
Figures and figure supplements

Rapid categorization of natural face images in the infant right hemisphere

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Figure 1. (A) Examples of face (F) and object (O) stimuli presented during a 20-s sequence at 6 Hz (i.e., 120 images). Face stimuli, varying considerably in size, viewpoint, expression, gender, so on appeared as every fifth image, that is, at 1.2 Hz rate ($\approx 6 \text{ Hz}/5$). For copyright reasons, the face pictures displayed in the figure are different than those used in the actual experiment, but the degree of variability across images is respected. The full set of face pictures is available at <http://face-categorization-lab.webnode.com/publications/> together with the paper reporting the original study performed in adults (Rossion et al., 2015). (B) Stimuli were presented in the center of the screen by means of sinusoidal contrast modulation at a rate of 6 Hz (i.e., 6 images/s).

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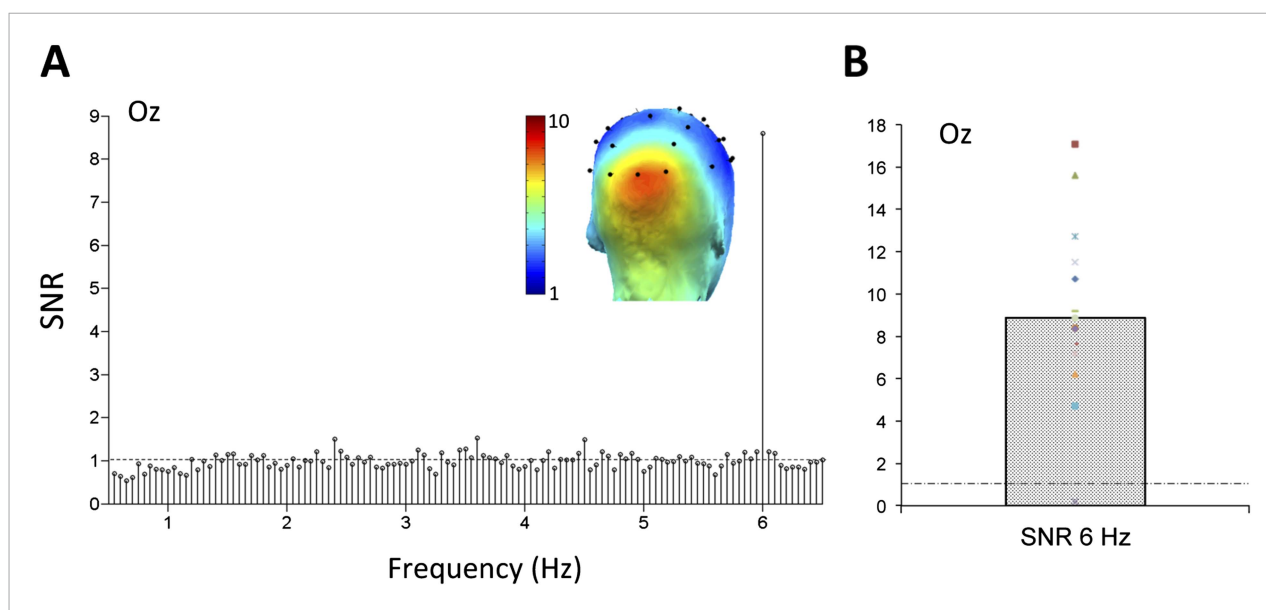


Figure 2. (A) Grand-averaged EEG signal-to-noise ratio (SNR) spectrum at a medial occipital electrode site (channel Oz). The SNR is computed across the whole spectrum as the ratio of the amplitude (in microvolts) at each frequency bin and the 20 surrounding frequency bins (Liu-Shuang *et al.*, 2014; see 'Materials and methods'). For EEG amplitude spectra. (B) The SNR response at 6 Hz on electrode Oz, showing above noise level (>1) responses for all infants tested but one.

