

with T trials, consistently engage PFC more, indicated by increased BOLD response in fMRI studies, as well as showing correlations of BOLD response between PFC and hippocampus/MTL (Depue et al., 2007, 2010; Anderson et al., 2004).

METHODS

Participants

Fifty-one undergraduates from the University of Colorado at Boulder participated in the experiment for credit, as part of the requirement for undergraduate psychology courses. Fifteen individuals were eliminated for bad EEG data resulting from having fewer than 20 artifact-free trials per condition ($n = 10$; before splitting conditions by first vs. second half of TNT phase), excessively noisy EEG ($n = 4$), and excessive blinking ($n = 1$). Another seven individuals

impedance amplifier (200 M Ω , Net Amps, Electrical Geodesics, Inc., Eugene, OR). The electrodes were adjusted until impedance measurements were less than 50 k Ω .

Electrophysiological Data Processing

A 60-Hz digital notch filter was applied to the continuous EEG recordings to remove electrical line noise before epoching the EEG from 1000 msec before to 1700 msec after each stimulus of the TNT phase. Trials were dis-

corrected $p = .05$, 200–600 msec, 3–8 Hz; Figure 4A–C). An analogous interaction between the NTR and pB trials, similarly indicated a reduction of theta power across frontal electrodes between the first and second half of the subsequently remembered trials (NTR2–NTR1) that was larger than the first versus second half difference for perceptual baseline trials (pB2–pB1; cluster corrected $p = .04$, 200–600 msec, 3–

suppression as assessed by the TNT paradigm (Depue, 2012; Tomlinson, Huber, Rieth, & Davelaar, 2009; Hertel & Calcaterra, 2005) may also be associated with increased theta during NT trials (as our results indicate). This inter-

