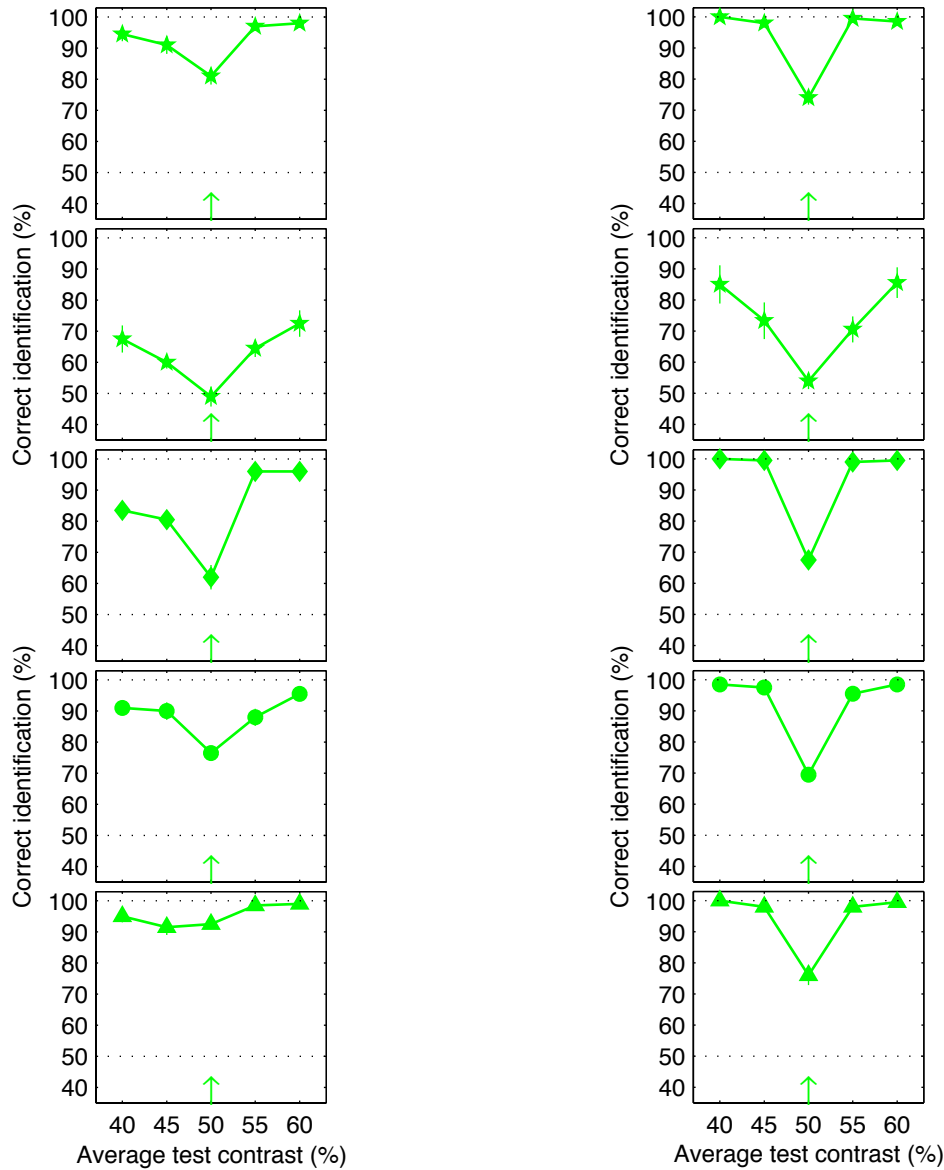


Test contrast difference: 10%
 Observer: ☆ SYP ☆ CY ◇ GSW ○ LY △ BSG
 Grid size: 15x15
 ↑ Adapt contrast (%): 50
Contrast after test pattern: 0%

Test contrast difference: 10%
 Observer: ☆ SYP ☆ CY ◇ GSW ○ LY △ BSG
 Grid size: 15x15
 ↑ Adapt contrast (%): 50
Contrast after test pattern: 50%



(a)

(b)

Figure Supplementary-1. Results collected with 0% contrast (gray) immediately following the test pattern (panel A) and results collected with 50% contrast Gabor patches immediately following the test pattern (panel B). In both conditions the adapt contrast was 50%. Error bars show ± 1 SE of the means across sessions. Observers show a clear straddle effect in all cases except for BSG (Panel A), where a straddle effect may be hidden by the strong ceiling effect.

