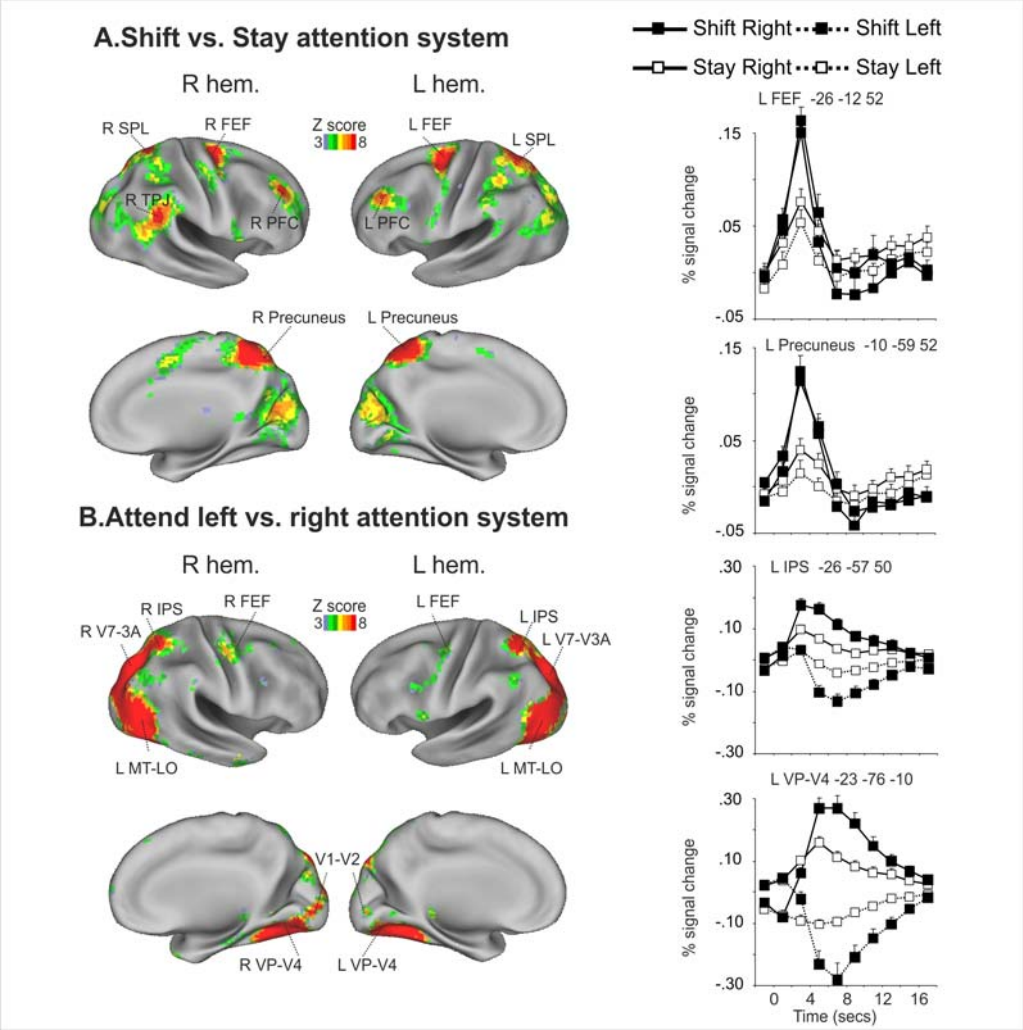
Supplementary Figures

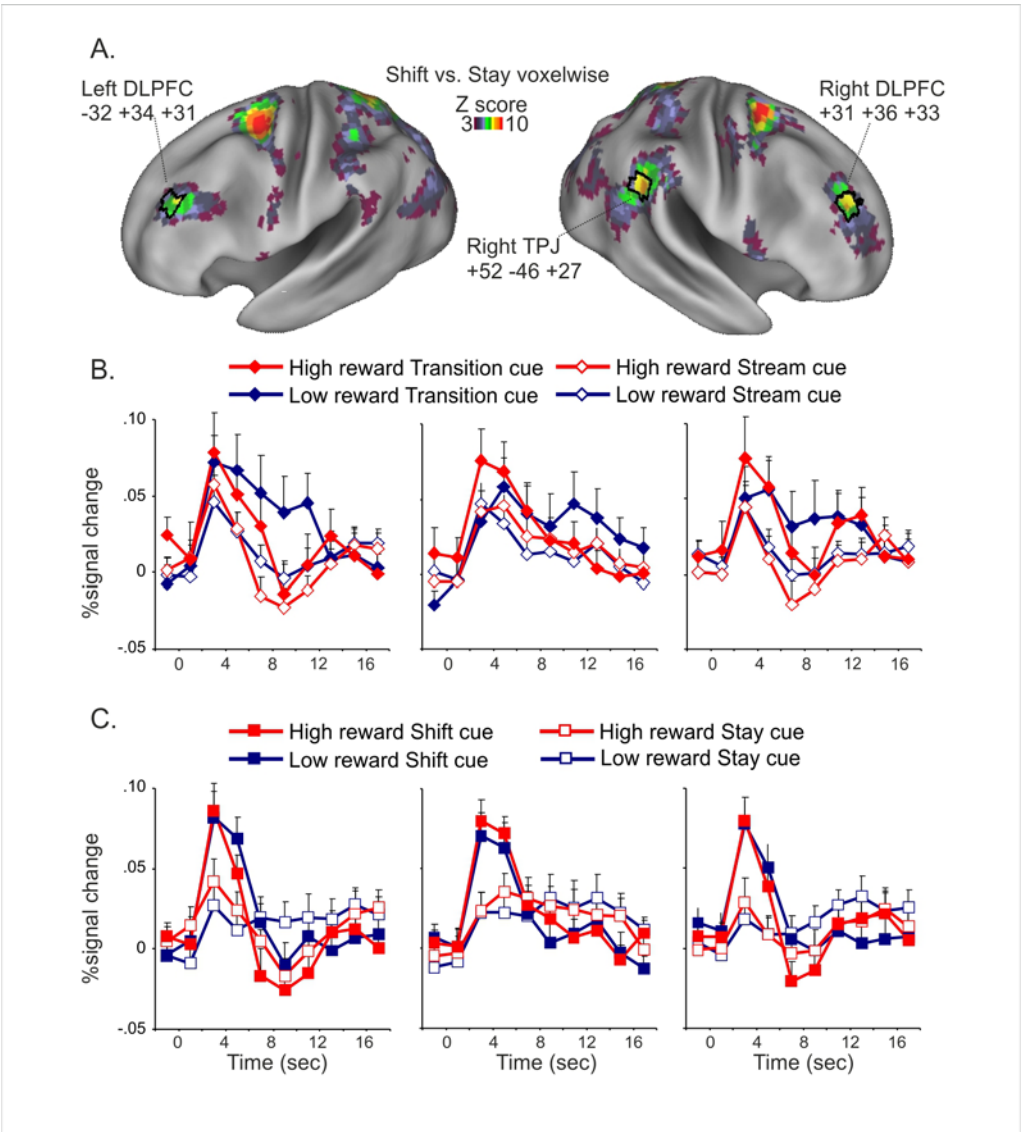
Supplementary Figure 1. **Attention-related networks.**



A.-B. Voxelwise ANOVA maps (corrected for multiple comparisons) of cue type (shift, stay) by time and cue location (left, right) by time are superimposed over a lateral and medial representation of both hemispheres of the PALS atlas.

The graphs shows the time course of the BOLD signal in two representative regions defined from each ANOVA map as a function of cue type and cue location. Error bars represent within-subjects standard error of the mean (s.e.m) calculated according to Cousineau, 2005.

