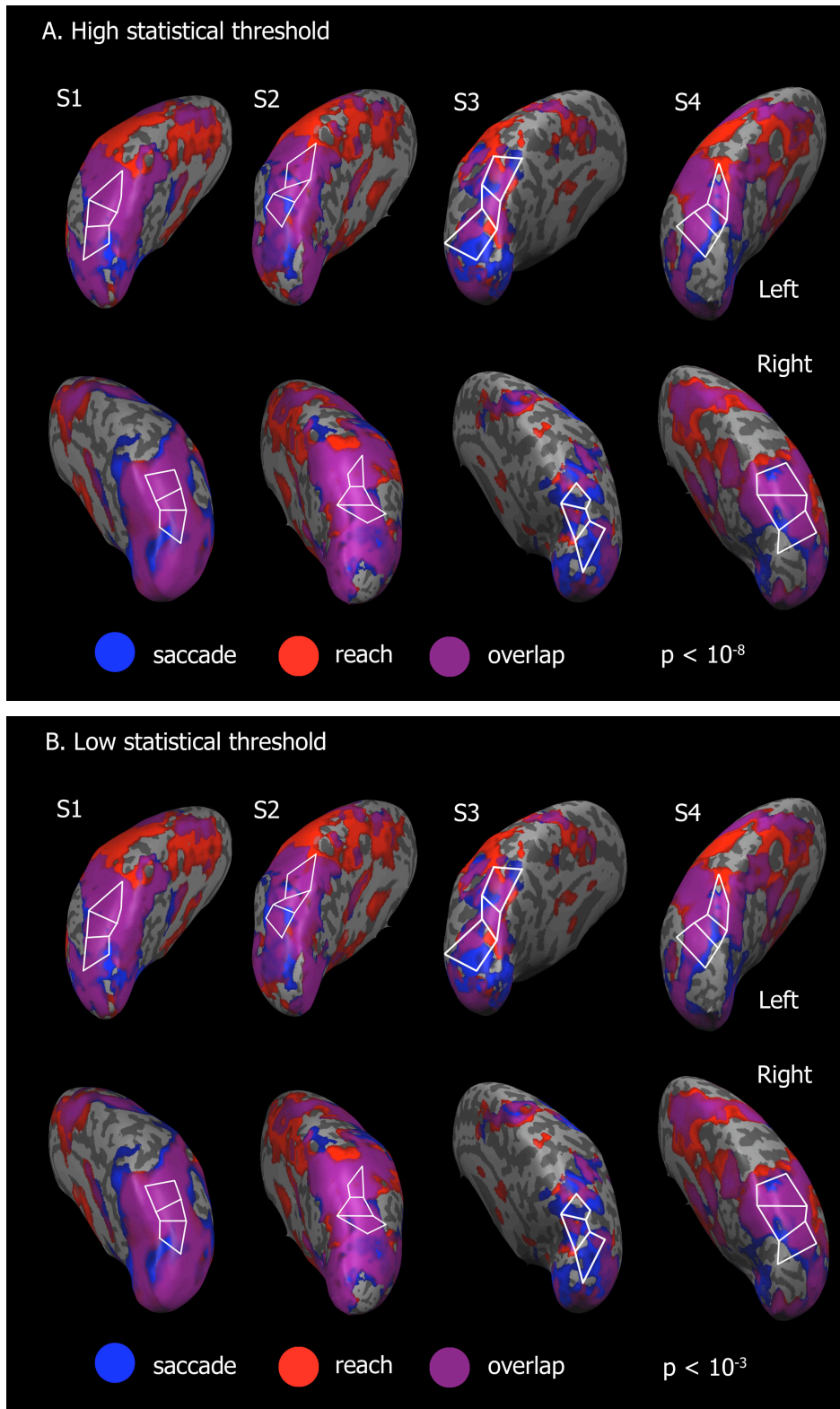**Supplementary Figure 1**
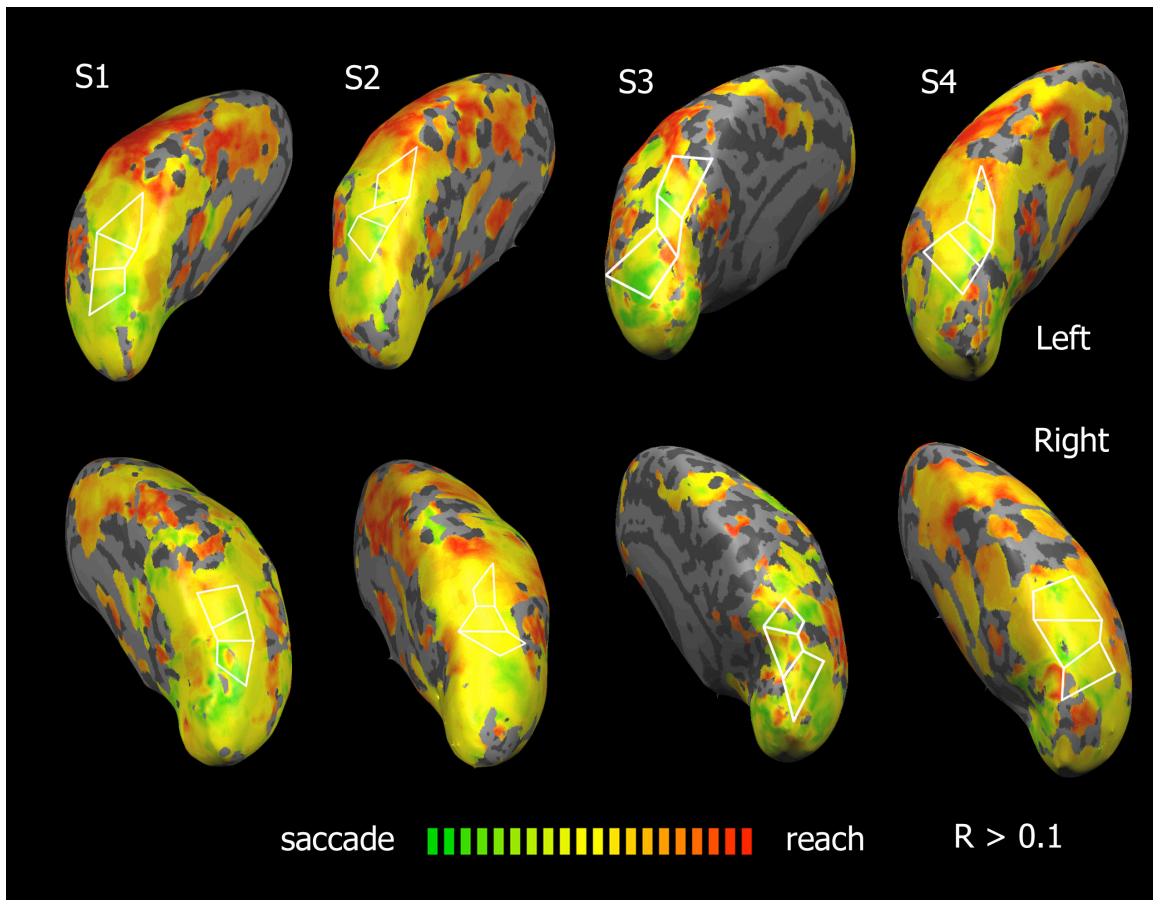**Saccades and reaches in PPC – group activation map**
Random effects analysis in 8 subjects using high (top) and low (bottom) statistical threshold. On the whole, saccades preferentially activated more posterior and lateral regions, whereas reaches preferentially activated more anterior and medial regions. However, due to the inter-subject variability observed in PPC the average map loses the detail evident in the single-subject maps. Yellow line denotes the IPS. White dots mark centers of areas V7, IPS1 and IPS2 averaged across subjects.

Supplementary Figure 2
Saccades and reaches in PPC – single condition maps
Activation during reach (red) trials or saccade (blue) trials compared to neutral trials in four subjects, using high (A) or low (B) threshold. Most of the PPC responded both for saccades and for reaches significantly above baseline.

Supplementary Figure 3
Saccades and reaches in PPC – relative contribution maps
Relative contribution of the saccade and reach predictors in four subjects. Most of the voxels in PPC were active both to saccades and to reaches (yellow shades).