Supplemental Materials

The experimental tasks used in the current report can be found online at:
Experiment 1- www.cogfog.com/CM/SDA/
Experiment 2- www.cogfog.com/CM/SDA2/

The OSpan task used in Experiment 1 can be found online at
www.cogfog.com/CM/OSpan/

Table S1

Recall probability as a function of study condition and list in Experiment 1

Condition	Collection	List 1	List 2	List 3	List 4	List 5	List 6	Average
Full attention	Original	.34 (.12)	.40 (.11)	.40 (.12)	.39 (.12)	.40 (.12)	.40 (.11)	.39 (.18)
	Replication	.34 (.16)	.35 (.15)	.40 (.17)	.42 (.13)	.41 (.16)	.40 (.14)	.39 (.22)
Divided attention	Original	.21 (.09)	.26 (.09)	.30 (.14)	.30 (.10)	.34 (.12)	.30 (.09)	.29 (.18)
	Replication	.15 (.10)	.21 (.09)	.25 (.09)	.28 (.10)	.25 (.07)	.30 (.12)	.24 (.22)
Familiar music	Original	.31 (.13)	.37 (.11)	.33 (.13)	.33 (.12)	.37 (1.9)	.36 (.16)	.35 (.18)
	Replication	.34 (.15)	.32 (.09)	.38 (.20)	.37 (.18)	.40 (.17)	.32 (.17)	.36 (.22)
Unfamiliar music	Original	.30 (.13)	.35 (.13)	.35 (.14)	.36 (.13)	.36 (.14)	.36 (.14)	.37 (.18)
	Replication	.28 (.16)	.31 (.14)	.35 (.16)	.37 (.16)	.36 (.16)	.35 (.16)	.37 (.22)

Note. Standard deviations are presented in parentheses.

Table S2

Two-level hierarchical generalized linear model of recall performance predicted by Item Value, List, and Study Condition in Experiment 1

Fixed effects	Original collection	Replication
Intercept (β_{00})	-0.53***	-0.51***
Predictors of intercept		
Cond1: Full attention v. Divided attention (β_{01})	-0.51***	-0.73***
Cond2: Full attention v. Familiar music (β_{02})	-0.22	-0.18
Cond3: Full attention v. Unfamiliar music (β_{03})	-0.07	-0.07
Value (β_{10})	0.20***	0.12***
Predictors of value		
Cond1: FA v. DA (β_{11})	-0.05	-0.06
Cond2: FA v. FM (β_{12})	-0.02	0.05
Cond3: FA v. UM (β_{13})	-0.05	0.01
List (β_{20})	0.02	0.05
Predictors of list		
Cond1: FA v. DA (β_{21})	0.05	0.05
Cond2: FA v. FM (β_{22})	0.003	-0.05
Cond3: FA v. UM (β_{23})	0.01	0.01
List x Value (β_{30})	0.03**	0.02*
Predictors of list x value		
Cond1: FA v. DA (β_{31})	-0.0001	0.01
Cond2: FA v. FM (β_{32})	-0.01	-0.004
Cond3: FA v. UM (β_{33})	-0.02	0.001
Random effects	**Variance**	**Variance**
Intercept (person-level) (r_0)	0.19***	0.24***
Value (r_1)	0.01***	0.01**
List (r_2)	0.03***	0.03***
List x Value (r_3)	0.001***	0.001**

Note. The dependent variable is recall performance coded as 0 (*not recalled*) or 1 (*recalled*). Logit link function was used to address the binary dependent variable. Level 1 models were of the form $\eta_{ij} = \pi_{0j} + \pi_{1j}$ (Value) $+ \pi_{2j}$ (List) $+ \pi_{3j}$ (List x Value). Level 2 models were of the form $\pi_{0j} = \beta_{00} + \beta_{01}$ (Cond1) $+ \beta_{02}$ (Cond2) $+ \beta_{03}$ (Cond3) $+ r_{0j}, \pi_{1j} = \beta_{10} + \beta_{11}$ (Cond1) $+ \beta_{12}$ (Cond2) $+ \beta_{13}$ (Cond3) $+ r_{1j}, \pi_{2j} = \beta_{20} + \beta_{21}$ (Cond1) $+ \beta_{22}$ (Cond2) $+ \beta_{23}$ (Cond3) $+ r_{2j}, \pi_{3j} = \beta_{30} + \beta_{31}$ (Cond1) $+ \beta_{32}$ (Cond2) $+ \beta_{33}$ (Cond3) $+ r_{3j}$. "FA" refers to the Full attention condition; "DA" to Divided attention; "FM" to Familiar music; and "UM" to Unfamiliar music.
*$p < .05$ **$p < .01$ ***$p < .001$

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Table S3

Two-level hierarchical generalized linear model of tone detection accuracy and reaction time as predicted by Item Value, List, and Study Condition in Experiment 2

Fixed effects	**Outcome: Tone detection accuracy**	**Outcome: Tone detection reaction time (sec)**
Intercept (β_{00})	0.78***	0.80***
Predictors of intercept		
Cond1: Tone monitoring v. Paired tones (β_{01})	-0.01	0.21***
Cond2: Tone monitoring v. 1back (β_{02})	-0.10*	0.11**
Value (β_{10})	-0.004	0.002
Predictors of value		
Cond1: TM v. PT (β_{11})	0.002	-0.001
Cond2: TM v. 1back (β_{12})	-0.0005	-0.004
List (β_{20})	0.003	-0.02**
Predictors of list		
Cond1: TM v. PT (β_{21})	0.03	0.01
Cond2: TM v. 1back (β_{22})	0.02	-0.01
List x Value (β_{30})	-0.001	0.003**
Predictors of list x value		
Cond1: TM v. PT (β_{31})	0.001	< 0.0001
Cond2: TM v. 1back (β_{32})	-0.0003	-0.002
Random effects	**Variance**	**Variance**
Intercept (person-level) (r_0)	0.03***	0.01***
Value (r_1)	< 0.0001	< 0.0001
List (r_2)	0.002***	0.0004***
List x Value (r_3)	< 0.0001	< 0.0001

Note. Level 1 models were of the form $\eta_{ij} = \pi_{0j} + \pi_{1j}$ (Value) $+ \pi_{2j}$ (List) $+ \pi_{3j}$ (List x Value). Level 2 models were of the form $\pi_{0j} = \beta_{00} + \beta_{01}$ (Cond1) $+ \beta_{02}$ (Cond2) $+ r_{0j}$, $\pi_{1j} = \beta_{10} + \beta_{11}$ (Cond1) $+ \beta_{12}$ (Cond2) $+ r_{1j}$, $\pi_{2j} = \beta_{20} + \beta_{21}$ (Cond1) $+ \beta_{22}$ (Cond2) $+ r_{2j}$, $\pi_{3j} = \beta_{30} + \beta_{31}$ (Cond1) $+ \beta_{32}$ (Cond2) $+ r_{3j}$.
"TM" refers to the Tone monitoring condition and "PT" to Paired tones.
*$p < .05$ **$p < .01$ ***$p < .001$