Supplementary Figure 2. **Effects of changes in expected reward magnitude in shift-related regions of ventral fronto-parietal cortex.**

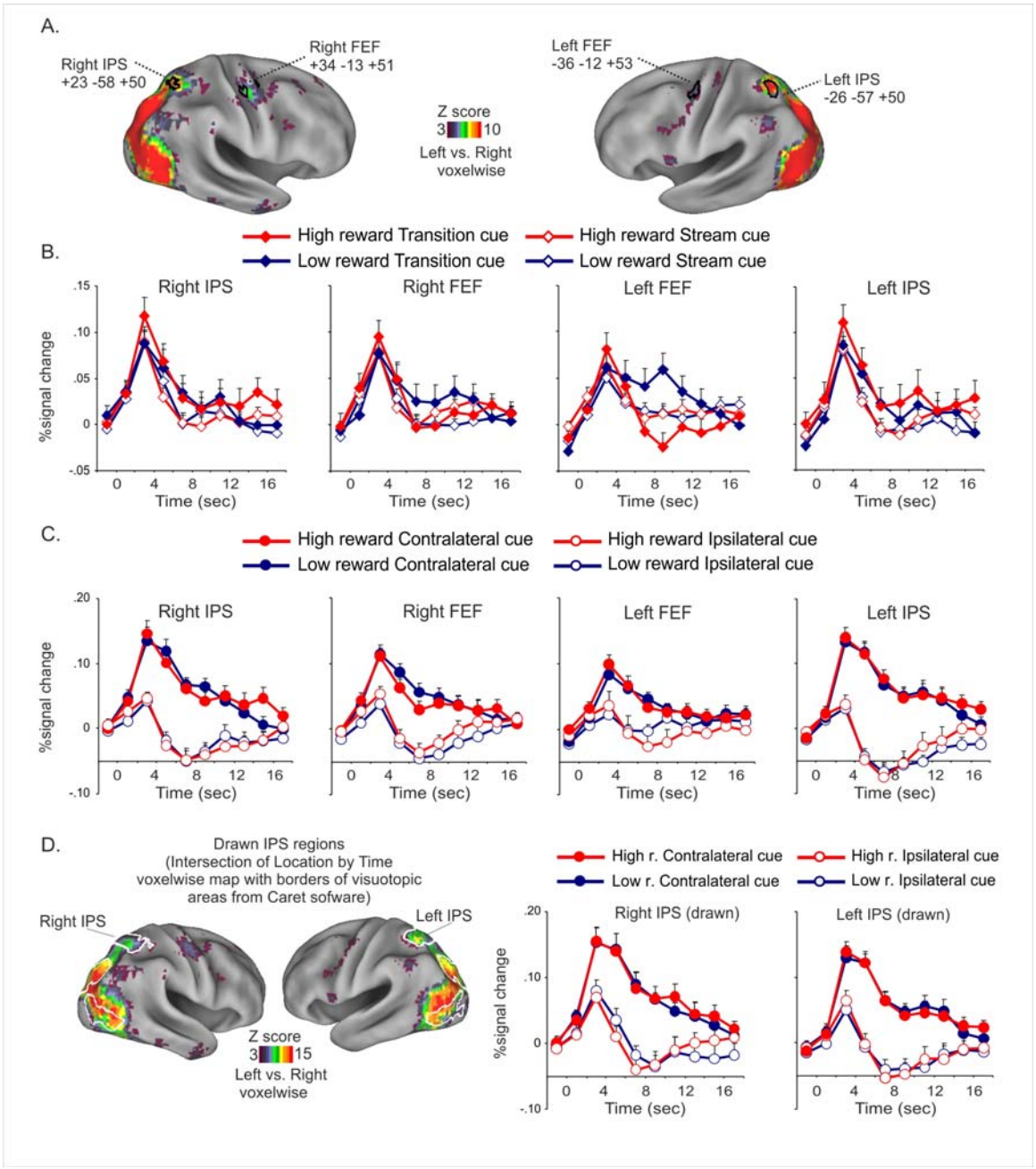


A. Voxels that showed a significantly different activation following shift and stay cues (cue type by time ANOVA map, corrected for multiple comparisons) are superimposed over a lateral representation of both hemispheres of the PALS atlas. Bilateral regions of dorsolateral prefrontal cortex (DLPFC) and right temporo-parietal cortex (TPJ) of ventral fronto-parietal cortex showing significantly different time courses following shift and stay cues are outlined in black.