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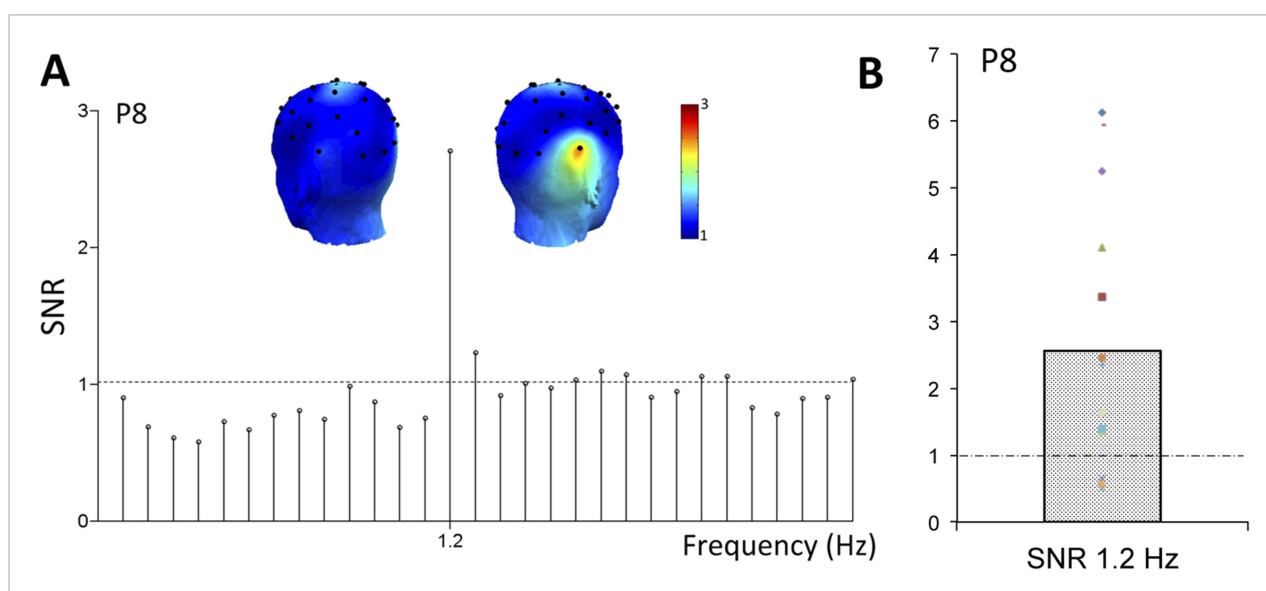


Figure 3. (A) Grand-averaged EEG SNR spectrum at the right hemisphere occipito-temporal channel P8, showing a distinct peak exactly at the face stimulation frequency (1.2 Hz). (B) The SNR response of individual infants at 1.2 Hz, on electrode P8. Color codes are congruent with Figure 2.

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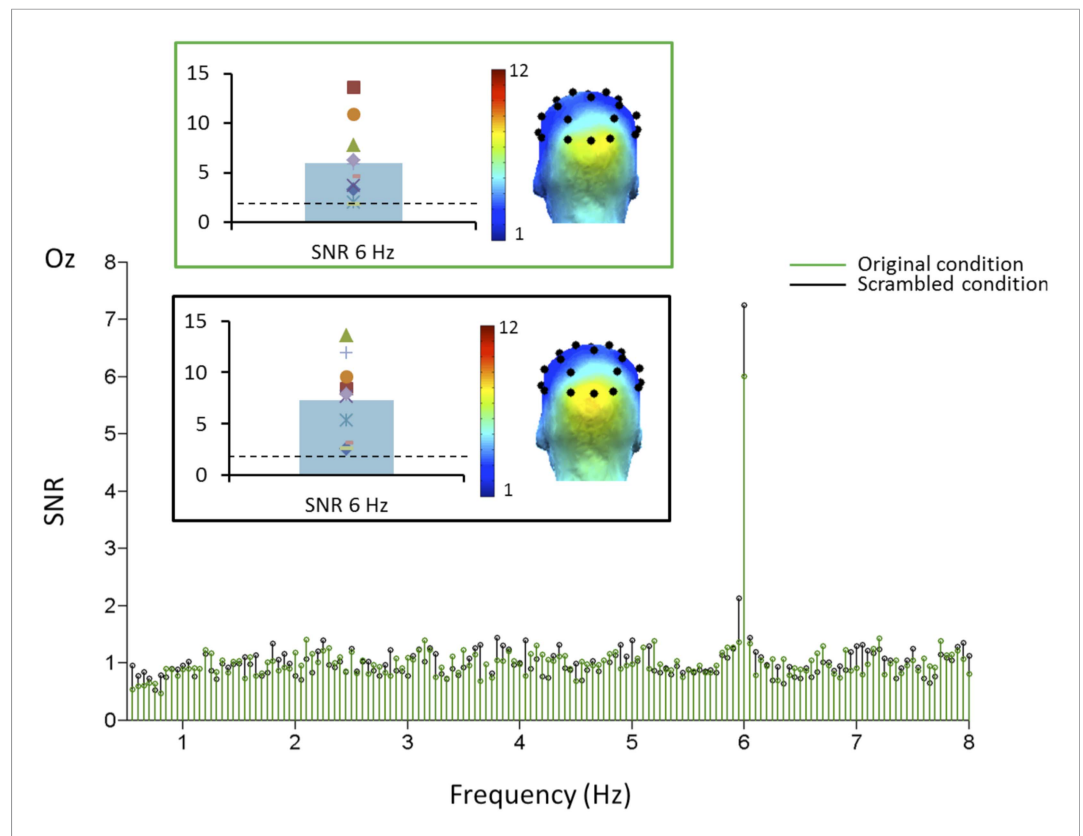


Figure 4. Grand-averaged SNR at channel Oz in Experiment 2. The SNR peak at the base stimulation frequency (6 Hz) is highly significant and spread over the medial occipital lobe (O1-Oz-O2) in both conditions, as indicated on the scalp topography. There was no significant difference between the 2 conditions.

