Fig. DS1 Areas with greater amplitude of activation or deactivation associated with signalled hallucination events compared with random button-pressing.

Threshold for visualisation of these areas was an uncorrected significance level of $P<0.005$. The vertical axis is the $z$ coordinate in Talairach space. Time shifts selected correspond to those projected to reflect hallucination periods themselves and a time period just prior to hallucination events. Although mean hallucination duration was less than 1 s, temporal smearing of activation due to haemodynamic response delay will result. The zero time shift corresponds to interpolated event onset signalled motorically. Boxed activations show regions of interest (ROIs) used for time-course analysis. Red box: hallucination-specific activation corresponding to the right middle temporal gyrus (MTG, Talairach coordinates of centre of mass, $x=51$, $y=21$, $z=7$) and right superior temporal gyrus (STG, Talairach coordinates 43, $-36$, 4) that were combined to constitute the right temporal ROI. Light brown box: regions of hallucination-specific activation in left STG ($-41$, $-46$, 14). Light green box: regions of hallucination-specific activation in the left inferior frontal gyrus (IFG; $33$, $36$, 9). Dark green box: regions of hallucination-specific activation in a right homologous IFG region ($47$, $29$, $5$). Dark brown box: regions of hallucination-specific activation in the midbrain ($1$, $17$, $15$). Although not a focus of this report, also apparent is reduced activity associated with auditory verbal hallucinations compared with random button-presses during negative time shifts. These findings appear in the right parahippocampal gyrus, more anterior STG regions bilaterally (corresponding to primary and secondary auditory cortex), and the right putamen. We analysed a total of ten time-shifts, but only six are shown in this figure (see Discussion).