

Gerhardsson, A., Åkerstedt, T., Axelsson, J., Fischer, H., Lekander, M., Schwarz, J. Effect of sleep deprivation on emotional working memory. *Journal of Sleep Research*, 2018, e12744. DOI: 10.1111/jsr.12744

Table S1. IAPS normative valence and arousal scores in the sample.

	Negative	Positive	Neutral
N	24	24	48
Valence			
Mean (SD)	2.62 (0.26)	7.74 (0.30)	5.17 (0.46)
Range	2.06–2.99	7.25–8.28	4.13–5.97
Arousal			
Mean (SD)	4.93 (0.57)	4.63 (0.64)	3.84 (0.82)
Range	4.00–6.61	3.73–6.28	2.51–5.51

Note: IAPS: International Affective Picture System. Picture reference number. Negative: 2301, 2750, 2751, 2799, 6300, 9000, 9180, 9181, 9220, 9280, 9291, 9295, 9320, 9342, 9415, 9430, 9435, 9560, 9561, 9830, 9832, 9922, 9925, 9927. Positive: 1440, 1441, 1460, 1463, 1721, 1750, 1811, 1920, 1999, 2091, 2154, 2314, 2345, 2530, 5202, 5210, 5480, 5780, 5829, 5830, 5831, 7502, 7580, 8190. Neutral: 1121, 1350, 1505, 1560, 1616, 1908, 2191, 2597, 5130, 5395, 5535, 5731, 5740, 5900, 7002, 7012, 7016, 7025, 7032, 7035, 7041, 7045, 7061, 7081, 7096, 7100, 7130, 7137, 7161, 7186, 7188, 7205, 7211, 7224, 7236, 7248, 7496, 7497, 7504, 7512, 7513, 7547, 7560, 7600, 7820, 7830, 8325, 9913

Table S2. Mixed effects models for reaction time.

<i>Model including fixed factors: sleep × load × valence (tested against)</i>	<i>df</i>	<i>AIC</i>	<i>BIC</i>	<i>LL</i>	<i>χ²</i>	<i>df_{χ²}</i>	<i>p</i>
1. Random intercept: subject	14	-661.223	-572.517	344.612			
2. Random: subject and picture (1)	15	-671.688	-576.646	350.844	12.465	1	.001
3. Random: subject and picture, slope for load within subject (2)	17	-756.273	-648.558	395.136	88.585	2	<.001
4. Random: subject and picture, slope for valence within subject (2)	20	-668.447	-541.724	354.223	6.759	5	0.239
5a. Random: subject and picture, slope for load within subject and slope for valence within subject (3)	23	-751.817	-606.086	398.909	7.544	6	0.273
5b. Random: subject and picture, slope for load within subject and slope for valence within subject (4)	23	-751.817	-606.086	398.909	89.37	3	<.001

Note: AIC: Akaike's Information Criterion, BIC: Bayesian Information Criterion, LL: Log-Likelihood. Model 3 (bold) best fit. Covariance between the random intercept and random slope was included.