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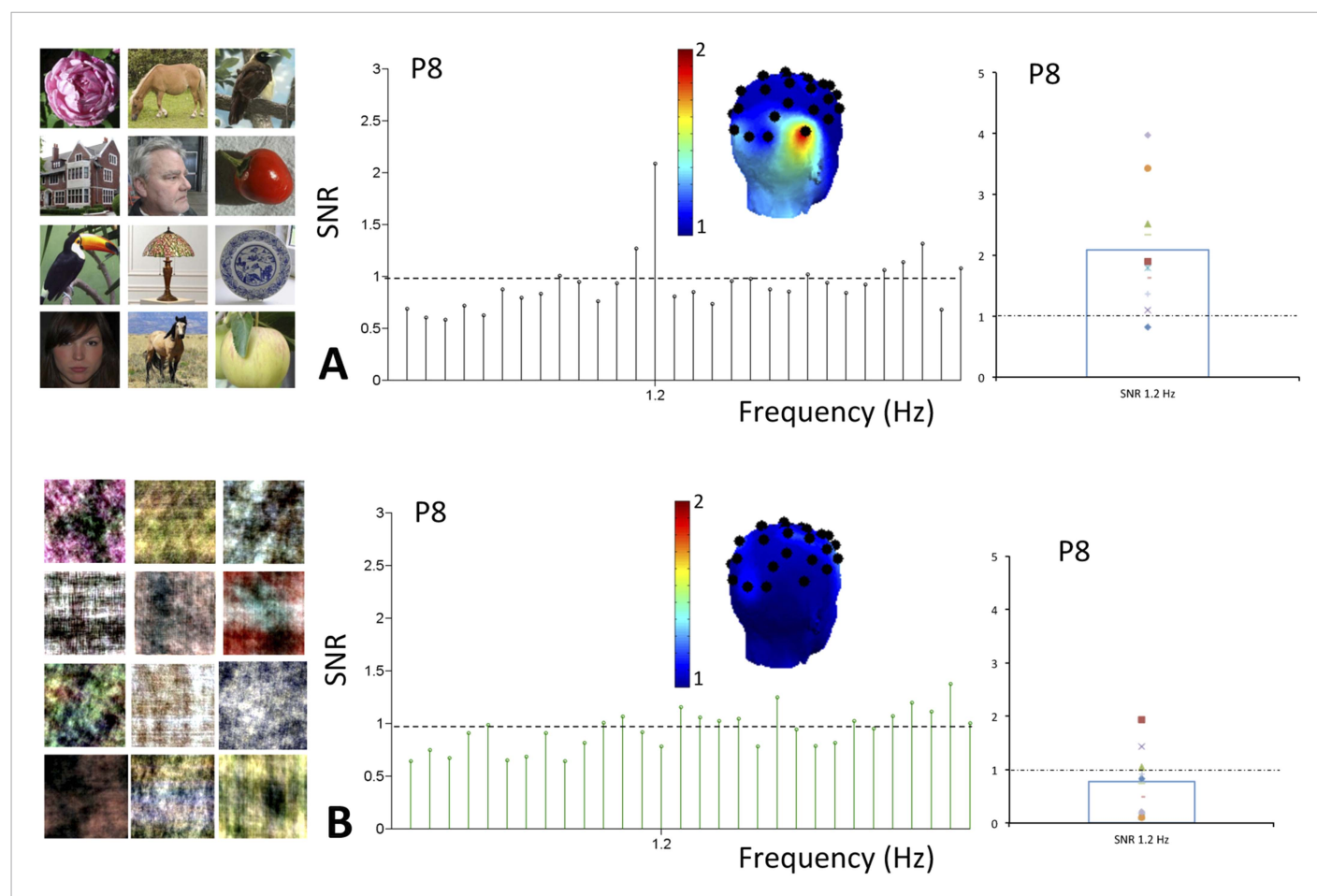


Figure 5. (A) Grand averaged EEG SNR spectrum at 1.2 Hz in experiment 2, showing above noise-level (>1) response for faces at channel P8, as shown on the scalp map. On the right, individual SNR values at 1.2 Hz for this second experiment. (B) There was no distinct peak in the EEG spectrum at 1.2 Hz for corresponding phase-scrambled images, as displayed on the left. As in **Figure 1**, for copyright reasons, the face pictures displayed in the figure are different than those used in the actual experiment, but the degree of variability across images is respected. The full set of face pictures is available at <http://face-categorization-lab.webnode.com/publications/> together with the paper reporting the original study performed in adults (Rossion et al., 2015).

