

## Supplemental Digital Content 2

### Effects of Propofol-induced Unconsciousness on Permutation Entropy (PeEn)

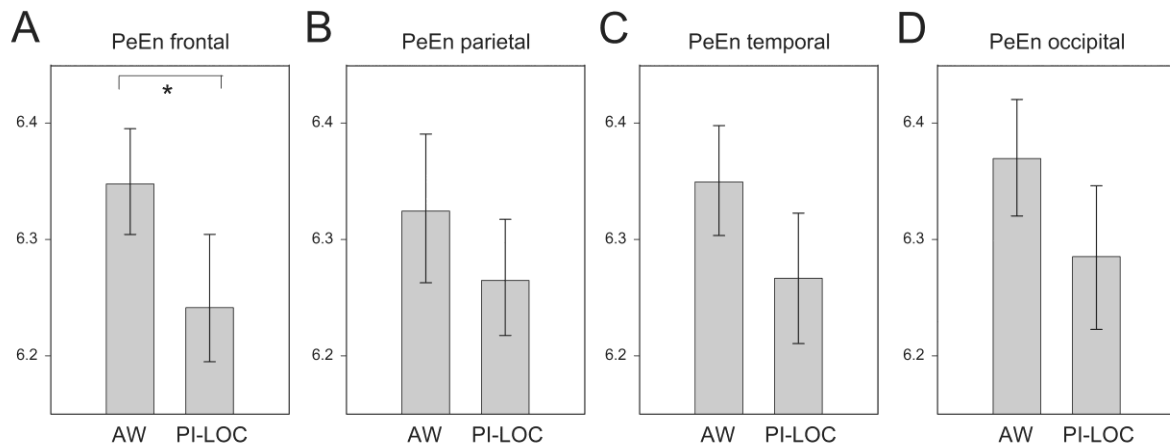


Fig. 1. PeEn at wakefulness (AW) and at propofol-induced unconsciousness (PI-LOC). The plots show values of PeEn in frontal (18 electrodes corresponding to Fp1-FC6 according to the 10-20 scheme; A), parietal (14 electrodes, P11-PO8; B), temporal (12 electrodes, FT1-TP12; C) and occipital (8 electrodes, O9-I12; D) in all 15 subjects (median and interquartile range). \* Significant changes of PeEn between AW and PI-LOC at corrected threshold  $p < 0.05$  (area under the receiver characteristic curve / 95% two-sided percentile bootstrap confidence intervals).

Effects of Propofol-induced Unconsciousness on Symbolic Transfer Entropy ( $STEn_{X \rightarrow Y}$ ,  $STEn_{Y \rightarrow X}$ ) and Directionality Index  $STEn$ .