Test contrast difference: 10% 20%
 Observer: \triangle CG
 Grid size: 2x2
 \uparrow Adapt contrast (%): 50

Test contrast difference: 10% 20%
 Observer: \square RK
 Grid size: 2x2
 \uparrow Adapt contrast (%): 50

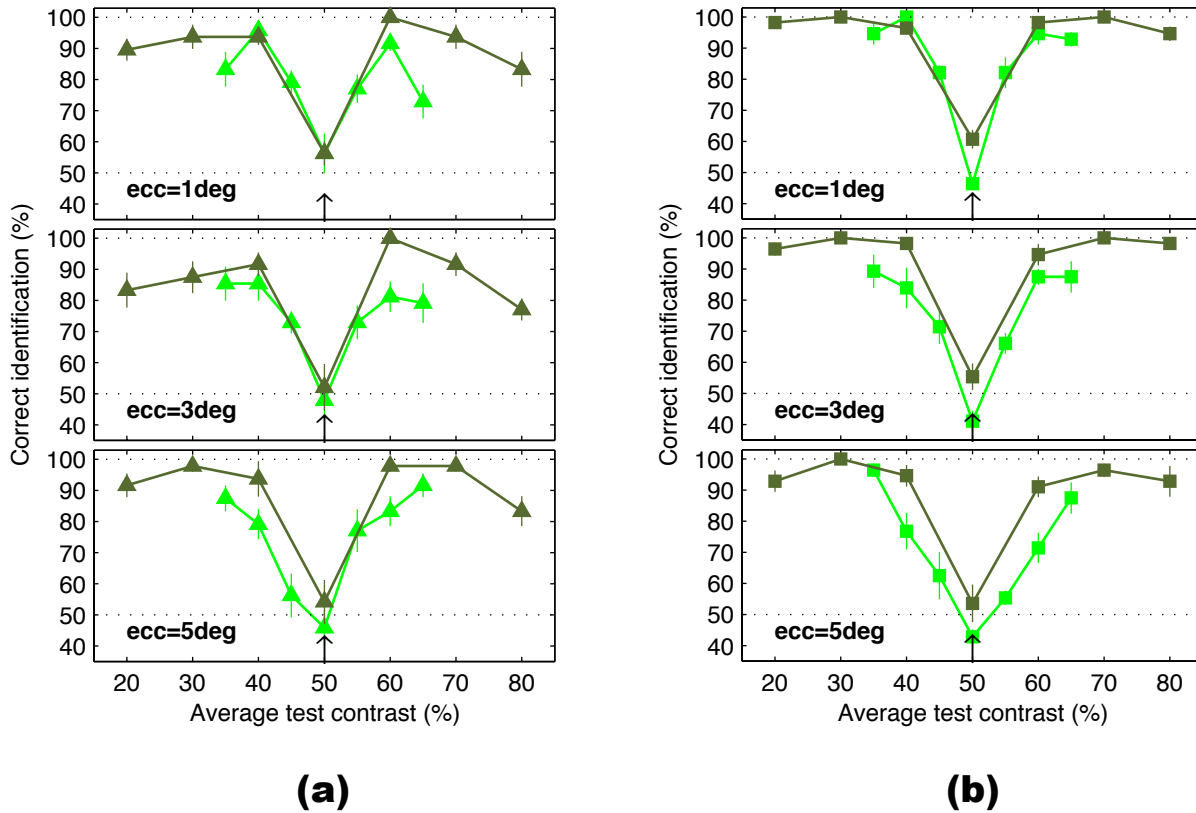


Figure Supplementary-2. Results collected in the near-periphery for two observers show the straddle effect. Adapt and test patterns were 2x2 grids of Gabor patches to the left and right of fixation. The inner edge of the grid was 1, 3, or 5 degrees eccentric (top row, middle row, bottom row). A fixation square was presented throughout the trial and a simple letter identification task (“x” or “o”) occurred in the fixation square at the same time the test patterns were shown in the near-periphery. Observers gave both responses on each trial and were provided with feedback on both responses. Plotted here is percent correct identification of the orientation (of the contrast-defined stripes) in the test patterns on trials in which the observer also correctly identified the letter at fixation. Error bars show ± 1 SE of the means across sessions. Plots that include all trials look very much the same. Letter identification rates for CG (panel A) at 1, 3, and 5 degrees eccentric were 83%, 87%, and 90%; for RK (panel B) they were 86%, 86%, and 91%.

