Dissociable Roles of Theta and Alpha in Sub-Second and Supra-Second Time Reproduction: An Investigation of their Links to Depression and Anxiety
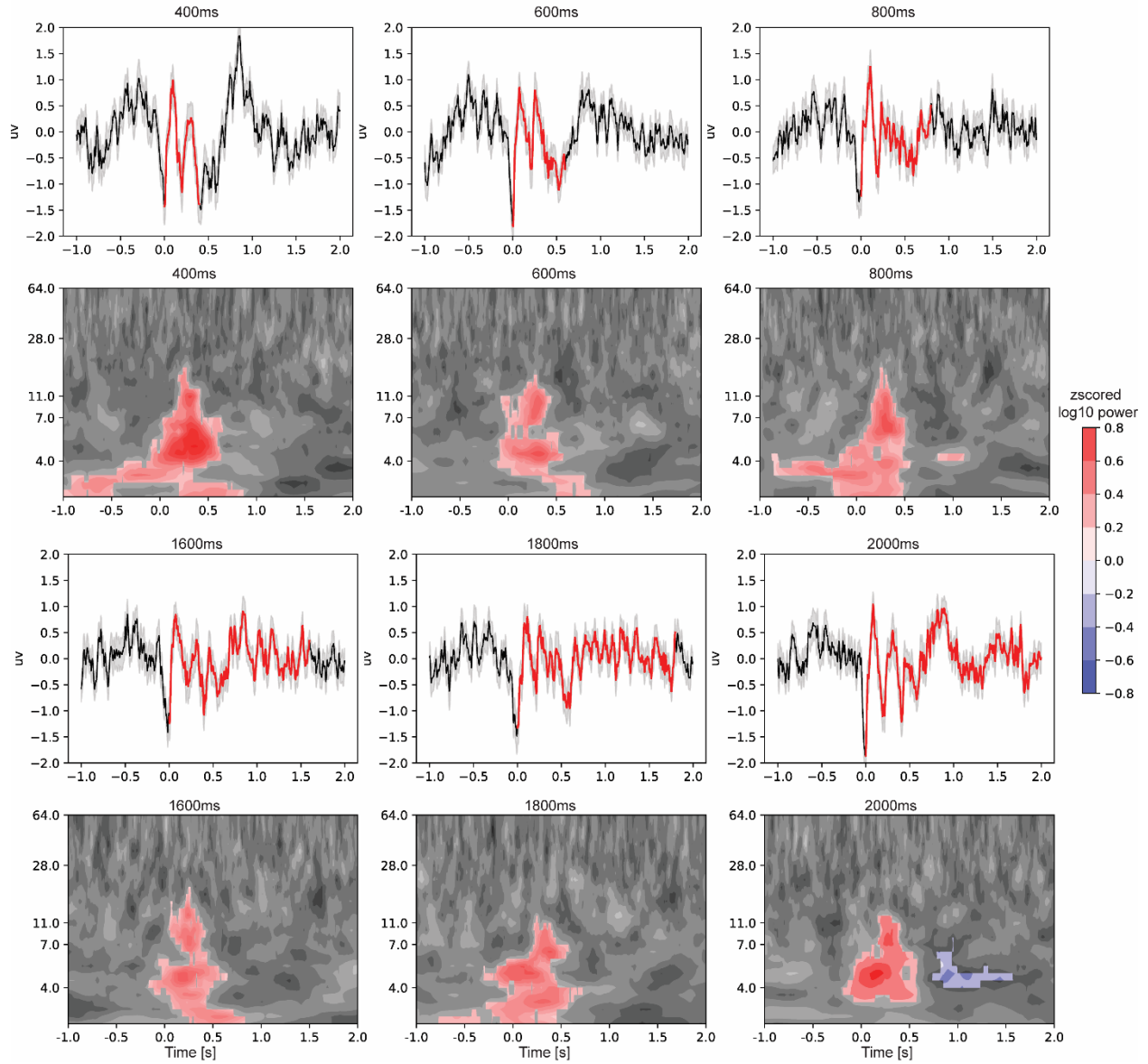
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Supplementary Material

ERP and evoked TFR at Fz

Figure S1. Onset-related event-related potentials (ERPs) and evoked theta oscillations are visible in both sub- and supra-second conditions at midfrontal electrode Fz. ERPs were obtained by averaging across trials and 50 participants. Time–frequency analyses performed on subject-specific ERP revealed a phase-locked evoked component of theta (4–8 Hz) oscillations at midfrontal electrode Fz, across all six possible intervals (indicated by the significant clusters returned by permutation tests). Notes: Shades in the ERP subplots indicate standard errors across

50 participants, and the red lines indicate the standard-interval encoding periods. The color values in the time–frequency plots presents z-scored power. Red and blue clusters indicate statistically significant ($p < 0.05$) clusters returned by permutation clustering algorithms (Maris & Oostenveld, 2007).

