◆ **The healthy visual field of recognition**

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The fovea and perifovea are the locus of highest contrast sensitivity for pattern recognition (Strasburger and Rentschler, 1996 *European Journal of Neuroscience* **8** 1787–1791). Outside this small centre, recognition contrast sensitivity declines, and at medium to high eccentricities at a

rate steeper than would be expected from the mere detectability of stimuli. Low-contrast stimuli are therefore detected but not recognised peripherally.

We have now directly and in a finely-spaced raster compared contrast sensitivity for recognition to that for detection in the full central 20-deg radius field for a group of young healthy observers ($n = 20$). Detection stimuli were Gabor patterns (1 cycle deg^{-1}, $\sigma = 1.5^{\circ}$); recognition stimuli were the digits 0–9 (size 2.4 deg), the contrast thresholds of which were determined at 65 positions in a polar raster. Overall, we acquired close to 100 000 observer responses. Contrast thresholds were obtained by a maximum-likelihood adaptive procedure (R_Contrast, ML-PEST). All subjects showed stable, inter-individually somewhat different sensitivity surfaces. Contrast thresholds for detection and recognition increased linearly with eccentricity (up to 10 deg eccentricity by 0.03 log unit deg^{-1}. Recognition contrast thresholds were systematically higher than those for detection. We thus show normative data for character-recognition contrast sensitivity in the visual field, for young normal observers.