showing significantly stronger activation \((P < 10^{-4}, \text{ corrected})\) to moving than static low-contrast concentric rings. The borders of early retinotopic regions (V1, V2, V3, V3a, Vp, V4) were localized using rotating wedge stimuli, and eccentricity mapping was achieved using concentric rings.

**Supplementary Figure 5** Fits to the time course of the fMRI responses in the examined ROIs. (a) fMRI response from the Identical (circles) and All Change (squares) conditions (Exp 1) are shown to be illustrative of the time courses. Subjects = 11. Solid lines are fits to the data using two Gaussians (one for the initial response and one for the undershoot) and a baseline:

\[
h(t) = \frac{\gamma_1}{\delta_1} \exp\left(\frac{-(t-\lambda_1)^2}{2\delta_1^2}\right) + \frac{\gamma_2}{\delta_2} \exp\left(\frac{-(t-\lambda_2)^2}{2\delta_2^2}\right) + k
\]

from Kruggel and von Cramon (1999, Magnetic Resonance in Medicine 42, 674-77) where the hemodynamic response function \((h)\) over time \((t)\) is modelled as the sum of two Gaussians, each of which depends on gain \((\gamma)\), dispersion \((\delta)\) and a temporal lag \((\lambda)\), and a baseline parameter \((k)\). Fits for the conditions representing the maximum (All Change) and minimum (Identical) stimulus changes are shown to illustrate the range of the effects. Time-to-peak parameter from fits of time course data for Experiment 1 (b) and Experiment 2 (c). Time-to-peak parameter \((\lambda_i)\) from the fits to all the experimental conditions in all the visual areas tested are shown.

**Supplementary Figure 6** Mean peak fMRI response across the visual areas when individual reference stimuli are presented alone. For this single-presentation event-related experiment observers \((n = 8)\) were presented with the reference stimuli \((S_p = S_d = \{106,116,126,136\}^\circ)\) by themselves. Each stimulus was presented alone for 400ms followed by a blank of 2600ms. Observers were asked to identify the stimulus in a four-alternative forced-choice task. No differences in the fMRI responses evoked by the reference stimuli themselves were evident in any area (V1: \(F_{3,21} = 1.60, P = 0.23\); V2: \(F_{3,21} < 1, P = 0.83\); V3: \(F_{3,21} < 1, P = 0.19\); V3a: \(F_{3,21} = 1.93, P = 0.18\); Vp: \(F_{3,21} < 1, P = 0.71\); V4: \(F_{3,21} < 1, P = 0.39\); LOC: \(F_{3,21} = 2.09, P = 0.14\); hMT+/V5: \(F_{3,21} < 1, P = 0.51\)), suggesting that experimental results were not due to the fMRI response evoked by the individual reference stimuli. Error bars ± SEM.