ERP and evoked TFR at POz
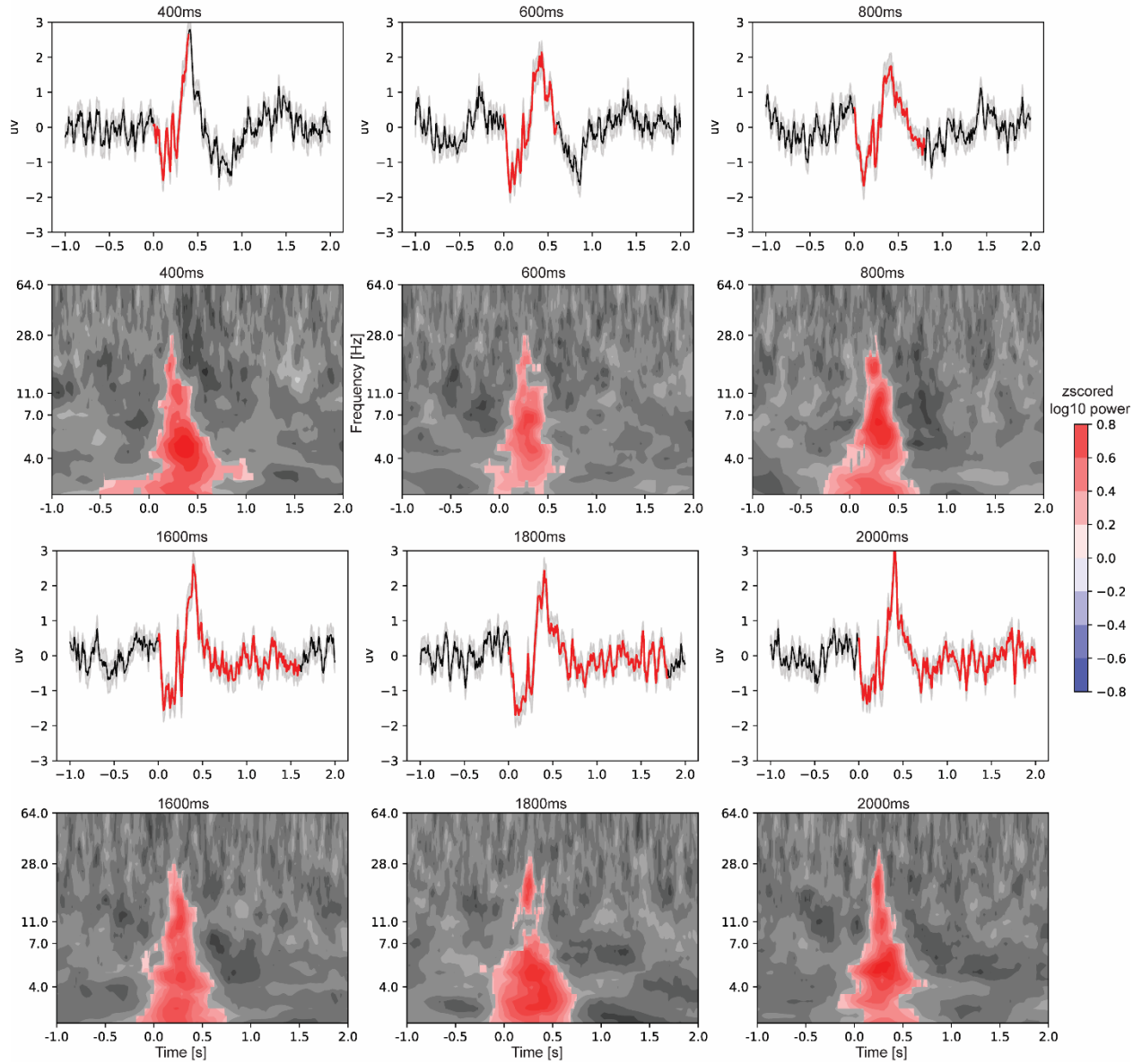
Figure S2. Onset-related event-related potentials (ERPs) are visible in both sub- and supra-second conditions at posterior electrode POz. At electrode POz, large amplitude ERPs were observed with the peaks near 500 ms post encoding onsets. Time–frequency analyses of the ERPs at POz revealed a significant broadband power increase covering 2–30 Hz.

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Reference

Maris, E. & Oostenveld, R. (2007). Nonparametric statistical testing of EEG- and MEG-data, *J. Neurosci. Methods*, **164**, 177–190. doi: 10.1016/j.jneumeth.2007.03.024