

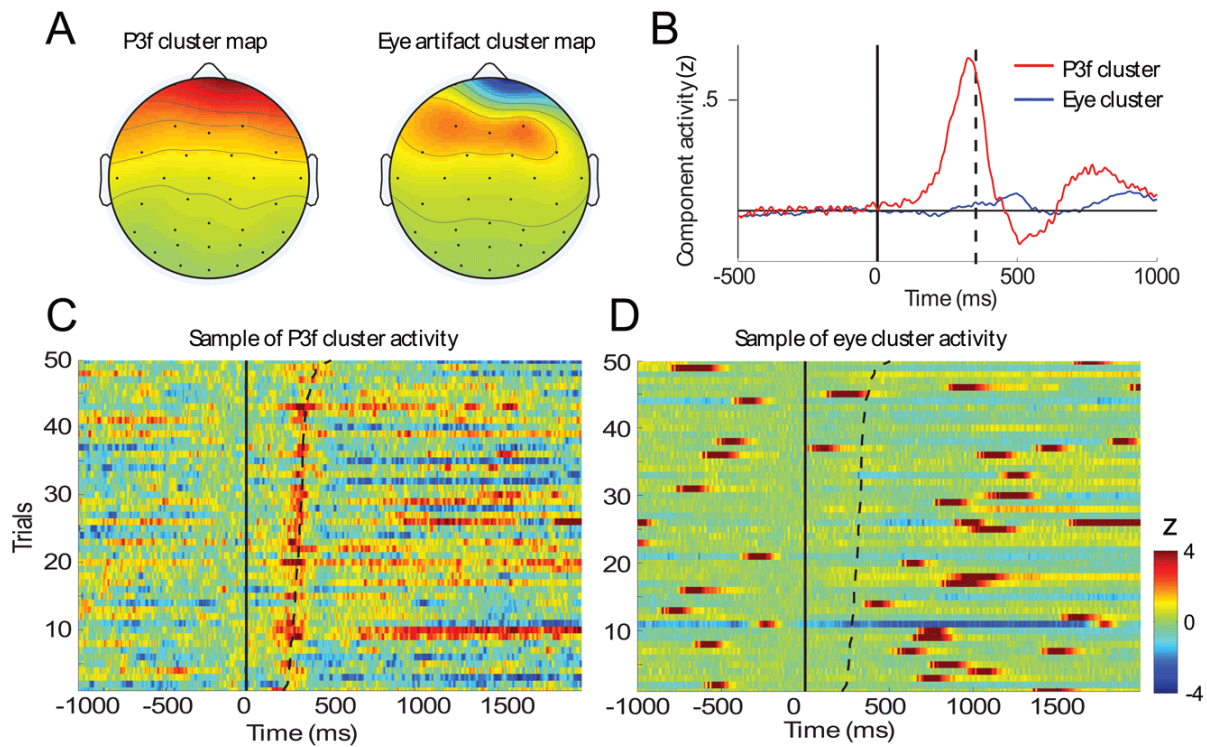
Supplementary Material

A Delorme, M Westerfield, S Makeig,

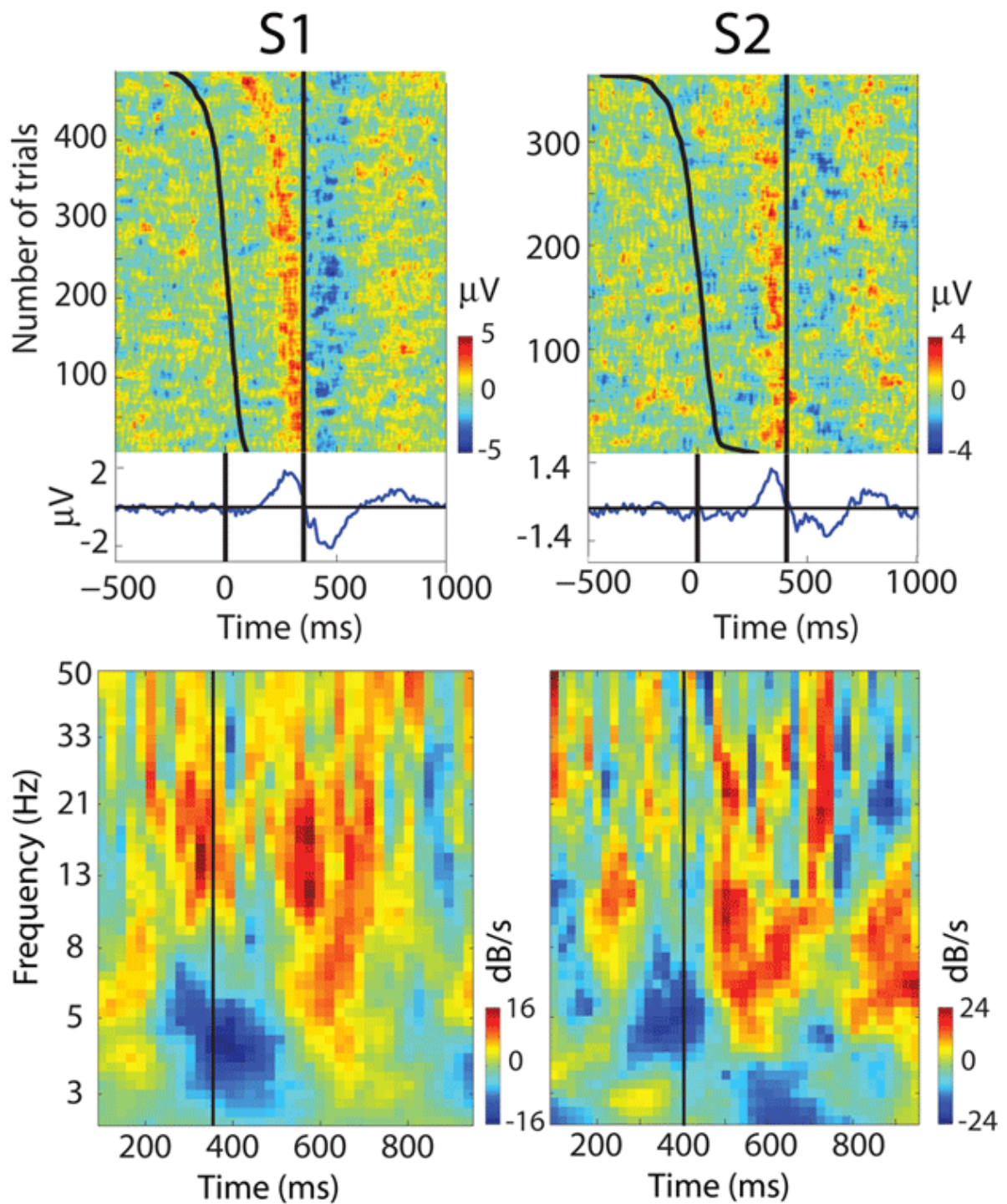
“Medial Prefrontal Theta Bursts Precede Rapid Motor Responses
during Visual Selective Attention.”

The Journal of Neuroscience, 27(44):11949-11959

doi:10.1523/JNEUROSCI.3477-07.2007



Supplementary Figure 10. A. Mean scalp maps for two independent data components accounting for the P3f peak (shown in C) and for randomly emitted eye blinks (shown in D) respectively. Note that the two peri-ocular channels were used in the scalp map interpolation though these electrodes are not visible as they are hidden by the scalp boundary circle. Note also, in the eye blink cluster map (right), the polarity reversal between the right sub-ocular channel and the left supra-ocular channel, consistent with generation in the eyes. Finally, note the difference in the P3f cluster map (left) – representing a monopolar projection to the forehead, similar to the detailed (‘P2a’) description by Potts et al. (2004). B. Grand-mean stimulus-locked ERP for the eye blink component cluster (blue) and the P3f component cluster (red), showing that eye blinks did not contribute to the P3f response. Single trials for each component were z-normalized by dividing by the standard deviation of the pre-stimulus component activity before imaging; vertical scale is in z units. C. ERP-image plot of fifty randomly selected, color-coded single trials from a P3f cluster component of one subject (color scale as in D). Note the regular appearance of the P3f peak just before the recorded button press (curving black trace). D. Much larger (color-saturated) activity in single trials of the eye blink cluster component, here appearing as brief brown (color-saturated, $z > 4$) excursions. As in (B), the color scales are in standard deviations (z).



Supplementary Figure 11. Characteristics of selected independent components of 253-channel data whose topographies are depicted in Figure 9. Top panels: ERP-image and ERP plots. Both components show an ERP peak preceding the manual responses. Bottom panels: correlation of reaction time with

spectral log power. Both subjects show significant negative correlation between 4-5 Hz theta power and RT preceding the button press (blue theta-band areas).