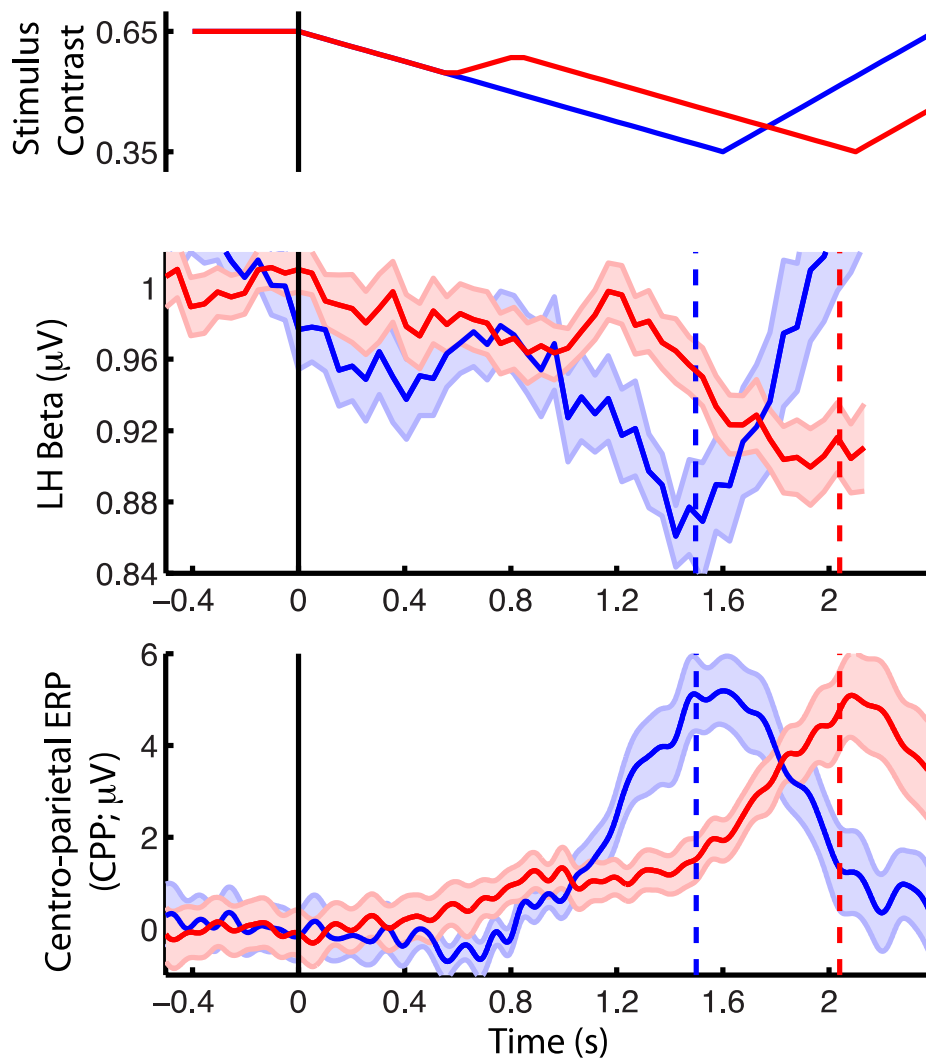


Supplementary Figures and Legends

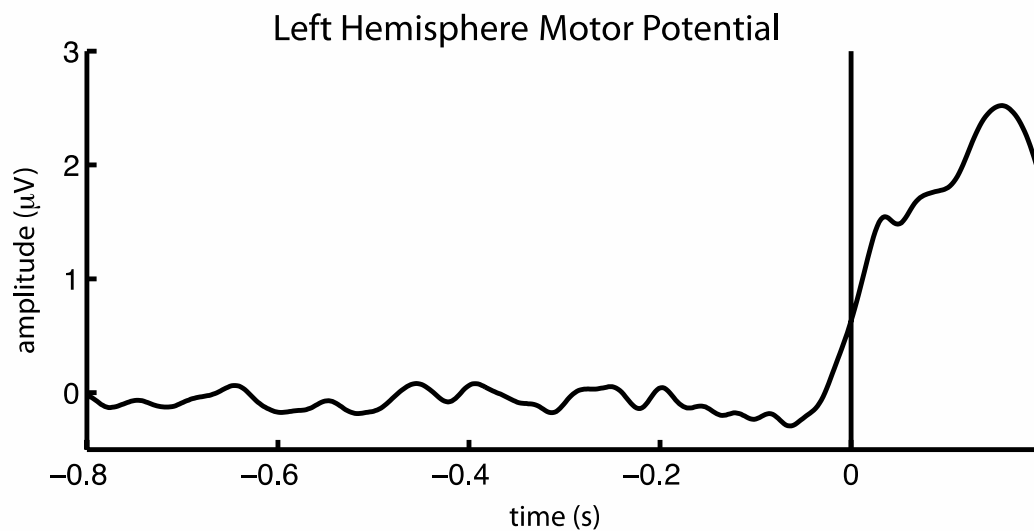
Discrete sensory evidence and supramodal “decision variable” signals that determine perceptual decisions in humans

