line was higher relative to the right line. The blue curve and dots represent Vernier trials with the left half of the adapting stimulus shifted downwards and the right half upwards. The red curve and dots represent trials with the opposite adaptation direction. Points of subjective equality (PSEs) are defined as the Vernier offset at which the fitted functions cross 50% left/right reported offsets (thin dotted line). P values are based on each individual participant's permuted null distribution.*

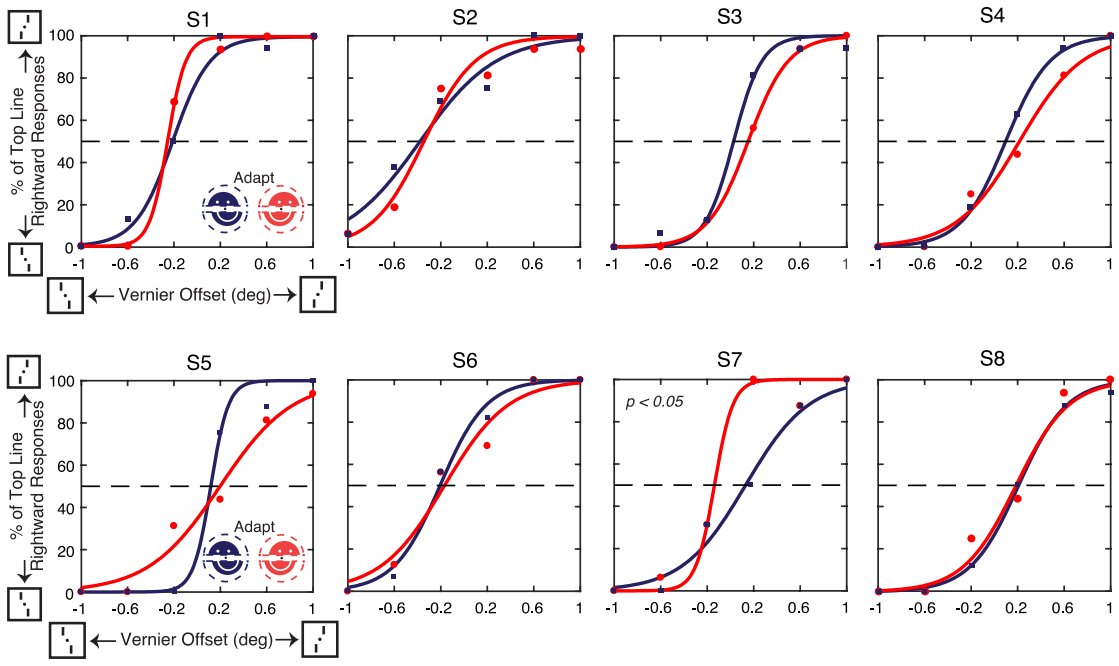

Fig. S2. *Data from each subject for Experiment 1b: adaptation to misaligned space across the horizontal meridian. The format of the graphs is the same as in Fig. S1.*

