



Figure S3. Comparison of electrode localization and local activations in dPul and vPul. **(A)** Electrode positions in T2-weighted MR images and reconstructed in T1-weighted images, aligned to the chamber vertical axis, in example dPul and vPul stimulation sessions. Outlines mark the respective target region. **(B)** Coronal sections showing microstimulation activation maps at the stimulation sites during high (250 μ A) and low (100 μ A) current stimulation of dPul (purple-yellow and blue/cyan, respectively) and vPul (red/yellow). Schematic outlines were adapted from the NeuroMaps atlas downloaded from BrainInfo (<http://braininfo.rprc.washington.edu/PrimateBrainMaps/atlas/Mapcorindex.html>). **(C)** The same chamber-normal coronal sections as in (A), with activation maps and overlaid probability map of electrode tip positions (outlined in black, see green arrows) across all 100 μ A sessions. **(D)** Three example atlas sections (relative to the AC origin) depicting the medial, lateral and inferior pulvinar nuclei, as well as the brachium of the superior colliculus (bsc). **(E)** Probability maps of electrode tip positions across sessions in dPul (blue) and vPul (red) displayed on a T1-weighted MR image aligned to standard AC-PC space. R - right, y - distance from AC-PC origin along the anterior/posterior plane in mm.