Redmond G O’Connell, Paul M Dockree & Simon P Kelly

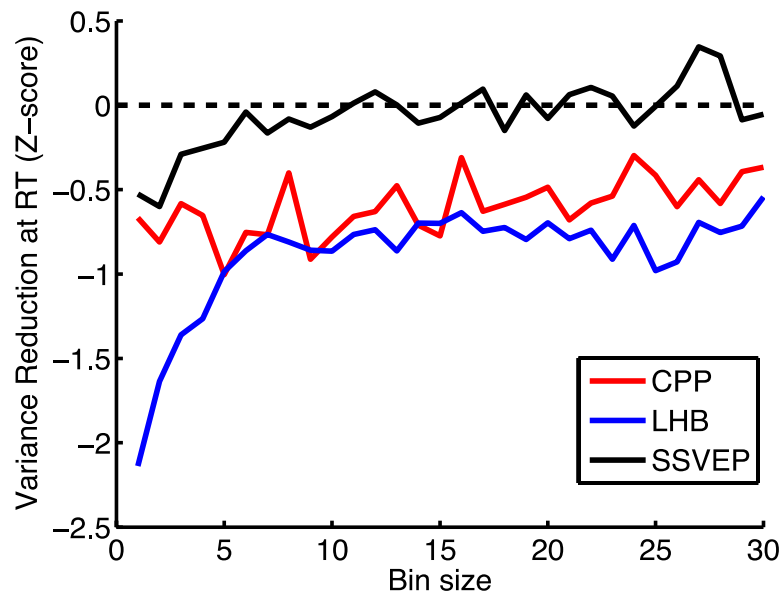


Supplementary Fig. 1. *LHB and CPP signals averaged using a subset of trials narrowly centered on the mode reaction time for each target type. This confirms that that the grand-average effect*

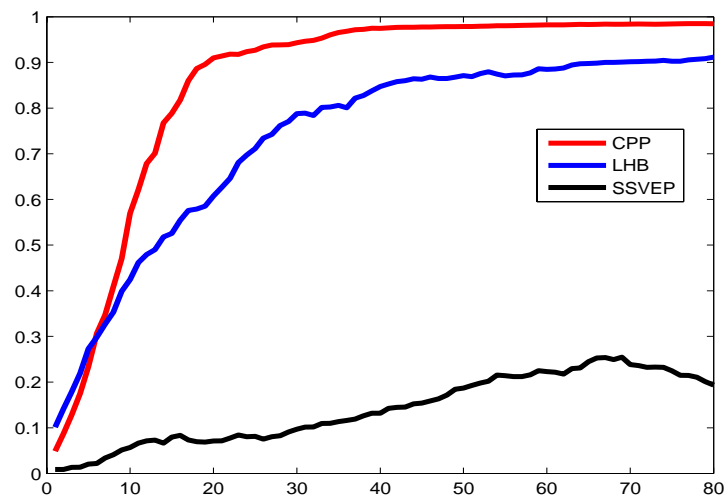
reported in Fig. 3 is a true representation of the single-trial dynamics and not an artifact of bimodal reaction time distribution in the perturbation condition. **(a)** Time-course of the two different target-types (standard and perturbed). **(b)** LHB and CPP traces for the button-press condition. Vertical dotted lines denote the mode reaction time for each target-type.



Supplementary Fig. 2. Grand-average response-aligned ERP waveform at left central electrode sites highlighting the time-course of the motor potential (onset circa -80ms) relative to right hand button-press execution (time-point 0).



Supplementary Fig 3. *Effect of bin-size on amplitude variance at response time relative to a permutation distribution. Whereas the variance reduction of both LHB and SSVEP at response initiation time monotonically weakened with increasing bin size, variance reduction of CPP initially grew and tended to weaken at larger bin sizes. This reflects the fact that the noise distribution of amplitude variance at execution is centered on lower values as larger bin sizes regress toward the mean, and only in the case of the CPP does the advantage of increased SNR with trial averaging within bins outweigh this noise reduction effect to confer an initial benefit to the measured variance reduction.*



Supplementary Fig. 4. *Effect of bin-size on estimate of variance explained (R-squared) in reaction time by CPP, LHB and SSVEP peak latency. The variance explained increased substantially for all three signals but the effect was most prominent for LHB and CPP. Bin-size ceased to influence R-squared after approximately 20 trials for the CPP, 40 trials for LHB and 50 trials for SSVEP.*