Trial #136 — Recognition Potential Analysis

NO CONNECTED ELECTRODES

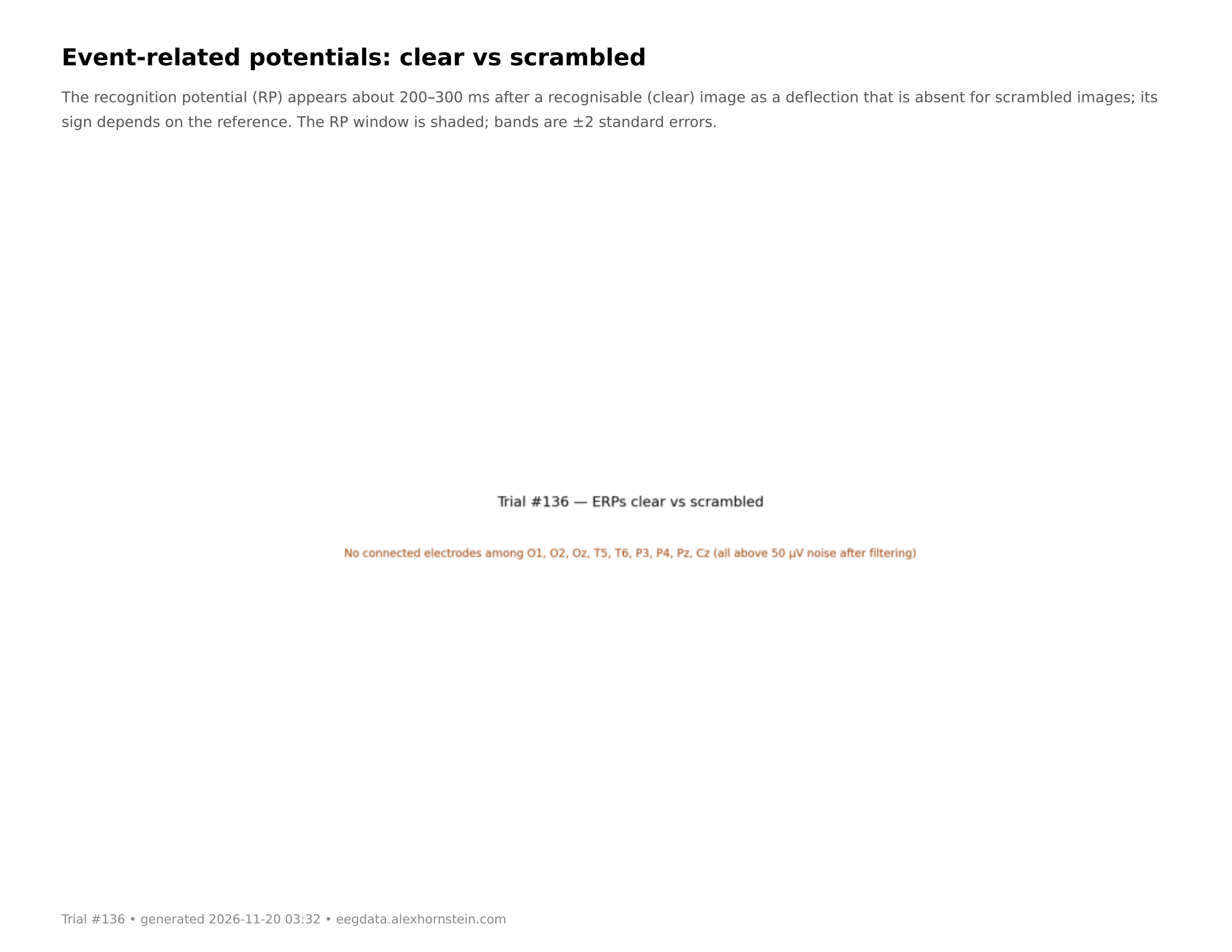
Subject	AF • recorded 01/02/2026 20:54:22.510 • dataset Celebrities
Stimuli	501 images: 77 clear, 424 scrambled • 76 keypresses (76 matched to clear images, median RT 441 ms)
EDF file	fp_20260102_222450.edf
Alignment	photodiode on FP1 (positive and negative spikes, matched to every image); clock offset 15020 ms (EDF header would give -5427490 ms); 400/501 images matched; drift -132 ppm; jitter 26.9 ms
Electrodes	noise after filtering — O1 128 µV, O2 125 µV, T5 140 µV, T6 144 µV, P3 484 µV, P4 437 µV, Pz 600 µV, Cz 416 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 68% 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).