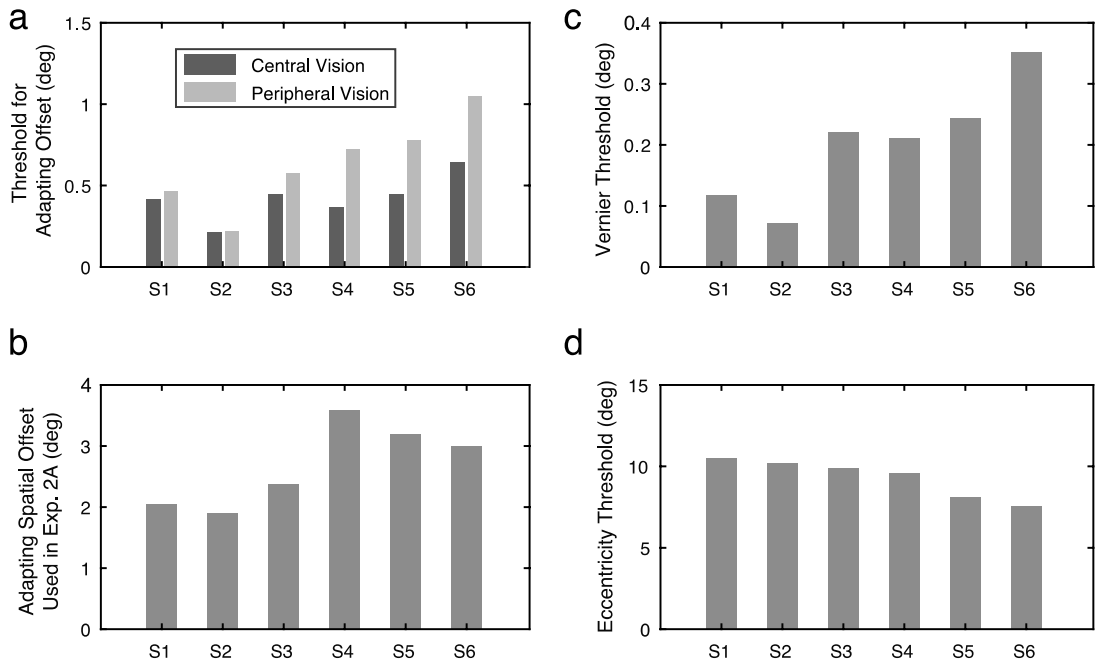

Fig. S3. *Data from preliminary experiments for equating sensitivity to spatial offsets in both adapting stimuli and Vernier lines in Experiments 2a and 2b. (a) Thresholds of adapting spatial offsets presented in central and peripheral vision. (b) Spatial offsets for adapting stimuli in peripheral vision (used in Exp. 2a) were estimated from thresholds in panel A in order to be psychophysically equivalent to a central 1.83 spatial offset. Values were calculated by multiplying the ratio of peripheral to central thresholds (shown in panel A) by 1.83. (c) Vernier offset thresholds for peripheral Vernier lines displayed in the left and right visual fields. The threshold spatial offsets shown in (c) were then shown in the upper and lower visual fields at different eccentricities. (d) The resulting eccentricity thresholds (at the threshold Vernier misalignment) determined the spatial locations of the Vernier test lines used in Exp. 2b.*

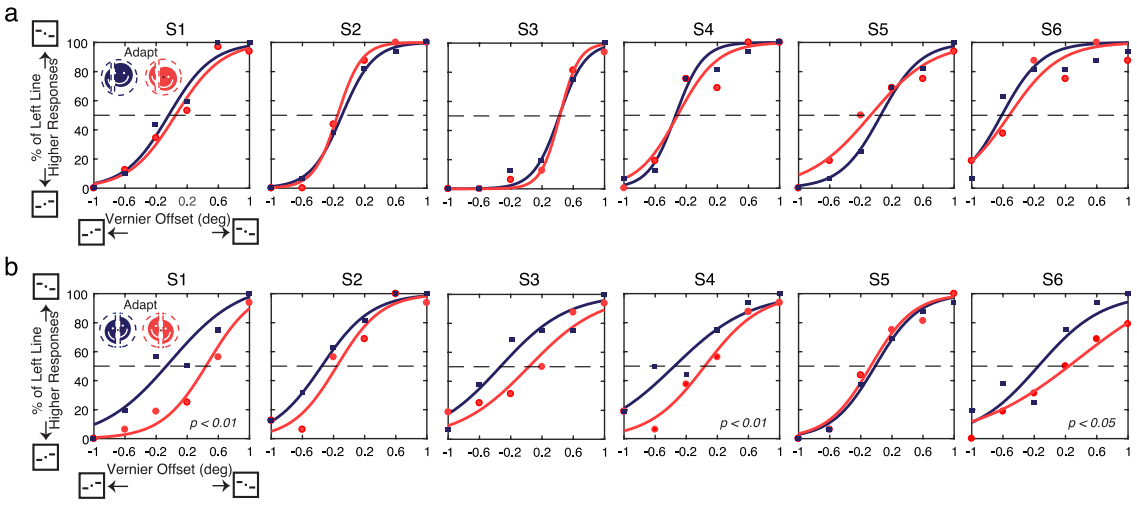

Fig. S4. *(a) Data from each subject for Experiment 2a: aftereffects of misaligned space within the same hemifield. (b) Data from each subject for Experiment 2b: aftereffects of misaligned space between the two hemifields.*

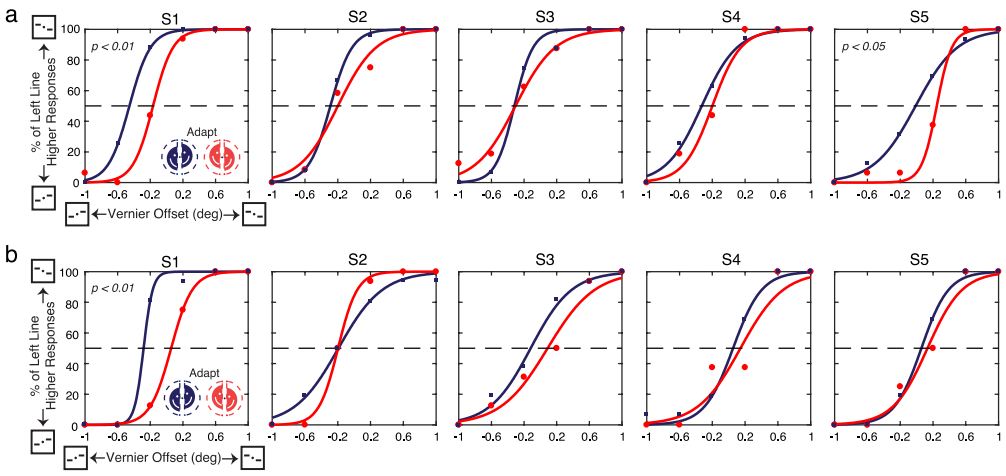

Fig. S5. *(a) Data from each subject for Experiment 2a: misaligned movie scenes. (b) Data from each subject for Experiment 2b: misaligned Glass patterns.*