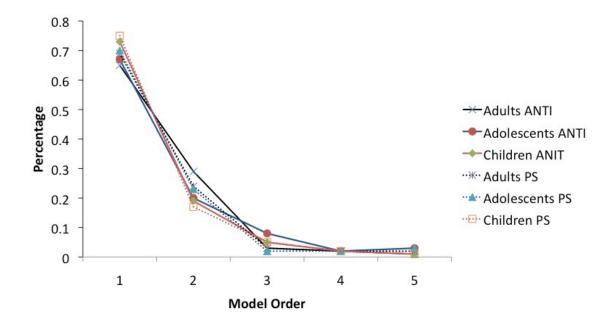
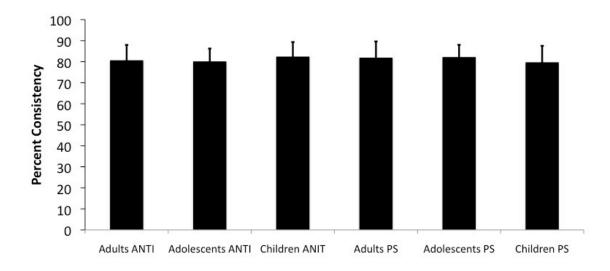
## SUPPLEMENTARY INFORMATION



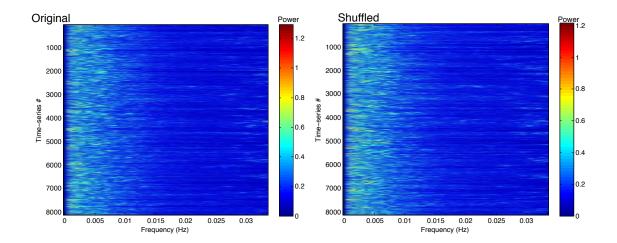
## Supplemental Figure 1

Autoregressive model orders selected by the Bayesian information criterion for each age group and each condition. Consistent with previous reports, the Bayesian information criterion selected low model orders for majority of the autoregressive models (Roebroeck et al., 2005).



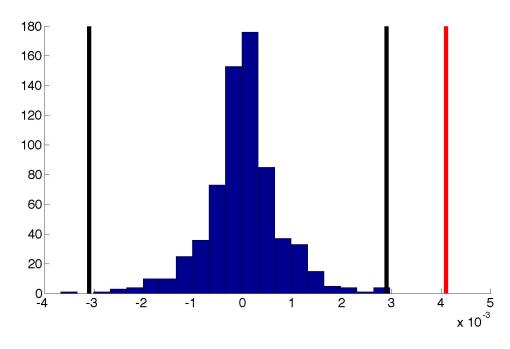
Supplemental Figure 2

Bargraph of mean percent consistency (Ding et al., 2000) for each age group and condition. Error bar represents standard deviation of percent consistency.



## Supplemental Figure 3

Raster plots of time-frequency analysis of original time-serieses and shuffled surrogate time-serieses. Each row on the Y-axis represents one time-series. The original time-series and the surrogate time-series have comparable frequency spectrums.



## Supplemental Figure 4

Example histogram of an empirically derived null distribution and its significance thresholds. The null distribution was generated by the bootstrap procedure described in the methods section. Black lines indicate the upper and lower significance level, determined by a threshold of FDR = 0.05. If the measured DOI from the real time-series (as indicated by the red line in this example) was more extreme than the empirically derived significance threshold, the connection was determined to be significant. In this example figure, the red line is more extreme than the upper significance threshold (the right black line), therefore the connection is determined to be significant.