Trial #140 — Recognition Potential Analysis

NO CONNECTED ELECTRODES

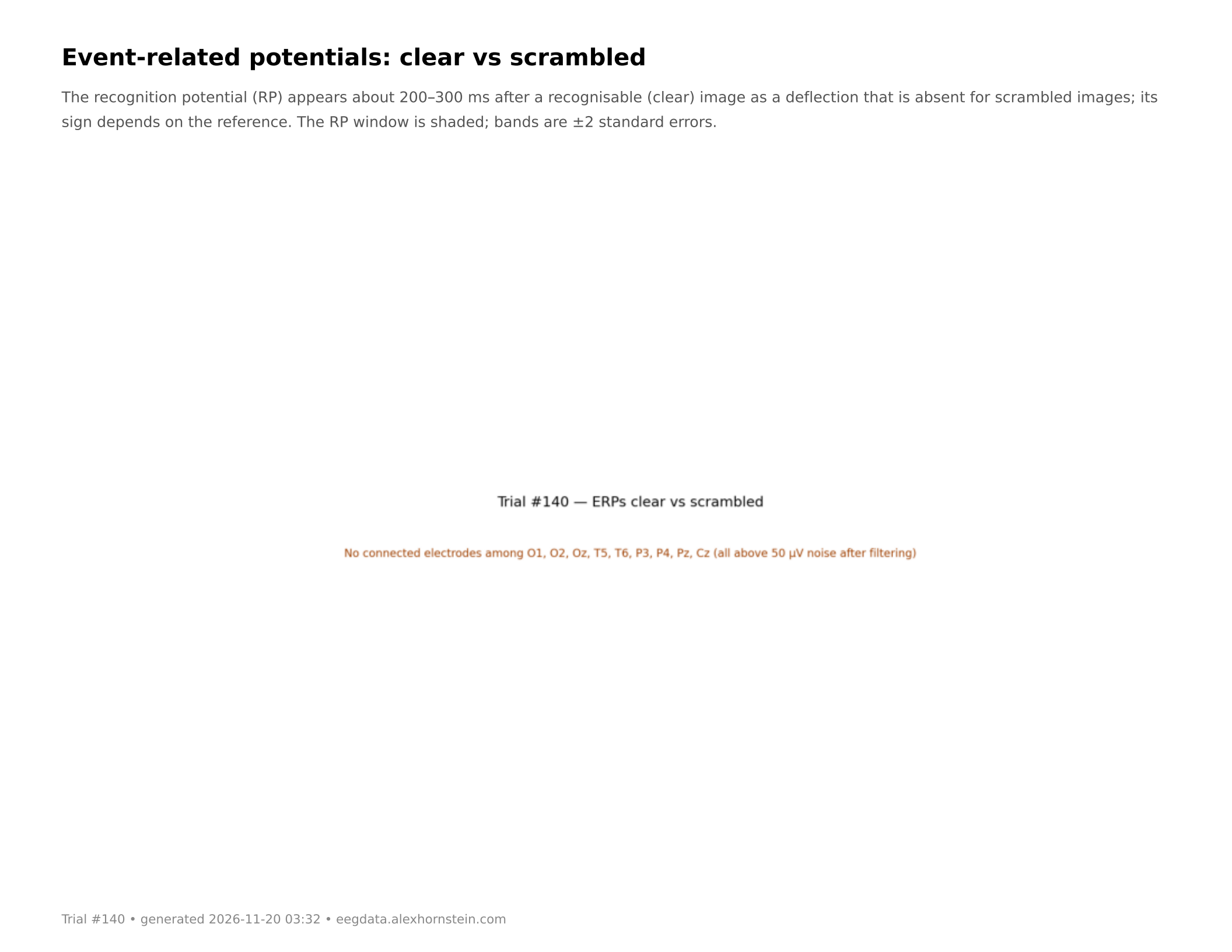
Subject	AF • recorded 01/02/2026 21:15:19.403 • dataset Celebrities
Stimuli	501 images: 73 clear, 428 scrambled • 63 keypresses (66 matched to clear images, median RT 437 ms)
EDF file	fp_20260102_224537.edf
Alignment	photodiode on FP1 (positive and negative spikes, matched to every image); clock offset 24625 ms (EDF header would give -5417597 ms); 393/501 images matched; drift -28 ppm; jitter 30.9 ms
Electrodes	noise after filtering — O1 173 µV, O2 217 µV, T5 186 µV, T6 207 µV, P3 544 µV, P4 492 µV, Pz 478 µV, Cz 511 µV (✓ = used, threshold 50 µV)
Processing	60 Hz notch, 0.5–15 Hz bandpass, epochs -200 to 800 ms, baseline -200 to 0 ms, reject > 100 µV peak-to-peak

⚠ Only 62% of images matched a photodiode spike on FP1, so the alignment may be wrong. Check the alignment plot before trusting these averages.

⚠ No connected electrodes among O1, O2, Oz, T5, T6, P3, P4, Pz, Cz (all above 50 µV noise).