The graphs show the time course of the BOLD signal following high and low reward cues as a function of cue onset position (**B**), and cue type (**C**) in the DLPFC and rTPJ ROIs

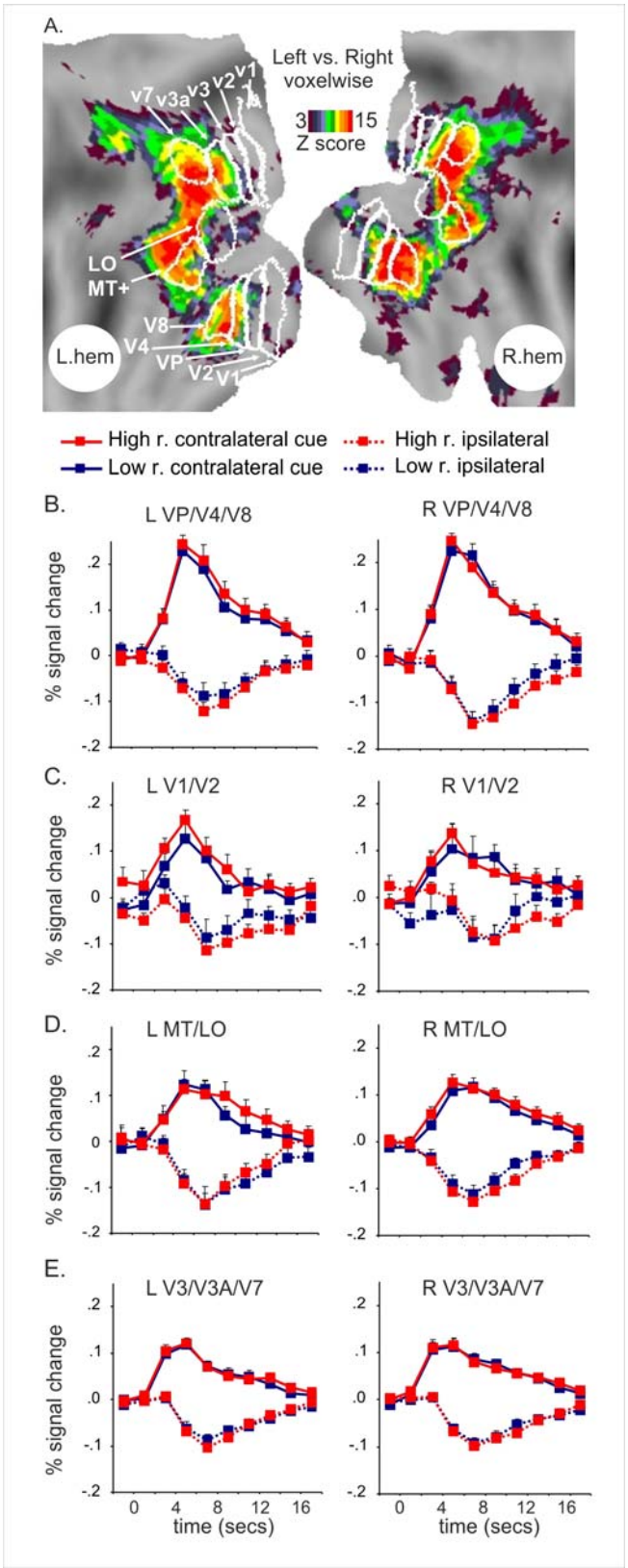
highlighted. Error bars represent within-subjects s.e.m calculated according to Cousineau, 2005.

