



Supplementary Figure 3. In two recent publications, homogenous sets of faces and houses (both $n=10$) were used to track categorical sensitivity to faces [1, 2]. The data presented here are from reference 2 (where more trials were available) but similar results were obtained in both experiments. Using a method identical to the one used by Thierry et al. revealed a higher ISPV for faces compared to houses. This is illustrated by an inter-stimulus correlation histogram shifted to the left for faces and a blurrier average face image. Despite this significant difference of ISPV in favor of houses, faces were associated with a larger N170 (represented here at left and right hemisphere electrodes E95 and E171, from a cluster of electrodes showing the maximum N170, geodesic 256 electrode array). The evoked response was also quantified using global field power, i.e. the standard deviation of voltage computed across electrodes, a global and reference free measure of brain activity. This index also revealed significant differences occurring in the N170 time window. The blue lines show the difference between faces and houses and its confidence interval estimated using a bootstrap with 1000 re-samples, $\alpha = 0.01$. The difference is significant when the confidence interval does not include zero.

[1] Rousselet, G. A., Husk, J. S., Bennett, P. J., & Sekuler, A. B. (2005). Spatial scaling factors explain eccentricity effects on face ERPs.

Journal of Vision, 5(10):1, 755-763,

[2] Rousselet, G.A., et al., Single-trial EEG dynamics of object and face visual processing, *NeuroImage* (2007),.