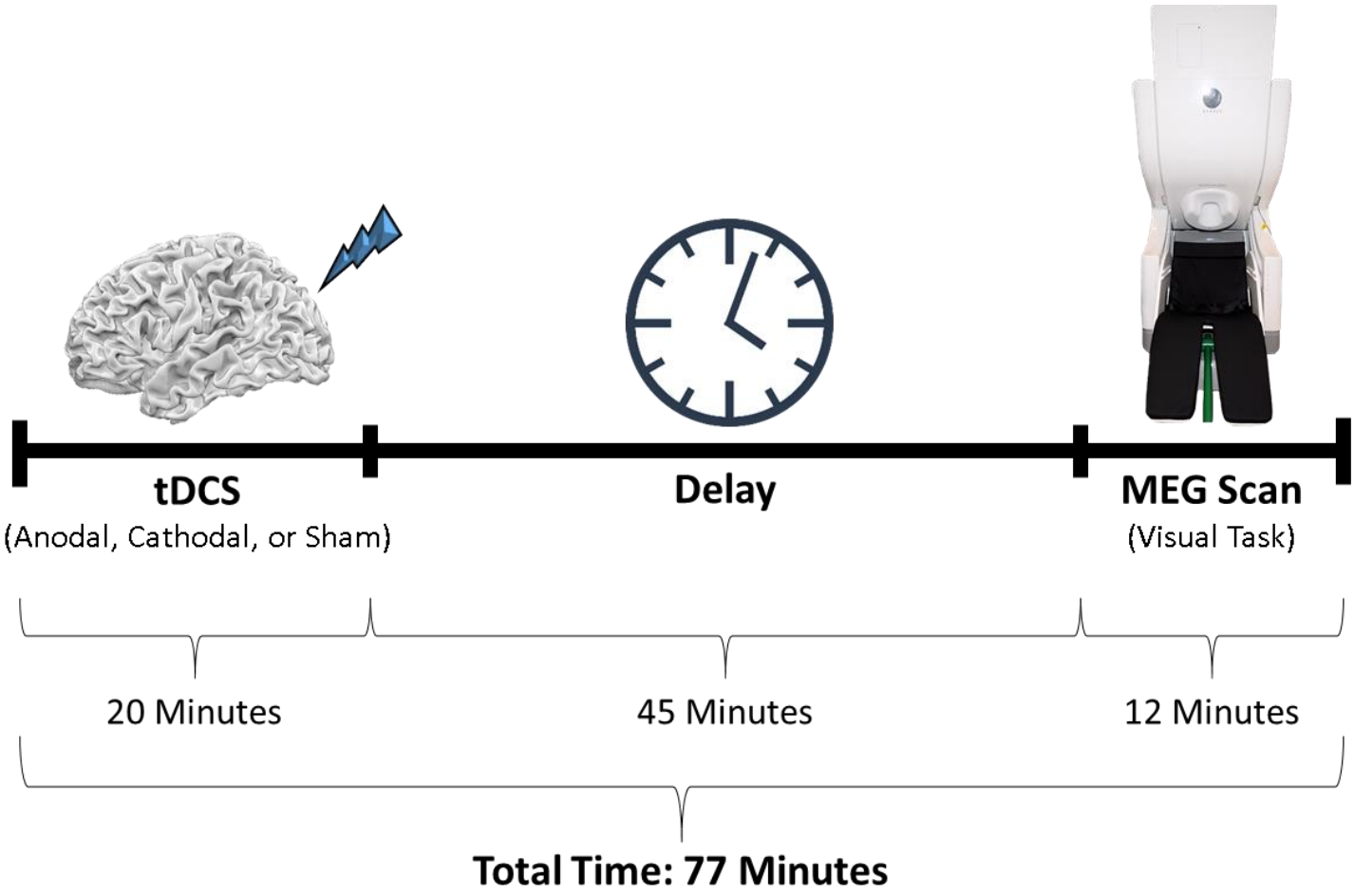

Figure S1. Schematic of the experimental protocol. Participants in each active stimulation group underwent 20 minutes of 2.0 mA direct-current stimulation to the occipital cortices, plus ~30 s ramp-up and ramp-down periods, while passively viewing an animated movie. Participants in the sham group received the same passive visual experience for 20 minutes, but no stimulation outside of the ~30 s ramp periods. Following stimulation, participants were disconnected from the tDCS apparatus, prepared for MEG recording, and seated with their head positioned within the MEG helmet. The total delay between the cessation of stimulation and the beginning of the MEG scan was 45 minutes. While undergoing MEG recording, participants completed a 12 minute visuospatial discrimination task, including a total of 240 trials. The total experiment time was roughly 77 minutes for each participant.