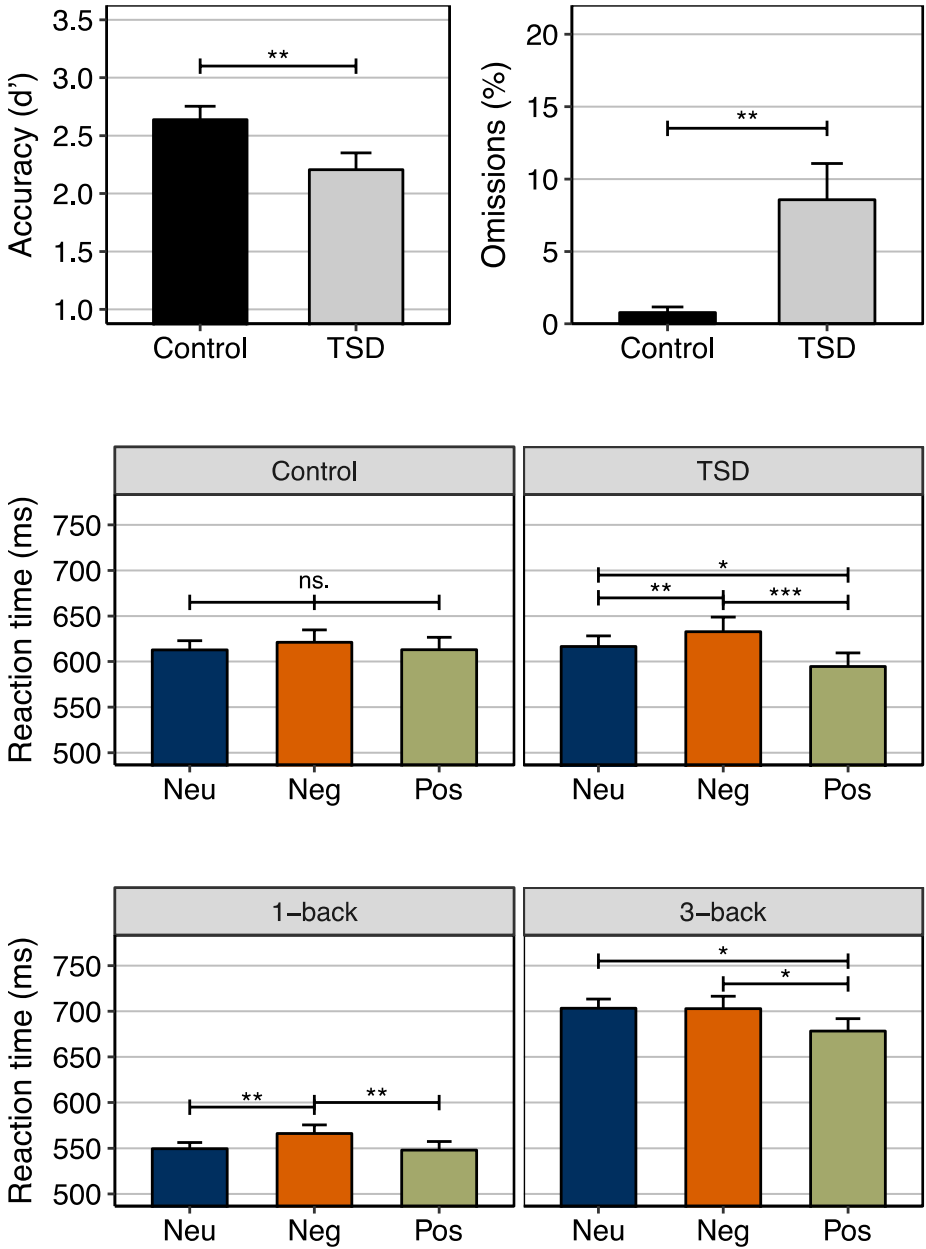


Figure S1. Performance on emotional N-back task. Panels display (A) accuracy, (B) omission percent, and reaction time for (C) each Control and sleep deprivation (TSD) and (D) 1-back and 3-back condition, on neutral (Neu), negative (Neg) and positive (Pos) pictures. * $p < .05$, ** $p < .01$, *** $p < .001$; error bars represent 95% CI.

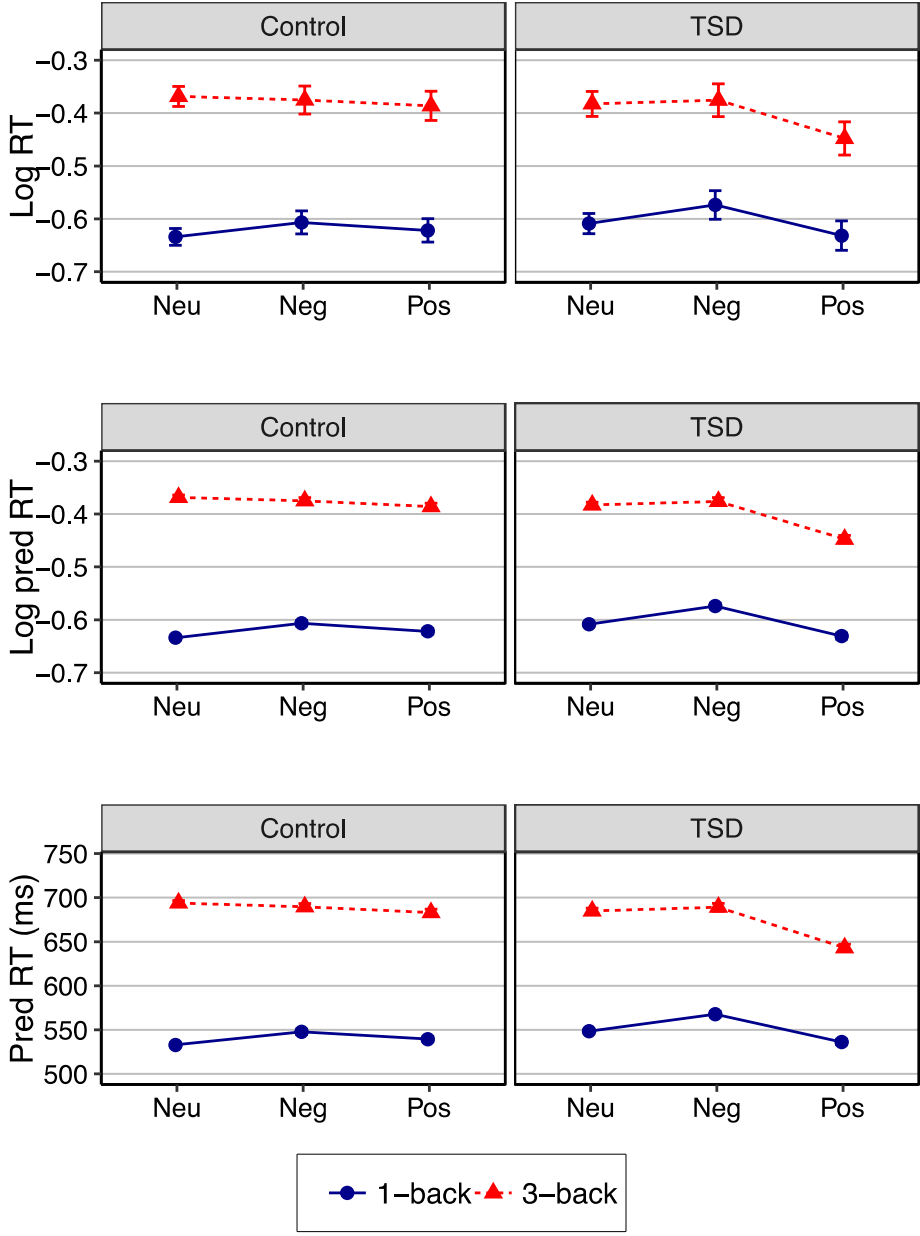


Figure S2. Reaction time on emotional N-back task. Panels display (A) Logged reaction times, (B) logged and predicted from model, and (C) predicted from model reaction times for control and sleep deprivation (TSD) and 1-back (blue) and 3-back (red) condition, on negative (Neg), neutral (Neu) and positive (Pos) pictures. Error bars represent 95% CI.