Test contrast difference: 10%
Observer: >NA
Grid size: 2x2
↑ Adapt contrast (%): 0 25 50 75 100

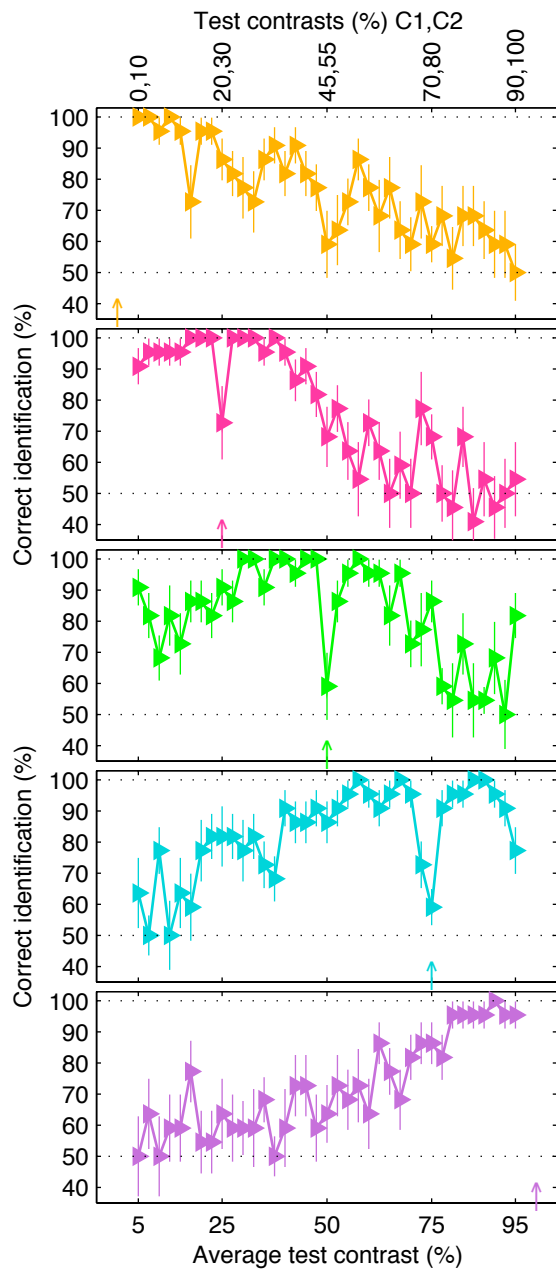


Figure Supplementary-3. Results from observer NA in Experiment 3. Error bars show +1 SE of the means across sessions. (Subset of the results plotted in Figure 12.)

Test contrast difference: 10%
Observer: □ RK
Grid size: 2x2
↑ Adapt contrast (%): 0 25 50 75 100

