

Supplementary Materials

Neural Valuation of Anti-Drinking Campaigns and Risky Peer Influence in Daily Life

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Neural Moderation Effects hold when Excluding Covariates

In the main manuscript, we show that our results hold even when controlling for a number of relevant covariates (namely typical baseline drinking behavior, binge drinking attitudes, aggregate conversational valence during the field period, peer presence, and gender). However, this approach raises the question whether the main relationships of interest hold in the absence of these covariates. Thus, we re-estimated all models presented in the main manuscript excluding all covariates. All effects of main interest reported in the main manuscript remain comparable in terms of directionality and magnitude when excluding covariates. Tables S1 and S2 report results paralleling those of Table 1 and 2 in the main manuscript, respectively. Table S3 presents results of neural moderation analyses using the cognitive regulation region of interest.

Table S1
Unstandardized fixed effect estimates

Predictor	Conversational influence model OV: Drinking behavior N = 52	Hangover model OV: Conversational valence N = 51	Moderation by message-consistent regulation success OV: Drinking Behavior N = 51	Moderation by message-derogating regulation success OV: Drinking Behavior N = 51
Lagged conversational valence (CV)	0.10 [0.04; 0.16], p = .001	---	0.10 [0.04; 0.16], p = .002	0.09 [0.03; 0.15], p = .003
Lagged drinking behavior	---	-0.26 [-0.46; -0.06], p = .010	---	---
Neural Valuation activity (NV)	---	---	-0.15 [-2.01; 1.70], p = .877	1.50 [-0.56; 3.57], p = .163
Interaction CV x NV	---	---	-0.64 ¹ [-1.31; 0.02], p = .056	0.61 ¹ [-0.08; 1.30], p = .085

Note. Square brackets show 95% Confidence intervals. OV = outcome variable, --- effects not included in the model, Neural valuation activity represents average activity estimates in clusters within ventral striatum and ventromedial prefrontal cortex. All variables are grand mean centered. ¹Effects are primarily driven by ventral striatal rather than ventromedial prefrontal cortex activity (see Table S2).

Table S2
Unstandardized fixed effects on drinking behavior

Predictor	VMPFC		VS	
	Moderation by message-consistent regulation success	Moderation by message-derogating regulation success	Moderation by message-consistent regulation success	Moderation by message-derogating regulation success
Lagged conversational valence (CV)	0.10 [0.04; 0.16], p = .001	0.10 [0.03; 0.16], p = .002	0.09 [0.03; 0.15], p = .003	0.09 [0.03; 0.15], p = .002
Neural Valuation activity (NV)	-0.24 [-1.59; 1.11], p = .730	0.71 [-0.82; 2.24], p = .369	0.19 [-1.09; 2.26], p = .863	2.65 [0.21; 5.10], p = .040
Interaction CV x NV	-0.38 [-0.90; 0.14], p = .146	0.33 [-0.19; 0.84], p = .217	-0.66 [-1.32; -0.002], p = .047	1.02 [0.17; 1.88], p = .020

Note. 95% Confidence intervals are in square brackets. ROI = Region of Interest, VMPFC = ventromedial prefrontal cortex, VS = ventral striatum, --- denotes effects not included in the model. All variables are grand mean centered. N = 51

Table S3
Unstandardized fixed effects on drinking behavior

Predictor	Cognitive Regulation ROI	
	Moderation by message-consistent regulation success	Moderation by message-derogating regulation success
Lagged conversational valence (CV)	0.10 [0.04; 0.16], p = .001	0.10 [0.04; 0.16], p = .002
Neural Valuation activity (NV)	0.10 [-2.16; 2.35], p = .934	1.33 [-0.91; 3.57], p = .253
Interaction CV x NV	-0.74 [-1.78; 0.28], p = .152	0.56 [-0.26; 1.38], p = .183

Note. 95% Confidence intervals are in square brackets. ROI = Region of Interest, VMPFC = ventromedial prefrontal cortex, VS = ventral striatum, --- denotes effects not included in the model. All variables are grand mean centered. N = 51