Supplementary Note

To validate the technique\textsuperscript{1-3} for extracting orientation magnitude in \textbf{Fig. 1}, we performed three control analyses: (i) We constructed an image patch comprised of random noise, in which case each orientation was equally represented in the scene. (ii) A circular patch subtending the rectangular image was drawn (circle diameter was equal to the minimum of rectangle height and width), and the orientation distribution was calculated for the original patch and for the same patch tilted at 45°. In this case, the orientation distribution of the tilted patch was shifted by 45°. (iii) We compared orientation histograms using a 3 × 3 and a 5 × 5 pixels kernel size, but the results were not influenced by the scale of the analysis. We extracted 1.5° square patches at the center of gaze and calculated the preferred orientation and orientation selectivity index as previously described\textsuperscript{4}.

References