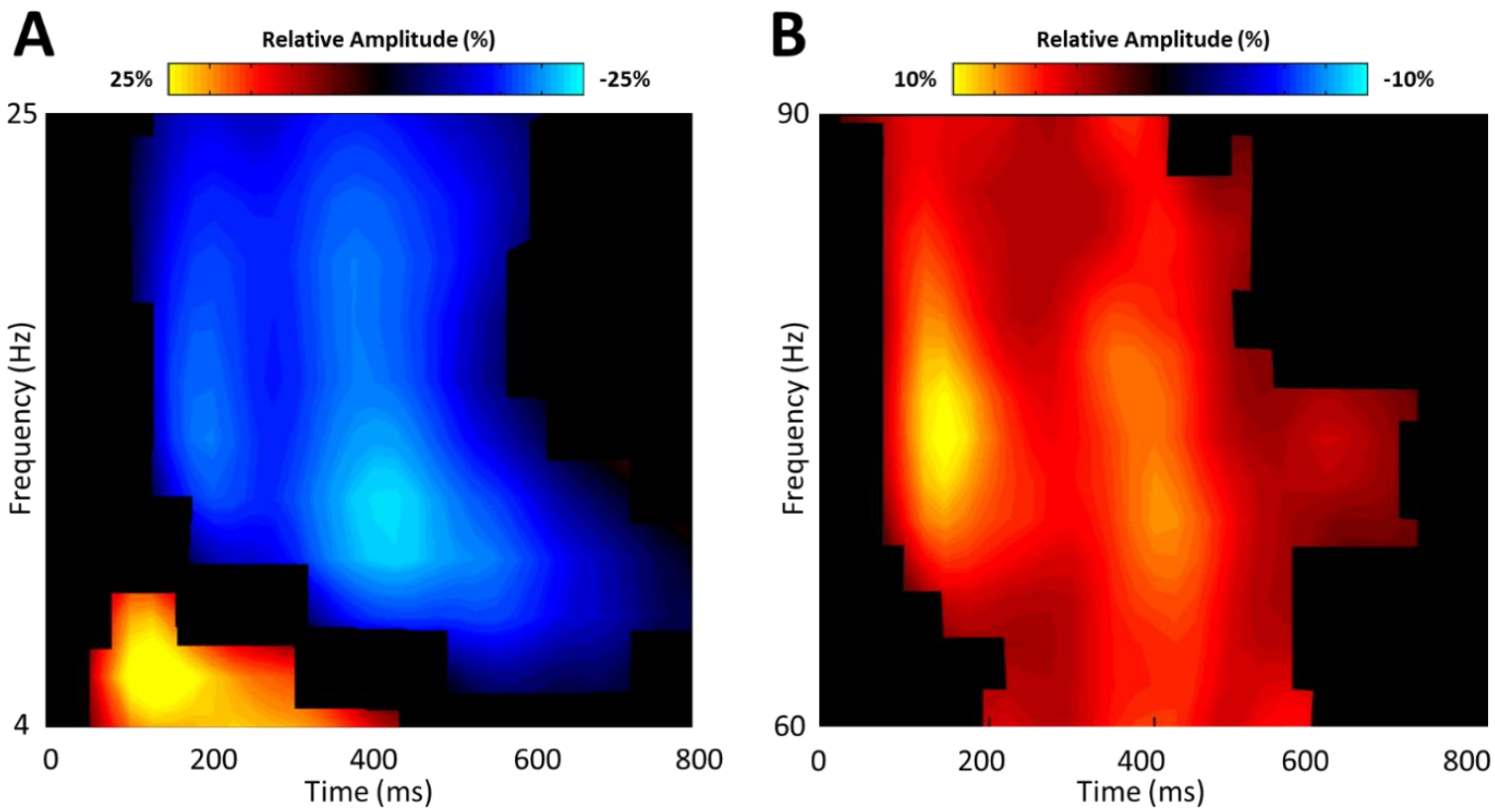

Figure S2. Graphical representation of the significant time-frequency windows at the sensor-level. The same representative sensors from Figure 2B, with time (in milliseconds) denoted on the x-axes, and frequency (in Hz) denoted on the y-axes. Relative amplitude in percent change from baseline is shown in percentage units following the color bar scale above each respective plot. The sections of the heat maps that are visible represent the time-frequency clusters that were found to be significant after stringent cluster-based permutation testing. These significant time-frequency windows were used to guide subsequent source imaging analyses