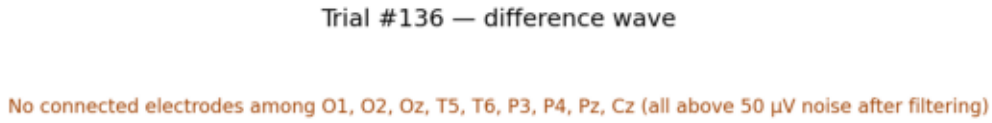
Event-related potentials: clear vs scrambled

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

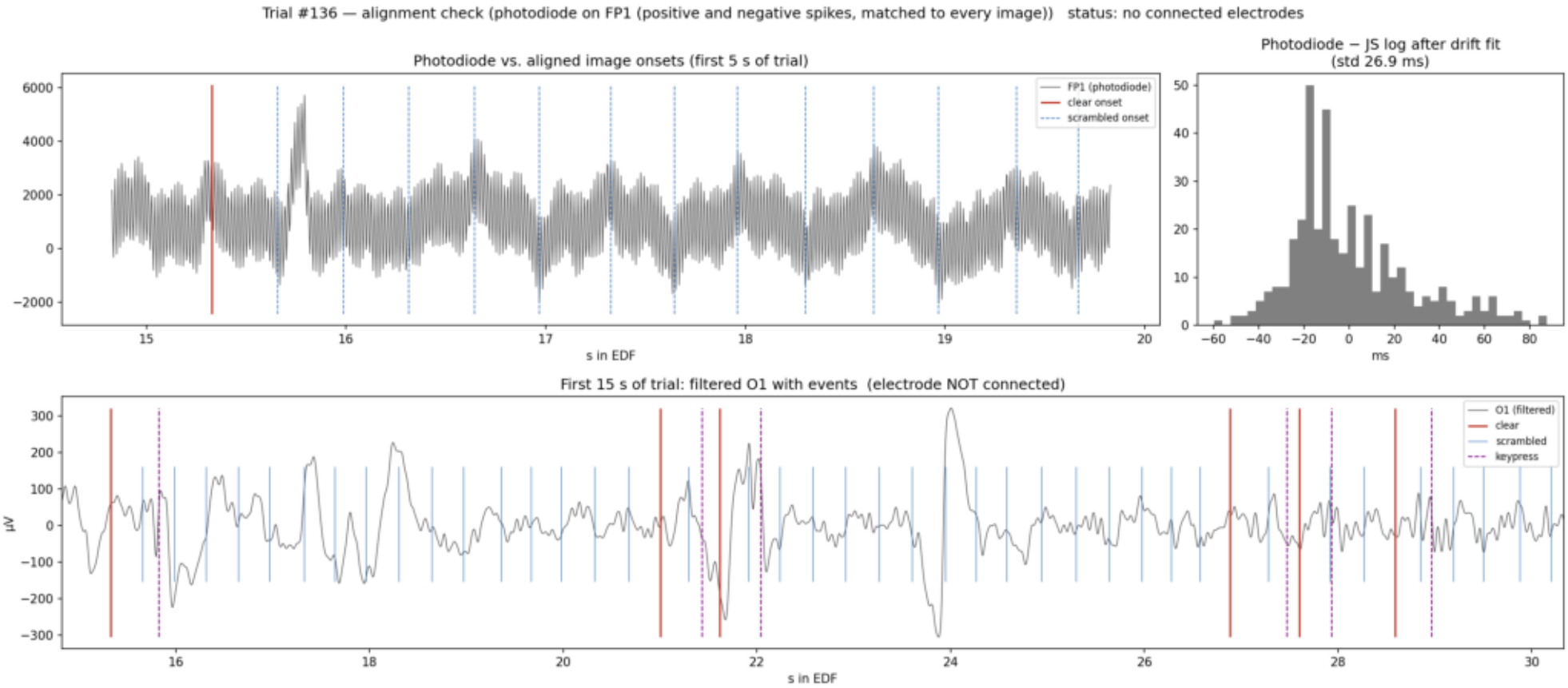
Checks whether activity tied to the button press, rather than recognition, drives the difference between clear and scrambled images.

Trial #136 — 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 #136 — subject AF, 01/02/2026 20:54:22.510
  EDF: /home/japhy/eegdata/media/trialData/fp_20260102_222450.edf
  250 Hz, 187 s; 501 images (77 clear, 424 scrambled); 76 presses
  alignment: photodiode on FP1 (positive and negative spikes, matched to every image)
    offset 15020 ms (EDF header says -5427490); 68% of images matched (typical 23%); drift -132 ppm; jitter 26.9 ms
  electrode noise (µV): O1 128, O2 125, T5 140, T6 144, P3 484, P4 437, Pz 600, Cz 416
  using: NONE
  76 of 77 clear images followed by a keypress (median RT 441 ms)
  status: no connected electrodes
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