

Emotion-related impulsivity moderates the cognitive interference effect of smartphone availability on working memory

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As indicated by the AIC selection method (table S1), the model with the condition \times positive urgency \times setsize interaction term (M5) best fitted the data (Table S1).

Models	Fixed Effects	AIC	Akaike weight
M0	~ 1	619.74	<.001
M1	Condition + SPAI+Setsize	340.58	0.15
M2	Condition +PU+SPAI+Setsize	340.96	0.13
M3	Condition + SPAI+PU*Setsize	341.88	0.08
M4	PU+Spai+Condition*Setsize	343.96	0.03
M5	SPAI+Condition+PU+ PU*Setsize+ Condition*Setsize + Condition*Setsize*PU	337.89	0.60

PU = positive urgency; Set Sizes = two, three, four squares; SPAI = Smartphone Addiction Inventory

Table S1. The AIC model comparison analysis

With regard to M5 (table S2), there was an interactive effect of condition \times positive urgency \times setsize ($\chi^2(4) = 11.53, p = 0.02$).

Coeffic	χ^2	df	<i>P</i> values
Condition	4.82	2	.08
Positive Urgency	1.62	1	.20
Spai	0.68	1	.40
SetSize	550.12	2	<.001
Condition X PositiveUrgency	6.80	2	.03
Condition X SetSize	5.17	4	.26
PositiveUrgency X SetSize	3.22	2	.20
ConditionXPositiveUrgencyXSetSize	11.53	4	.02

Table S2. M5 model

Figure S1. Interaction plot for positive urgency, Set Sizes (2, 3, 4 squares) and condition in relation to visual working memory capacity. Confidence intervals of 95% are presented in blue/pink/green