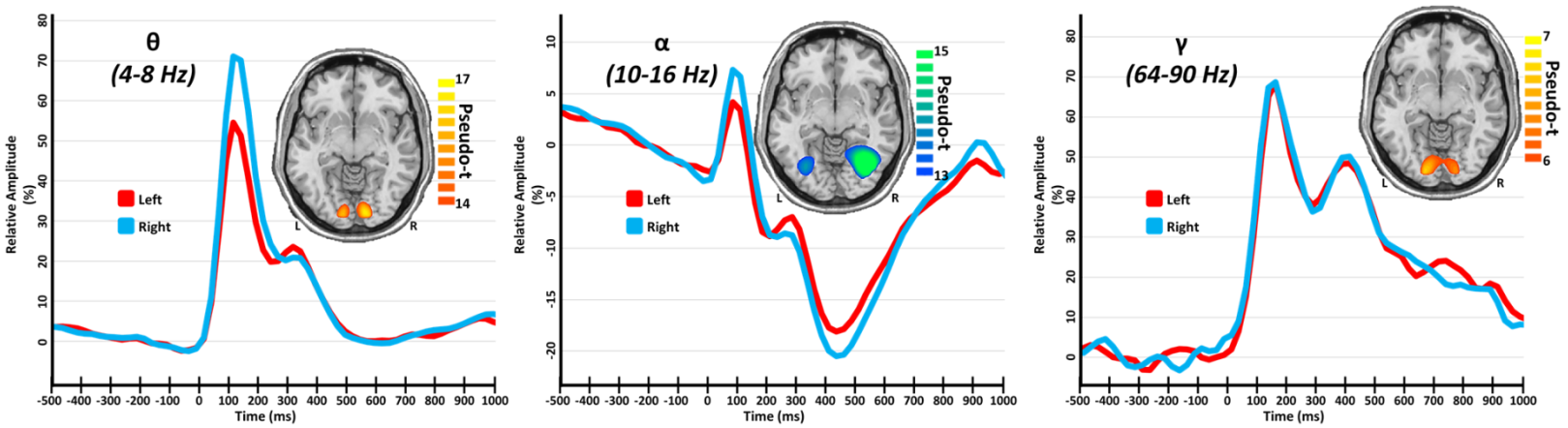

Figure S3. Frequency-specific neural responses in visual cortex. Axial slices (inlays) are group mean beamformer images of the bilateral visual responses at each frequency. The color legend for each respective image is shown to the right. Peak voxel time series for each set of visual responses were extracted and are displayed below their respective spatial map, with time (in milliseconds) denoted on the x-axes, and relative amplitude (in percent change from baseline) denoted on the y-axes. In this analysis, peak voxel time series from all stimulation conditions were averaged together, within each frequency-specific response, to examine whether the prototypical visual oscillatory responses were present across participants.

