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Supplementary Materials

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4 More than meets the eye: neural correlates of consciousness in the sound- 5 induced flash illusion

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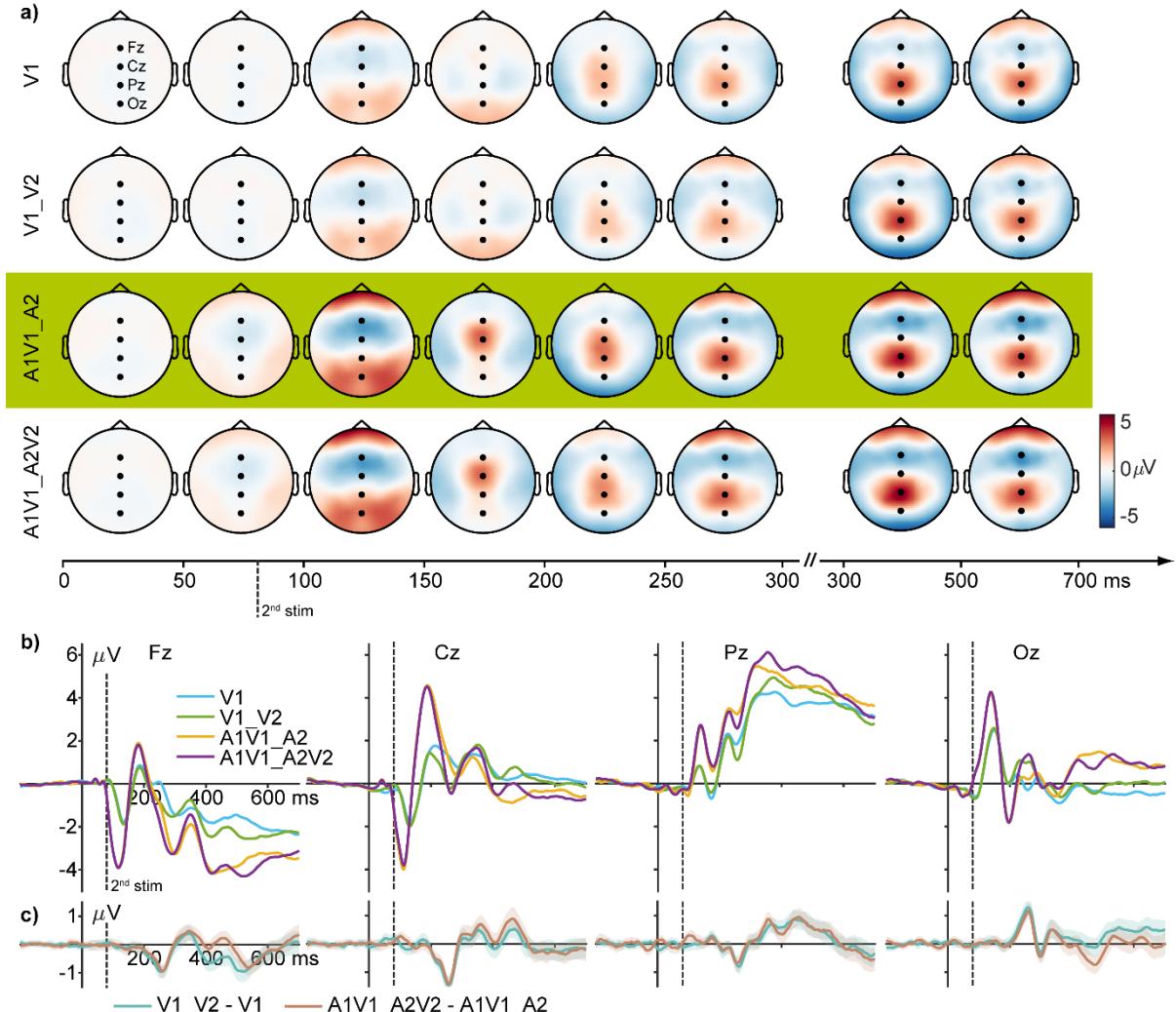
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1 **Data exploration for all experimental conditions**

2 To appropriately contextualize the ERPs of a second illusory stimulus, it seems
 3 useful to first establish an overview of the general ERPs elicited by a second flash in
 4 this paradigm. Topographic time series were plotted for all conditions (Figure 3A).



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Supplementary Figure S1. Spatiotemporal dynamics and neural signatures across experimental conditions **(a)** Topographic time series for all conditions. Scalp distribution of electrical potential. V = Visual stimulus; A = Auditory stimulus; 1 = first stimulus; 2 = second stimulus. The time series ranges from 0 to 700 ms post-stimulus onset. Time steps are 50 ms from 0-300 ms and then larger (200 ms 300-700 ms). Positive potentials are represented by warmer colors (e.g., red/orange), while negative potentials are represented by cooler colors (e.g., light/dark blue). Exemplary electrodes Fz, Cz, Pz, Oz. **(b)** Related potentials per condition and neural response to a second stimulus. ERPs recorded at four representative sites (Fz, Pz, Cz, and Oz) for different conditions (blue: V1_0, green: V1_V2, yellow: A1V1_A2, and purple: A1V1_A2V2). **(c)** Difference waveforms (right subplots) highlight the contrasts between V1_V2 - V1_0 and A1V1_A2V2 - A1V1_A2 conditions, providing insights into neural responses to the second stimulus (green: visual condition, brown: bimodal condition). Dashed line marks the second stimulus' onset.

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1 These visualizations provide an overview of the spatiotemporal ERP patterns.
2 For broader insights into the electrophysiological effects of the current paradigm,
3 Supplement Figure S1 illustrates the ERPs from four representative electrodes (Fz,
4 Cz, Pz, Oz) across all conditions V1_0, V1_V2, A1V1_A2, and A1V1_A2V2. The
5 difference waves (see Figure 3C) represent the ERP of the second flash alone, as the
6 effects of the initial visual stimulus have been subtracted (depicted in green for visual
7 conditions and brown for bimodal conditions).