Supplementary Figure 3. **Effects of changes in expected reward magnitude in spatially-selective regions of dorsal fronto-parietal cortex**



A. Voxels that showed a significantly different activation following left and right cues (cue location by time ANOVA map, corrected for multiple comparisons) are superimposed over a lateral representation of both hemispheres of the PALS atlas. Bilateral dorsal fronto-parietal regions of IPS and FEF showing significantly different time courses following left and right cues are outlined in black.
The graphs show the time course of the BOLD signal following high and low reward cues as a function of cue onset position (**B**), and cue location (**C**) in the IPS and FEF ROIs highlighted. Error bars represent within-subjects s.e.m calculated according to Cousineau, 2005.
(**D**) The borders of visuo-topic regions in the Caret software (white borders) and voxels showing significantly different activations following left and right cues (cue location by time ANOVA map, corrected for multiple comparisons) are superimposed over a lateral representation of both hemispheres of the PALS atlas. The graphs show the time course of the BOLD signal in the IPS ROIs defined from the intersection between the cue location by time map and the borders of visuo-topic regions, as a function of expected reward magnitude (low, high) and cue location (contralateral, ipsilateral). Error bars represent within-subjects s.e.m calculated according to Cousineau, 2005.

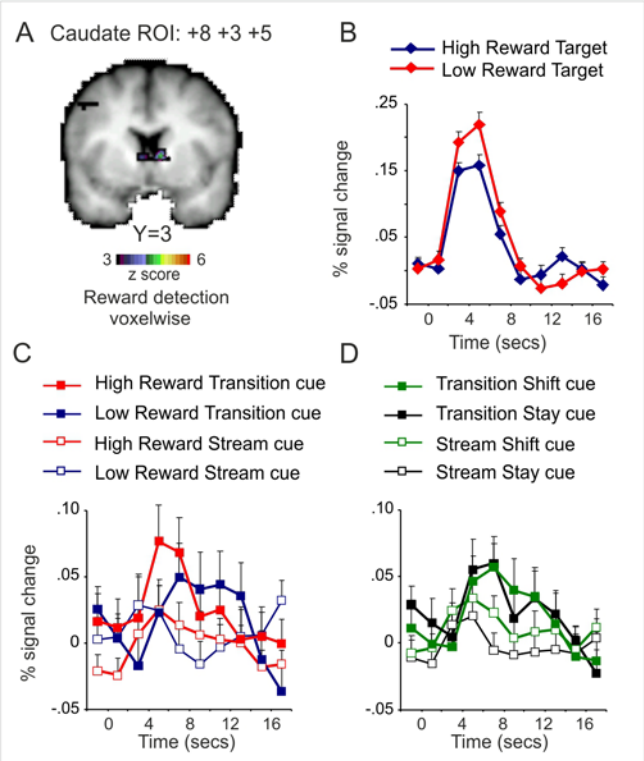
Supplementary Figure 4. **Effects of expected reward magnitude in visual cortex II**



A. The borders of visuo-topic regions in the Caret software (white borders) and voxels showing significantly different activation following left and right cues (cue location by time ANOVA map, corrected for multiple comparisons) are superimposed over a flat representation of both hemispheres of the PALS atlas.

B.-C.-D.-E. The graphs show the time course of the BOLD signal in the regions of ventral and dorsal visual cortex defined from the intersection between the cue location by time map and the borders of visuo-topic regions, as a function of expected reward magnitude (low, high) and cue location (contralateral, ipsilateral). Error bars represent within-subjects s.e.m calculated according to Cousineau, 2005.

Supplementary Figure 5. **Effects of reward target detection in caudate**



A. The coronal slice shows voxels in caudate that showed a significantly different time course following detection of high and low reward targets (reward target by time voxelwise ANOVA map, corrected for multiple comparison). **B.** The graph shows the time course of the BOLD signal following detection of high and low reward targets in the caudate ROI defined from the reward target by time map. **C-D.** The graphs shows the

time course of the BOLD signal in the caudate ROI defined from the reward target by time map, as a function of expected reward magnitude and cue onset position (left graph), or cue type and cue onset position (right graph). Error bars represent within-subjects s.e.m calculated according to Cousineau, 2005.