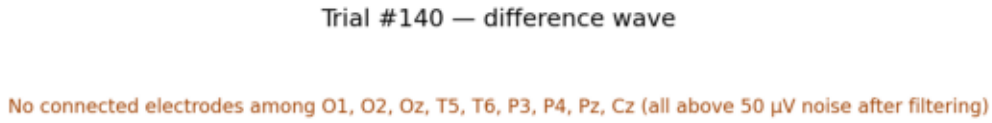
Event-related potentials: clear vs scrambled

The recognition potential (RP) appears about 200–300 ms after a recognisable (clear) image as a deflection that is absent for scrambled images; its sign depends on the reference. The RP window is shaded; bands are ±2 standard errors.



Difference wave (clear − scrambled)

Images arrive every ~330 ms, so each epoch also contains responses to neighbouring images. Subtracting the scrambled average removes that shared part and isolates the RP.



Keypress-locked average

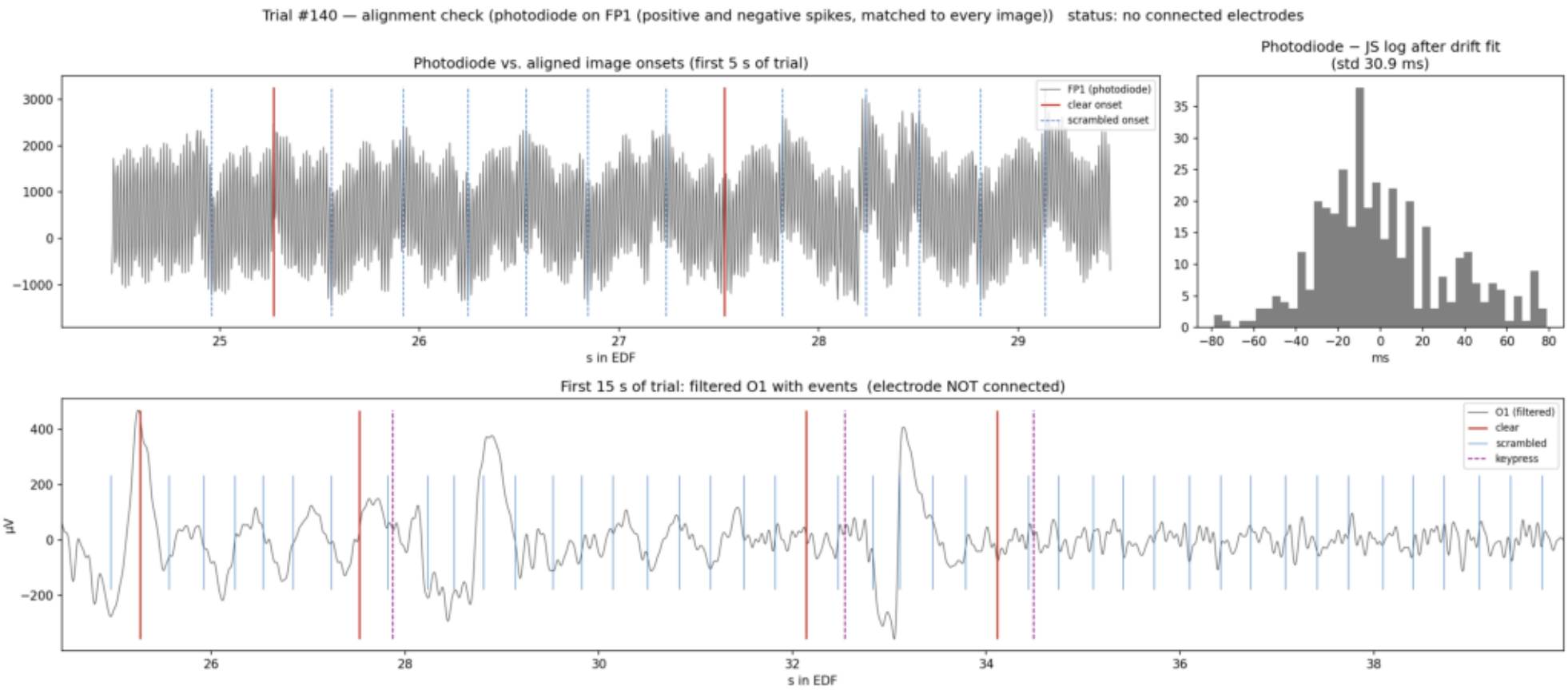
Checks whether activity tied to the button press, rather than recognition, drives the difference between clear and scrambled images.

Trial #140 — keypress-locked average

No connected electrodes among O1, O2, Oz, T5, T6, P3, P4, Pz, Cz (all above 50 µV noise after filtering)

Alignment check and signal overview

Each image onset is snapped to its photodiode spike. Bottom: the first 15 s of the filtered signal with image onsets and keypresses.



Analysis log

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Trial #140 — subject AF, 01/02/2026 21:15:19.403
  EDF: /home/japhy/eegdata/media/trialData/fp_20260102_224537.edf
  250 Hz, 197 s; 501 images (73 clear, 428 scrambled); 63 presses
  alignment: photodiode on FP1 (positive and negative spikes, matched to every image)
    offset 24625 ms (EDF header says -5417597); 62% of images matched (typical 22%); drift -28 ppm; jitter 30.9 ms
  electrode noise (µV): O1 173, O2 217, T5 186, T6 207, P3 544, P4 492, Pz 478, Cz 511
  using: NONE
  66 of 73 clear images followed by a keypress (median RT 437 ms)
  status: no connected electrodes
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