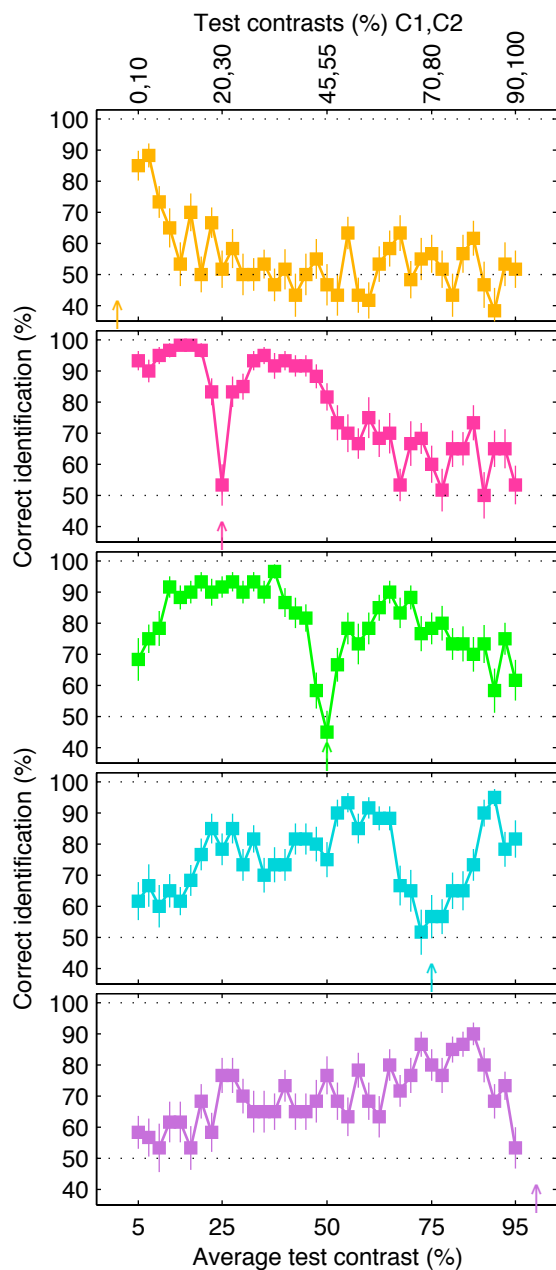


Figure Supplementary-4. Results from observer RK in Experiment 3. Error bars show +1 SE of the means across sessions. (Subset of the results plotted in Figure 12. This figure is the same as Figure 4 of the main text but also provided here for completeness.)

Test contrast difference: 10%
Observer: ☆ SYP
Grid size: 2x2
↑ Adapt contrast (%): 0 25 50 75 100

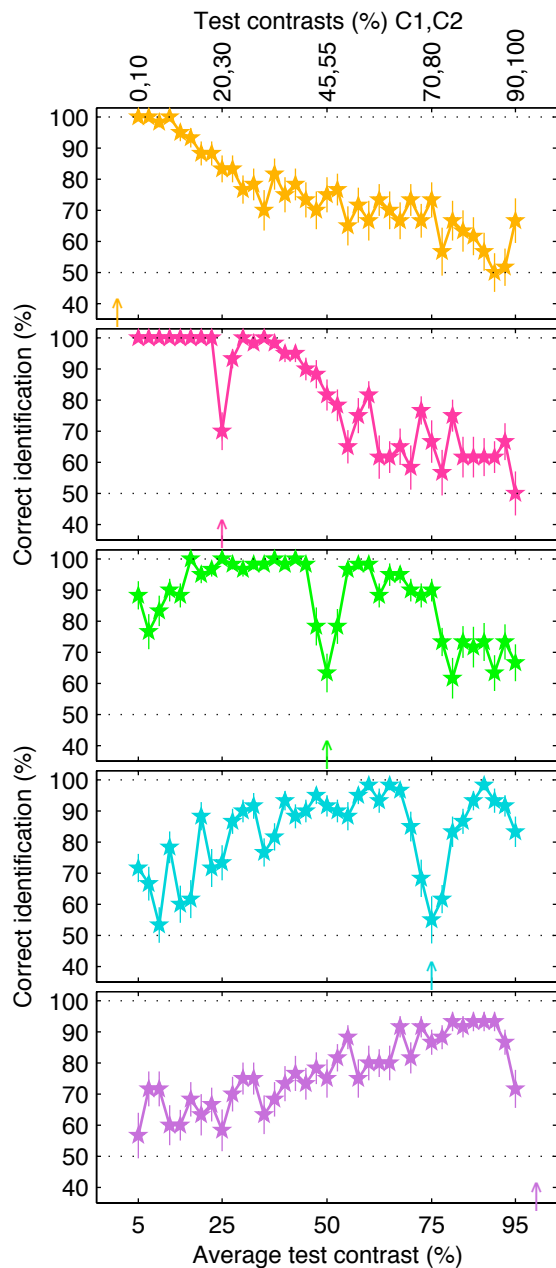


Figure Supplementary-5. Results from observer SYP in Experiment 3. Error bars show ± 1 SE of the means across sessions. (Subset of the results plotted in Figure 12.)

Test contrast difference: 10%
Observer: \diamond MM
Grid size: 2x2
 \uparrow Adapt contrast (%): 0 10 50

