SUPPLEMENTAL FIGURE CAPTIONS

Supplemental Figure 1. The histograms of behavioral curvature responses (filled bars) and the corresponding model fits (dotted lines) from eight-stimulus trials in Experiment 1 (see the Methods section for details). The fits were performed separately for each observer but subsequently averaged to illustrate the overall results. Note that these average histograms are intended only to illustrate the quality of the model fits, and they do not accurately represent the estimates of curvature signal and noise (see the Supplemental Results main text for details). (A-C) The model fits for curvature-absent trials for the three stimulus conditions, (A) no-context, (B) inverted-scrambled-face, and (C) face-context. The curved segments shown under the x-axes represent the choices on the curvature-matching screen and the numbers below represent the values of curvature magnitude used for analyses. (D-F) The model fits for curvature-present trials for the three stimulus conditions, (D) no-context, (E) inverted-scrambled-face, and (F) face-context. The histograms are collapsed across trials containing an upward-curved segment and those containing a downward-curved segment. The curved segments shown under the x-axes represent the choices on the curvature-matching screen collapsed across direction and the numbers below represent the absolute values of curvature magnitude. On the x-axes, curvature responses in the direction opposite to the presented curvature are shown on the left and labeled "Incorrect," and curvature responses in the direction of the presented curvature are shown on the right and labeled "Correct." In all parts, the error bars represent ± 1 *SEM*.

Supplemental Figure 2. The histograms of behavioral curvature responses (filled bars) and the corresponding model fits (dotted lines) from eight-stimulus trials in Experiment 2. The format and labels are the same as in Supplemental Figure 1. (A-C) The model fits for curvature-absent trials for the three stimulus conditions, (A) no-context, (B) inverted-scrambled-face, and (C) face-context. (D-F) The model fits for curvature-present trials for the three stimulus conditions, (D) no-context, (E) inverted-scrambled-face, and (F) face-context. The x-axis conventions are the same as in Supplemental Figure 1. In all parts, the error bars represent ± 1 *SEM*.

Supplemental Figure 3. The histograms of behavioral curvature responses (filled bars) and the corresponding model fits (dotted lines) from single-stimulus trials in Experiment 2. The format and labels are the same as in Supplemental Figures 1 and 2. (A-C) The model fits for curvature-absent trials for the three stimulus conditions, (A) no-context, (B) inverted-scrambled-face, and (C) face-context. (D-F) The model fits for curvature-present trials for the three stimulus conditions, (D) no-context, (E) inverted-scrambled-face, and (F) face-context. The x-axis conventions are the same as in Supplemental Figures 1 and 2. In all parts, the error bars represent ± 1 *SEM*.