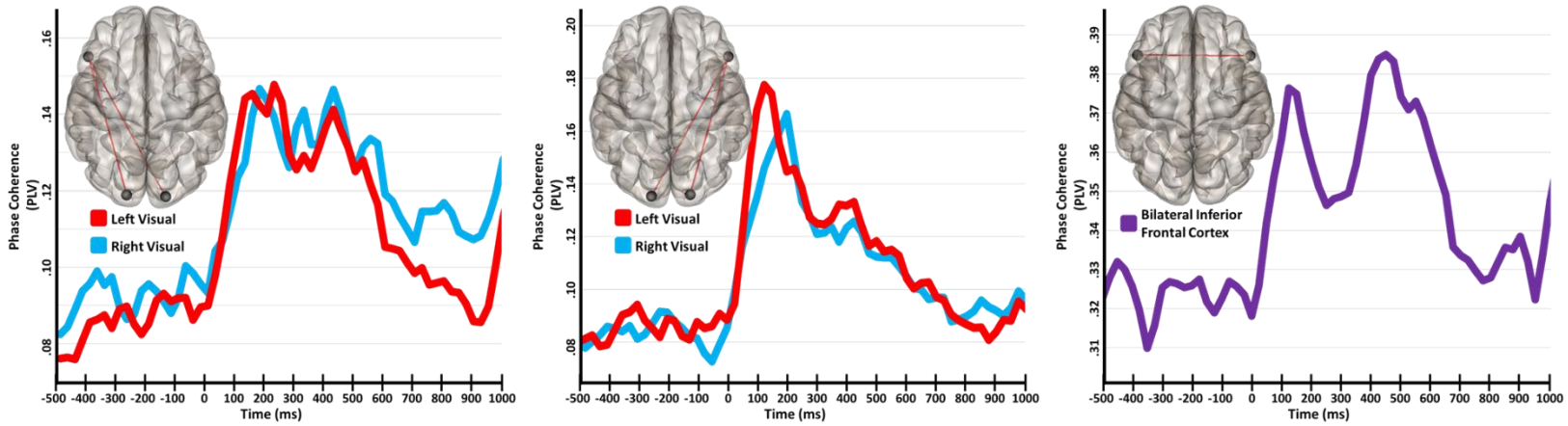

Figure S4. Prefrontal-visual functional connections in the theta (4-8 Hz) band. Time series represent dynamic functional connectivity between the seeds shown in the inlayed glass brains, with time (in milliseconds) denoted on the x-axes, and phase locking value (PLV) represented on the y-axes. In this analysis, PLV time series from all stimulation conditions were averaged together to examine whether prototypical fronto-visual functional connections were present across all participants.

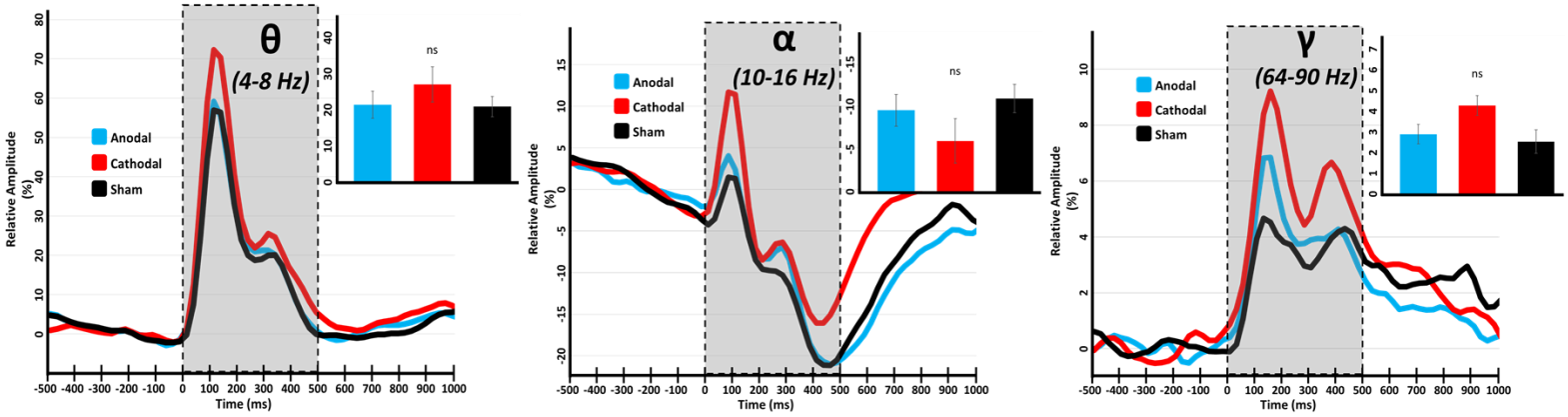

Figure S5. The polarity of tDCS did not differentially affect oscillatory (i.e., baseline-relative) amplitudes. Peak voxel time series for each set of visual responses were extracted from the same coordinates as in Figures 3 and S3, and are displayed with time (in milliseconds) denoted on the x-axes, and relative amplitude (in percent change from baseline) denoted on the y-axes. Shaded regions (from 0 to 500 ms) represent the "task-active" period, over which average values were obtained for each participant. Inlaid bar graphs represent these relative values averaged across the task-active period in all participants per stimulation condition. ^{ns} $p > .10$