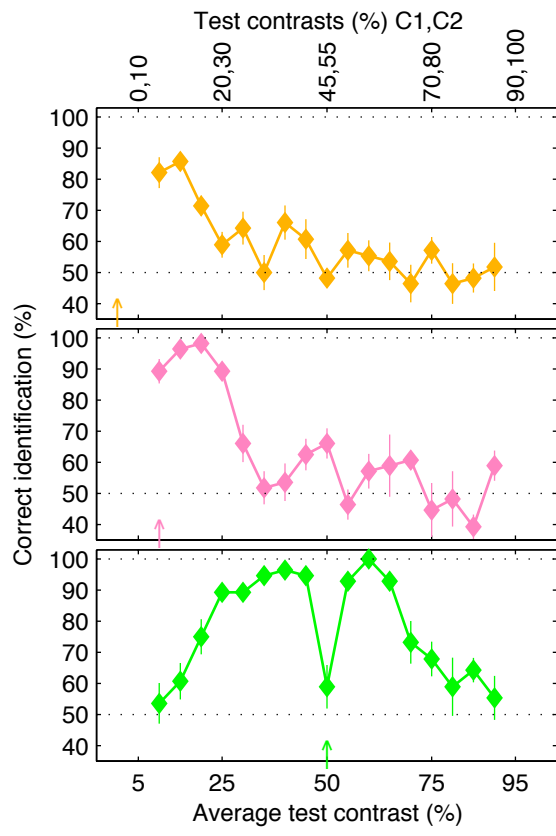


Figure Supplementary-6. Results from observer MM in Experiment 4. Error bars show +1 SE of the means across sessions. (Subset of the results plotted in Figure 12.)

Test contrast difference: 10%
Observer: × RK
Grid size: 2x2
↑ Adapt contrast (%): 0 10 50

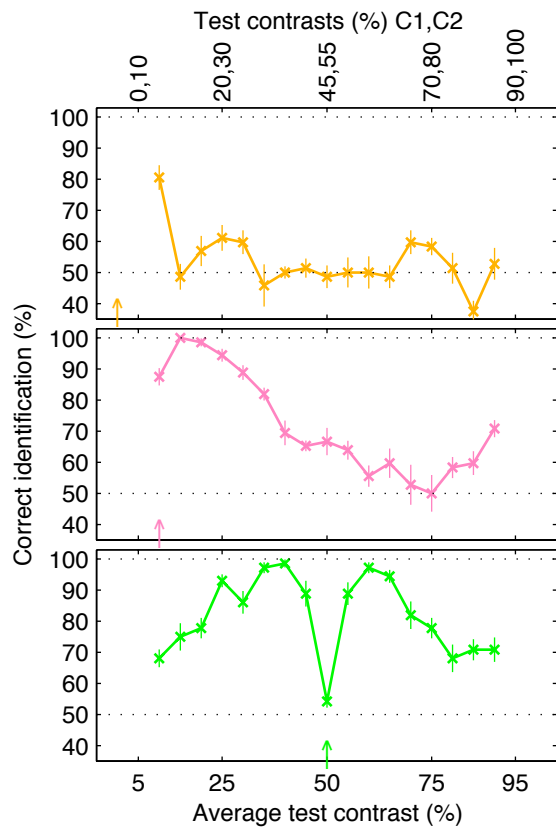


Figure Supplementary-7. Results from observer RK in Experiment 4. Error bars show ± 1 SE of the means across sessions. (Subset of the results plotted in Figure 12.)

Test contrast difference: 10%
Observer: ▽VR
Grid size: 2x2
↑ Adapt contrast (%): 0 10 50

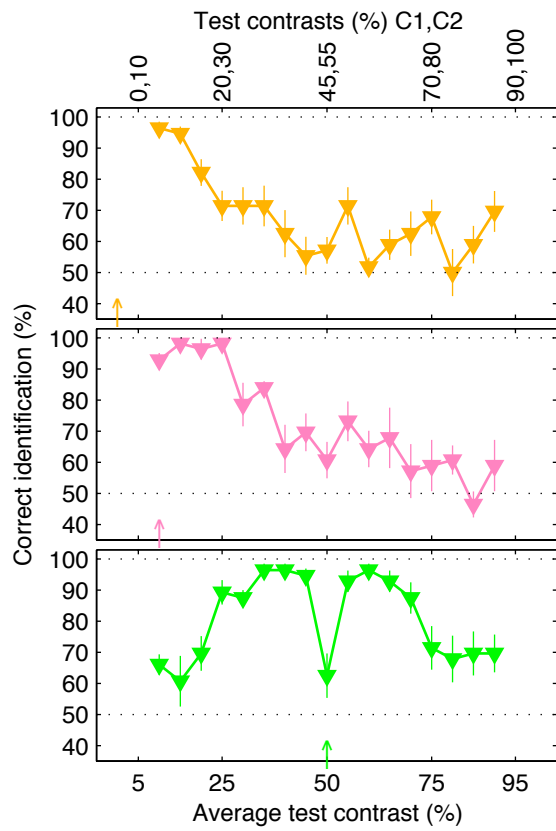


Figure Supplementary-8. Results from observer VR in Experiment 4. Error bars show ± 1 SE of the means across sessions. (Subset of the results plotted in Figure 12.)