

Table S1

Variables Table. Levels and definitions of experiment variables and measures.

	Variable Name	Definition
Manipulations	<i>Music Exposure Condition</i>	Day 1 Music Exposure Conditions: FreeTap, AudTD, VisTD, Unfamiliar (exp. 1-2); FreeTap, SRT, Unfamiliar (exp. 3). FreeTap condition coded as reference levels
	<i>Experiment Day</i>	Days of the experiments: Day 1 and Day 2. Day 1 coded as reference level
	<i>Trial Type</i>	Target types in the Day 1 SRT-type task: Learned, Random (exp. 3). Learned condition coded as reference level
Attention	<i>Hit Rate</i>	number of auditory or visual deviants detected out of the total number of deviants presented within a run
	<i>False Alarm Number</i>	number of responses made to non-deviants in the auditory or visual target detection tasks within a run
INMI	<i>Day 1 INMI</i>	1=reported INMI episode for a loop during Day 1; 0=no INMI reported for loop
	<i>Day 1 INMI Frequency</i>	frequency of INMI episodes for a loop during Day 1; 6-point scale: Not at all - 81-100% of the time.
	<i>Day 1 INMI Vividness</i>	5-point scale: Not at all - As vivid as actual sound
	<i>Day 2 INMI</i>	1=reported INMI episode for a loop during Day 2; 0=no INMI reported for loop
	<i>Day 2 INMI Frequency</i>	6-point scale: Not at all - On at least five days.
	<i>Day 2 INMI Vividness</i>	5-point scale: Not at all - As vivid as actual sound
	<i>Day 2 INMI Duration</i>	6-point scale: Not at all - More than 3 hours
Music Memory	<i>Hit</i>	1=correct response to target trial
	<i>False Alarm</i>	1=incorrect response to foil trial
	<i>Day 1 Loop d'</i>	performance measure of correct responses to targets and false alarms
	<i>Day 2 Loop d'</i>	d' reflecting performance in MSIR for each loop
	$\Delta d'$	For a given loop, the difference between Day 2 d' and Day 1 d'
	<i>Proportion Retained</i>	For a given loop, the proportion of correct Day 1 responses (i.e., hits and correct rejections) that were answered correctly on Day 2
	<i>Proportion Gained</i>	For a given loop, proportion of incorrect Day 1 responses (i.e., misses and false alarms) that were answered correctly on Day 2
	<i>Day 1 Loop Confidence</i>	Confidence in trial response, averaged across targets and foils; 5-point scale: Not at all - Very Strongly confident
	<i>Day 2 Loop Confidence</i>	Confidence in trial response, averaged across targets and foils; 5-point scale: Not at all - Very Strongly confident
	Δ Confidence	For a given loop, the difference between Day 2 Confidence and Day 1 Confidence

Table S2

Analyses Table. Equations show the structure of the lme4 package model statements used in each analysis.

Figure	Table	Exp.	Model Type	Link Function	Conditions Included (#obs.)	Equation
-	-	1, 2	LMM	-	AudTD, VisTD (62, -	Hit Rate ~ Music Exposure Condition + (1 Participant)
-	-	1, 2	GLMM	Poisson	AudTD, VisTD (62, -	False Alarm Number ~ Music Exposure Condition + (1 Participant)
3	-	1, 2, 3	LMM	-	All conditions (744, 720, 540)	Loop d' ~ Music Exposure Condition * Day + (1 Participant)
S2	-	1, 2, 3	LMM	-	All conditions (744, 720, 540)	Loop Confidence ~ Music Exposure Condition * Day + (1 Participant)
-	-	1, 2, 3	LMM	-	All conditions (177, 163, 126)	Day 1 INMI Frequency ~ Day 1 INMI Vividness + 1 (1 Participant)
-	-	1, 2, 3	LMM	-	All conditions (78, 91, 74)	Day 2 INMI Frequency ~ Day 2 INMI Vividness + Day 2 INMI Duration + (1 Participant)
4	-	1, 2, 3	GLMM	Logit	All conditions (744, 720, 540)	INMI ~ Music Exposure Condition * Day + (1 Participant)
-	8	1, 2, 3	GLMM	Logit	All conditions (372, 360, 270)	Day 1 INMI ~ Day 1 Loop d' + 1 (1 Participant)
-	8	1, 2, 3	GLMM	Logit	All conditions (372, 360, 270)	Day 1 INMI ~ Day 1 Loop d' + Day 1 INMI Frequency 1 (1 Participant)
-	8	1, 2, 3	LMM	-	All conditions (372, 360, 270)	Day 2 Loop d' ~ Day 1 Loop d' + Day 1 INMI Frequency + Day 2 INMI Frequency + 1 (1 Participant)
5A	9	1, 2, 3	LMM	-	All conditions (372, 360, 270)	$\Delta d' \sim \text{Day 1 Loop d' + Day 1 INMI Frequency + Day 2 INMI Frequency + 1 (1 Participant)}$
-	-	1, 2, 3	LMM	-	All conditions (372, 360, 270)	$\Delta \text{Confidence} \sim \text{Day 1 Loop d' + Day 1 INMI Frequency + Day 2 INMI Frequency + 1 (1 Participant)}$
5B	9	1, 2, 3	LMM	-	All conditions (371, 357, 268)	Prop Retained ~ Day 1 Loop d' + Day 1 INMI Frequency + Day 2 INMI Frequency + 1 (1 Participant)
5C	9	1, 2, 3	LMM	-	All conditions (324, 313, 248)	Prop Gained ~ Day 1 Loop d' + Day 1 INMI Frequency + Day 2 INMI Frequency + 1 (1 Participant)
-	-	3	LMM	-	- SRT (220)	Response Time ~ Trial Type + (1 Participant)

