

Figure 7-figure supplement 1

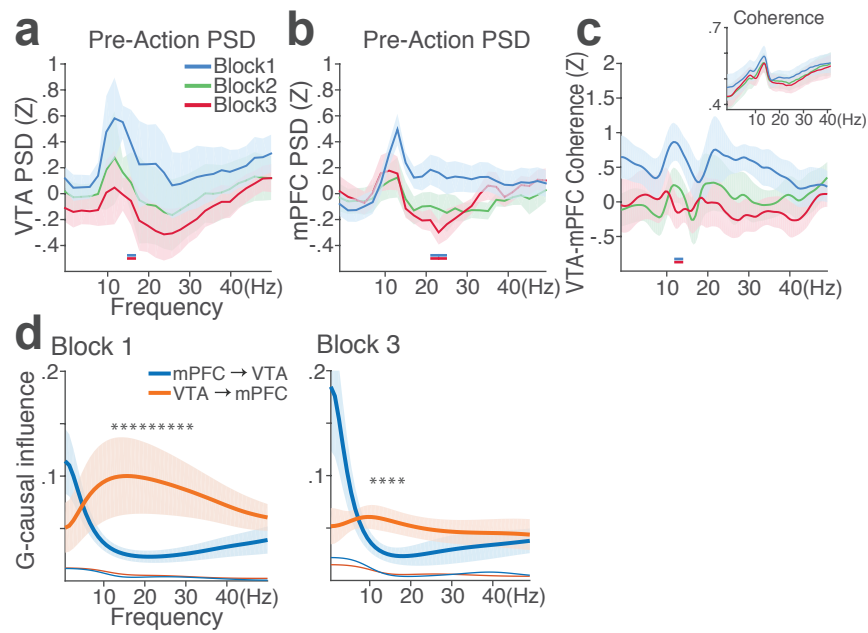


Figure 7-figure supplement 1. mPFC and VTA theta oscillations did not change across blocks in the absence of punishment. (a) Mean \pm s.e.m. (shaded area) normalized VTA PSDs of each block corresponding to the 1-s pre-action epoch. Dual-colored bars below indicate significant pairwise differences at corresponding frequency bins according to post hoc analyses ($p < 0.05$). (b) Normalized mPFC PSDs. (c) Normalized VTA-mPFC LFP coherence of each block in the pre-action epoch. Insets represent non-normalized LFP coherences. (d) Granger-causality, representing mutual influences (directionality) between VTA and mPFC peri-action LFP time series in block 1 (left) & 3 (right). Blue and orange curves represent mPFC-to-VTA and VTA-to-mPFC Granger-causal influences, respectively. Shaded areas indicate s.e.m. Thin colored-lines below indicate upper bounds of confidence intervals ($\alpha = 0.001$) acquired by the random permutation resampling of time bins. An asterisk indicates significant difference between bidirectional Granger-causal influences at the corresponding frequency bin ($p < 0.05$).