**Methods**

The CPP analysis consisted simply of averaging the single-trial waveforms, which were baseline-corrected relative to the 500-ms interval before target onset.

CPP amplitude and latency measures were taken from the average of three electrodes centered on standard site CPz..

The grand-average waveforms were low-pass filtered up to 10 Hz for display only.

(O’Connell et al., 2012).

CPP waveforms were generated for each participant by averaging the single-trial epochs, which were baseline-corrected relative to the 200 ms interval ending at target onset.

CPP amplitude and latency were measured from electrodes centered on the region of maximum component amplitude identified in the grand average scalp topography (2 electrodes closest to standard site CPz, consistent with O’Connell et al., 2012).

Buildup rate was measured as the slope of a straight line fitted to the unfiltered ERP waveform of each subject, using the interval 200 to 350 ms for the stimulus-aligned CPP, -250 to -100 ms for the response-aligned CPP.

(Kelly & O’Connell, 2013)

First- and second-order trial-averaged CPP signals were measured as the average voltage per m2 from three centro-parietal electrodes centered on the region of maximum component amplitude in the grand-average response-locked topography (Pz, P1, P2).

Single-trial amplitude was defined as mean signal in the 0.2 s preceding error detection for the CPP. Single-trial build-up rate was measured as the slope of a straight line fitted to each waveform using the interval +0.1 to +0.3 s for the CPP (Figure 4b).

Single-trial peak latency was measured as the time of maximum signal amplitude relative to error commission within a dynamic measurement window with a start time of +0.1 for the CPP.

(Murphy et al., 2015)

The CPP was measured at peak electrodes Pz and POz.

CPP were locked to the task-relevant sensory change (switch from random to coherent motion) onset.

CPP build-up was defined as the slope of a straight line fitted to the response-locked waveform at -500 to -100ms.

(Loughnane et al., 2016)

The CPP was measured at peak electrodes Pz.

CPP build-up rate was defined as the slope of a straight line fitted to the response-locked waveform (O’Connell et al., 2012; Kelly and O’Connell, 2013; Loughnane et al., 2016) with the time window defined individually for each participant as the 100 ms before the maximum CPP amplitude preresponse.

Onset latency of the CPP was measured by performing running sample point by sample point t tests against zero across each participant’s stimulus-locked CPP waveforms.

CPP onset was defined as the first point at which the amplitude reached significance at the 0.05 level for >= 15 consecutive points.

(Newman et al., 2017) **code**

Stimulus-locked CPP waveforms were generated for each participant by averaging the single-trial epochs.

Response-locked CPPs were derived by extracting epochs from −900 to 300 ms relative to the time of the response.

CPP amplitude and latency were measured at a single electrode centred on the region of maximum component amplitude identified in the grandaverage response-locked scalp topography (standard site Pz).

The peak magnitude of the response-locked CPP was calculated as the maximum voltage within the − 100–100ms window centred on the individual response time.

The build-up rate of the response-locked CPP was measured as the slope of a straight line fitted to the unfiltered ERP waveform over a time window of −250 to −100 ms.

(McGovern et al., 2018)

the CPP was measured at central electrode Pz.

Onset latency of the CPP was measured by performing running sample point by sample point t-tests against zero across each participant’s stimulus-locked CPP waveforms.

CPP onset was defined as the first point at which the amplitude reached significance at the 0.05 level for >= 15 consecutive points.

Both CPP build-up rate and amplitude were computed using the response-locked waveform of the CSD transformed data to minimize influence from negative-going fronto-central scalp potentials (Kelly and O’Connell, 2013).

Build-up rate was defined as the slope of a straight line fitted to this signal in the window from -250 ms to -50 ms before response.

CPP amplitude was defined as the mean amplitude within the 100 ms around the response.

(van Kempen et al., 2019)

In line with O’Connell et al. (2012), the centro-parietal positivity was defined as the average signal at electrode CPz and two of its neighbours, CP1 and CP2.

(van Vugt et al., 2019)

The single-trial EEG signal from electrode CPz was averaged over a brief time period during which a modulation of the CPP by the signed values of SPFDs (i.e., 250–500 ms) or by its absolute values (i.e., 500–800 ms) was observed.

(Herding et al., 2019)

The CPP was measured at electrode Pz.

The N2c, CPP and FCN signals were aggregated to average waveforms as a function of target hemifield for each participant.

Onset latency of the CPP was measured by performing running sample point by sample point t-tests against zero using a 25-ms sliding window across each participant’s stimulus-locked CPP waveforms. CPP onset was defined as the first point at which the amplitude reached significance at the 0.05 level for 15 consecutive points.

CPP build-up rate was defined as the slope of a straight line fitted to the response-locked waveform with the time window defined individually for each participant as 100 ms pre-response. CPP and FCN amplitudes were measured as the mean amplitude within the same 100-ms pre-response window.

(Brosnan et al., 2020) **code**

the CPP was measured as the mean amplitude in a cluster of four electrodes between standard sites Pz and CPz.

Pre-evidence CPP amplitude with respect to a pre-cue baseline, which was used to test for starting point effects of regime and prior cue validity, was measured by integrating across a 59 ms window ending at evidence onset.

Pre-response CPP amplitude was measured in a 59 ms time window centred on -97.5 ms, the earliest inflection point of the contralateral motor cortical ERP (C3/C4) estimated as described above.

CPP signal slope was tested for early accumulation by fitting a line to the 118 ms period beginning at evidence onset. CPP temporal slope differences across regimes were also tested by again fitting a line in 118 ms windows, starting from 200 ms post-evidence and ending at −97.5 ms pre-response.

(Kelly et al., 2021) **code**

The CPP was measured at peak electrode Pz.

To determine the CPP build-up rate, the processed CPP waveform was first locked to the participant's response.

The CPP build-up rate was then determined as the slope of a straight line fitted to the response locked CPP waveform from 150 msec before to the time of the response.

CPP onset latency was measured by performing running sample-point by sample point t tests against zero across each participant's stimulus-locked CPP waveforms. CPP onset was defined as the first point at which the amplitude reached significance at the .05 level for 10 consecutive points.

(Stefanac et al., 2021)

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