Table S3

Effects of Experiment Day and Music Exposure condition on MSIR confidence ratings

Contrast	Exp. 1		Exp. 2		Exp. 3	
	coefficient	95% CI	coefficient	95% CI	coefficient	95% CI
Day2-Day1	-0.02	[-0.09, 0.05]	-0.06	[-0.13, 0.01]	-0.07	[-0.15, 0.01]
TAP-audarg	0.05	[-0.05, 0.15]	0.07	[-0.03, 0.17]	-	-
TAP-vistarg	0.11	[-0.01, 0.21]	0.09	[-0.01, 0.19]	-	-
TAP-SRT	-	-	-	-	0.19*	[0.09, 0.28]
TAP-UNF	0.23*	[0.14, 0.34]	0.27*	[0.18, 0.37]	0.43*	[0.33, 0.53]
audtarg-vistarg	0.06	[-0.05, 0.16]	0.02	[-0.07, 0.11]	-	-
audtarg-UNF	0.19*	[0.09, 0.28]	0.20*	[0.11, 0.30]	-	-
vistarg-UNF	0.13*	[0.03, 0.23]	0.18*	[0.09, 0.28]	-	-
SRT-UNF	-	-	-	-	0.24*	[0.15, 0.35]

Note: Values are bootstrapped effect sizes and 95% CIs. Contrasts from all models reflect the difference between estimated marginal means in units of the dependent variable. Asterisks denote significant effects. Condition labels: TAP (free-form tapping); audarg (auditory target detection); vistarg (visual target detection); SRT (serial reaction time); UNF (Unfamiliar).

Table S4

INMI and MSIR Pairwise Correlations. Mean, standard deviation, and Pearson's correlation coefficients for all dependent measures examined in Tables 8 and 9.

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
Experiment 1									
1. Day 1 INMI Freq.	372	0.82	1.11	-					
2. Day 2 INMI Freq.	372	0.27	0.59	0.33***	-				
3. Day 1 Loop d'	372	0.89	0.95	0.09	0.16***	-			
4. Day 2 Loop d'	372	1.14	0.94	0.11*	0.25***	0.41***	-		
5. Δd'	372	0.25	1.03	0.02	0.08	-0.55***	0.54***	-	
6. Prop. Retained	371	0.81	0.20	0.12*	0.17***	0.15**	0.69***	0.51***	-
7. Prop. Gained	324	0.57	0.37	0.04	0.16**	0.09	0.61***	0.50***	0.05
8. Day 1 Loop Conf.	372	2.64	0.62	0.30***	0.20***	0.35***	0.27***	-0.07	0.26***
9. Day 2 Loop Conf.	372	2.62	0.73	0.29***	0.25***	0.29***	0.36***	0.07	0.31***
10. ΔConfidence	372	0.25	1.03	0.06	0.12*	-0.01	0.22***	0.21***	0.15**
Experiment 2									
1. Day 1 INMI Freq.	360	0.74	1.02	-					
2. Day 2 INMI Freq.	360	0.33	0.63	0.40***	-				
3. Day 1 Loop d'	360	0.48	0.92	0.02	0.04	-			
4. Day 2 Loop d'	360	0.58	0.94	0.09	0.15**	0.35***	-		
5. Δd'	360	0.11	1.07	0.06	0.09	-0.56***	0.59***	-	
6. Prop. Retained	357	0.73	0.29	0.14*	0.12*	0.06	0.53***	0.41***	-
7. Prop. Gained	313	0.51	0.38	-0.01	0.14*	0.02	0.47***	0.39***	0.001
8. Day 1 Loop Conf.	360	2.45	0.69	0.12*	0.15**	0.14**	0.21***	0.06	0.25***
9. Day 2 Loop Conf.	360	2.39	0.73	0.16**	0.19***	0.10	0.32***	0.20***	0.35***
10. ΔConfidence	360	0.10	1.06	0.07	0.08	-0.05	0.19***	0.21***	0.19***
Experiment 3									
1. Day 1 INMI Freq.	270	0.69	0.92	-					
2. Day 2 INMI Freq.	270	0.34	0.63	0.43***	-				
3. Day 1 Loop d'	270	0.55	0.97	0.17**	0.08	-			
4. Day 2 Loop d'	270	0.64	1.05	0.22***	0.14*	0.41***	-		
5. Δd'	270	0.09	1.10	0.06	0.06	-0.49***	0.59***	-	
6. Prop. Retained	268	0.73	0.26	0.17**	0.08	0.20***	0.72***	0.52***	-
7. Prop. Gained	248	0.48	0.37	0.06	0.15*	0.11	0.59***	0.46***	0.13*
8. Day 1 Loop Conf.	270	2.21	0.75	0.32***	0.27***	0.33***	0.27***	-0.04	0.19**
9. Day 2 Loop Conf.	270	2.14	0.79	0.23***	0.20**	0.25***	0.34***	0.11	0.25***
10. ΔConfidence	270	0.09	1.10	-0.10	-0.08	-0.10	0.13*	0.21**	0.10