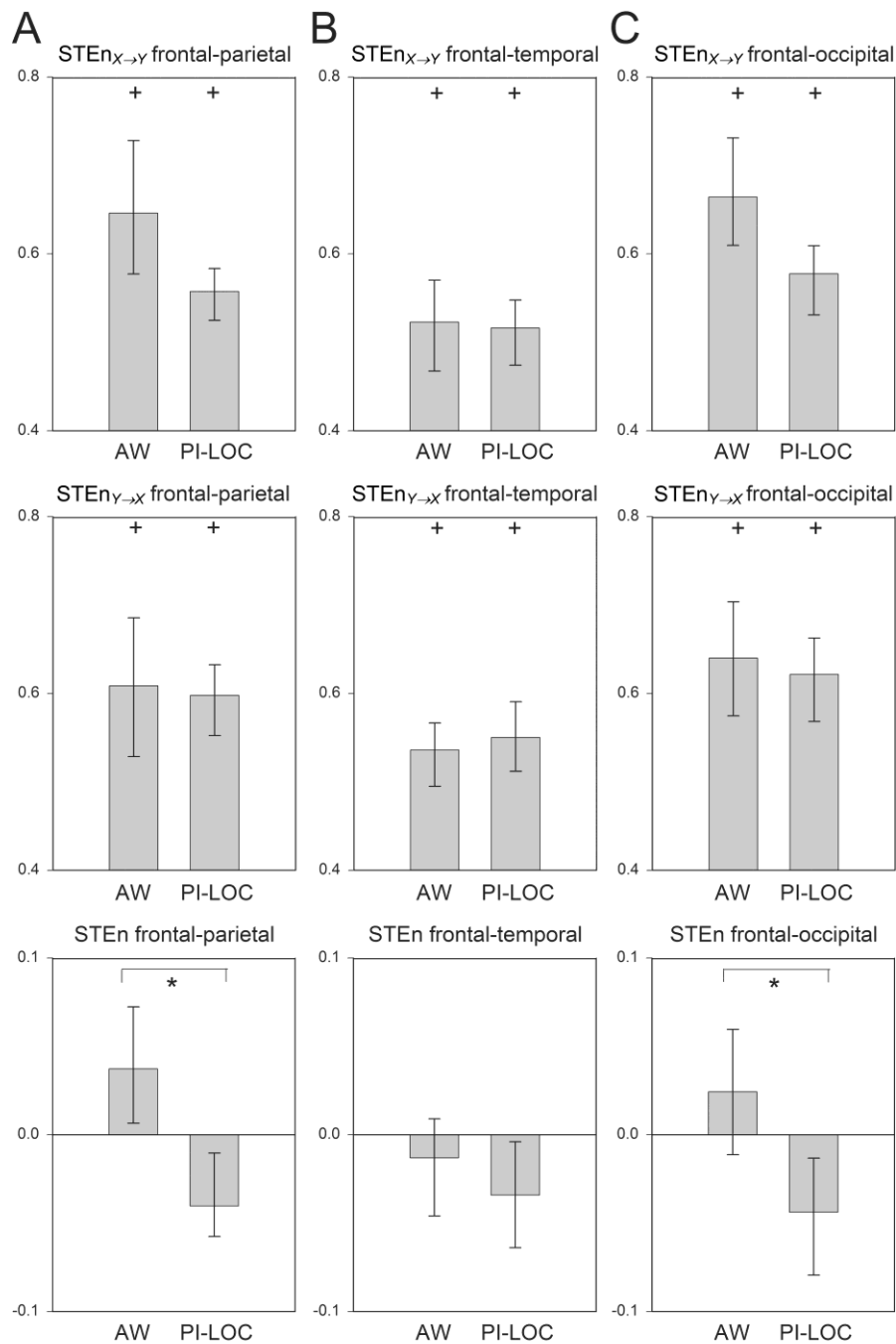


Fig. 2. Symbolic transfer entropy ( $STEn_{X \rightarrow Y}$ ,  $STEn_{Y \rightarrow X}$ ) and directionality index  $STEn$  at wakefulness (AW) and at propofol-induced unconsciousness (PI-LOC). The plots show values of the indices in frontal-parietal (A), frontal-temporal (B) and frontal-occipital (C) electrodes (frontal: 18 electrodes corresponding to Fp1-FC6 according to the 10-20 scheme; parietal: 14 electrodes, P11-

PO8; temporal: 12 electrodes, FT1-TP12; occipital: 8 electrodes, O9-I12) in all 15 subjects (median and interquartile range).  $STEn_{X \rightarrow Y}$  indicates directed interaction from frontal to parietal (A), frontal to temporal (B) and frontal to occipital electrodes (C),  $STEn_{Y \rightarrow X}$  in the reversed direction.  $STEn = STEn_{X \rightarrow Y} - STEn_{Y \rightarrow X}$  indicates the predominant direction ( $STEn > 0$ : feedback,  $STEn < 0$ : feed-forward). \* Significant changes of  $STEn$  between AW and PI-LOC at corrected threshold  $p < 0.05$  (area under the receiver characteristic curve / 95% two-sided percentile bootstrap confidence intervals). +  $STEn_{X \rightarrow Y}, STEn_{Y \rightarrow X} > 0$  at corrected threshold  $p < 0.05$ .