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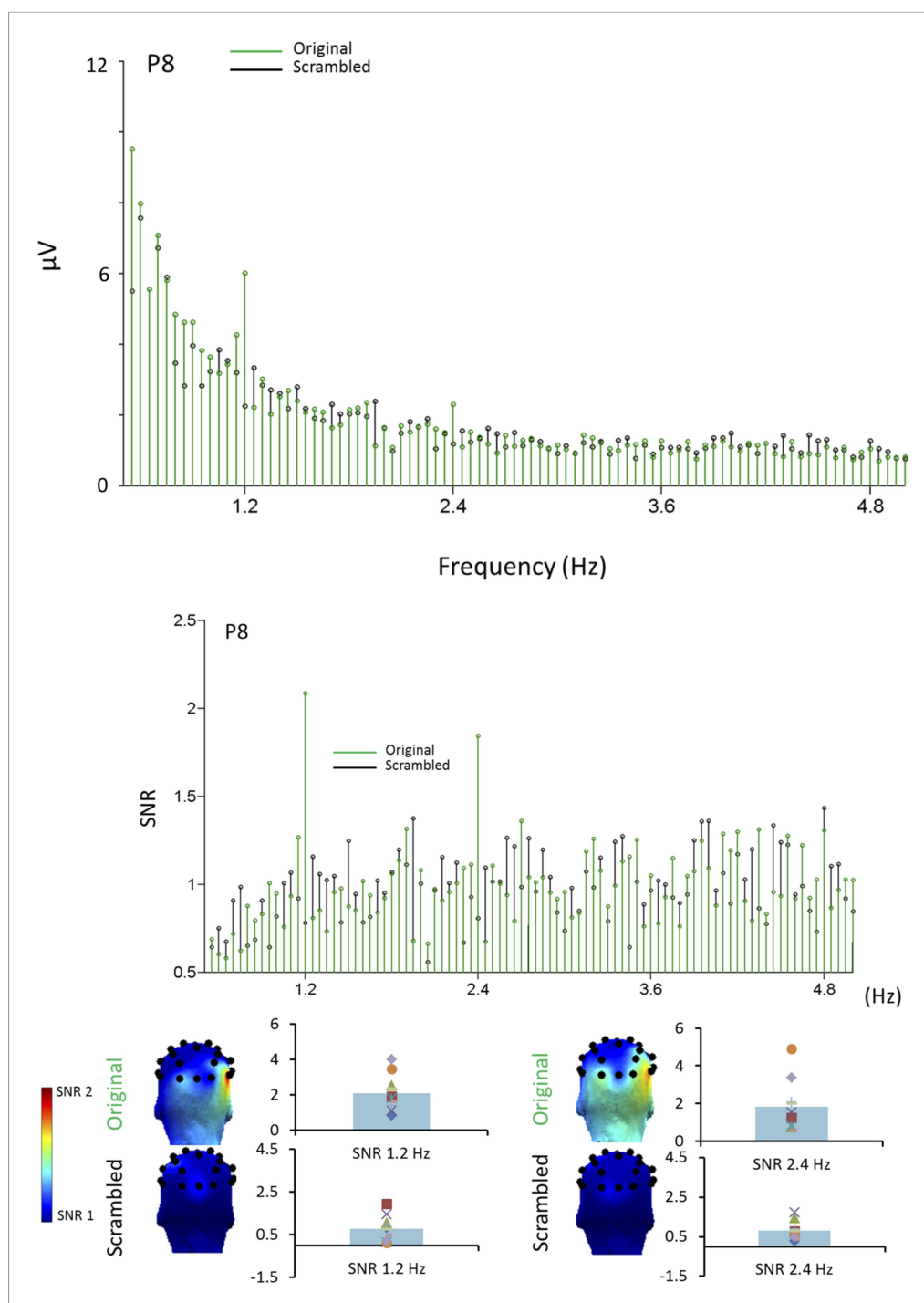


Figure 5—figure supplement 1. Face-selective responses at first and second harmonic for natural images but not phase-scrambled images. Top. Grandaveraged EEG spectrum (in microvolts) from 0 Hz to 5 Hz for experiment 2 (original images in green, scrambled images in black). The peak at 1.2 Hz is visible only for the original images. Note also the smaller response at the second harmonic (2.4 Hz). Middle row. SNR transformed grandaveraged spectrum, showing the clear responses at 1.2 Hz and 2.4 Hz, well above 1 (signal = noise level). Bottom. Topographical maps (back view) and SNR distribution across individuals for the original and scrambled images, for both harmonics.

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