* $p < .05$. ** $p < .01$. *** $p < .001$ (not corrected for multiple comparisons)

Table S4 Continued

INMI and MSIR Pairwise Correlations. Mean, standard deviation, and Pearson's correlation coefficients for all dependent measures examined in Tables 8 and 9.

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	7	8	9
Experiment 1						
1. Day 1 INMI Freq.	372	0.82	1.11			
2. Day 2 INMI Freq.	372	0.27	0.59			
3. Day 1 Loop <i>d'</i>	372	0.89	0.95			
4. Day 2 Loop <i>d'</i>	372	1.14	0.94			
5. $\Delta d'$	372	0.25	1.03			
6. Prop. Retained	371	0.81	0.20			
7. Prop. Gained	324	0.57	0.37	-		
8. Day 1 Loop Conf.	372	2.64	0.62	-0.01	-	
9. Day 2 Loop Conf.	372	2.62	0.73	0.07	0.79***	-
10. Δ Confidence	372	0.25	1.03	0.13*	-0.10*	0.53***
Experiment 2						
1. Day 1 INMI Freq.	360	0.74	1.02			
2. Day 2 INMI Freq.	360	0.33	0.63			
3. Day 1 Loop <i>d'</i>	360	0.48	0.92			
4. Day 2 Loop <i>d'</i>	360	0.58	0.94			
5. $\Delta d'$	360	0.11	1.07			
6. Prop. Retained	357	0.73	0.29			
7. Prop. Gained	313	0.51	0.38	-		
8. Day 1 Loop Conf.	360	2.45	0.69	-0.02	-	
9. Day 2 Loop Conf.	360	2.39	0.73	0.05	0.79***	-
10. Δ Confidence	360	0.10	1.06	0.10	-0.25***	0.41***
Experiment 3						
1. Day 1 INMI Freq.	270	0.69	0.92			
2. Day 2 INMI Freq.	270	0.34	0.63			
3. Day 1 Loop <i>d'</i>	270	0.55	0.97			
4. Day 2 Loop <i>d'</i>	270	0.64	1.05			
5. $\Delta d'$	270	0.09	1.10			
6. Prop. Retained	268	0.73	0.26			
7. Prop. Gained	248	0.48	0.37	-		
8. Day 1 Loop Conf.	270	2.21	0.75	0.01	-	
9. Day 2 Loop Conf.	270	2.14	0.79	0.10	0.77***	-
10. Δ Confidence	270	0.09	1.10	0.14*	-0.27***	0.41***

* $p < .05$. ** $p < .01$. *** $p < .001$ (not corrected for multiple comparisons)

Figure S1

MSIR trial structure. For the rows showing the target and foil trial audio, the colored region indicates the corresponding 2-second section of the original loop audio in the top row that was spliced into the test audio following the 2-second silence.

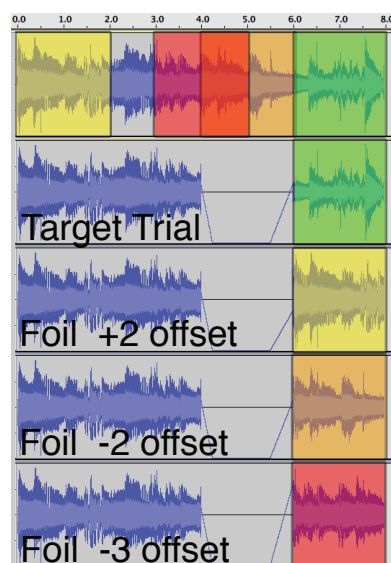
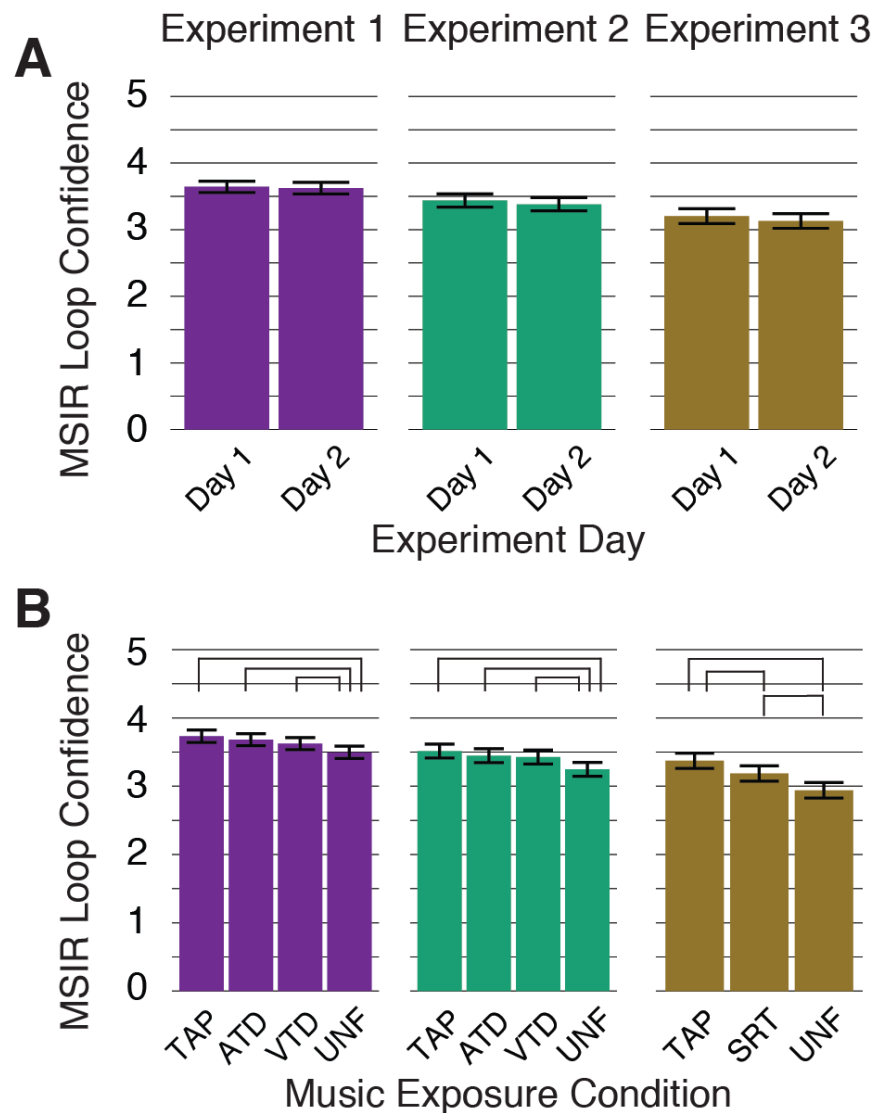


Figure S2

Music memory confidence. (A) Loop-level confidence ratings from the MSIR task on each experiment day (main effect of Experiment Day). (B) Loop-level confidence ratings from the MSIR task based on Music Exposure Condition (main effect of Music Exposure Condition). All error bars represent the SEM of the bootstrapped marginal estimates. Black lines spanning pairs of conditions indicate significant differences. Condition labels: TAP (free-form tapping); ATD (auditory target detection); VTD (visual target detection); SRT (serial reaction time); UNF (Unfamiliar). See the online article for the color version of this figure. In this and all subsequent figures, Experiment 1 results are presented in purple, Experiment 2 in cyan, and Experiment 3 in gold.



Audio S1

Example music loop used in the study. Note, all loops used in the study are available at <https://osf.io/75es9/>

Video S1

MSIR task structure.