

Exposure to arousal-inducing sounds facilitates visual search

Erkin Asutay^{1,*}, Daniel Västfjäll^{1,2}

1. Department of Behavioral Sciences and Learning, Linköping University, Linköping, SE-58183, Sweden.

2. Decision Research, Eugene, OR, 97401, USA

* Corresponding author. Tel. +4613281844, email: erkin.asutay@liu.se

Supplemental Information

Supplemental Table 1. Affective reactions to auditory stimuli in Experiment 1.

Stimulus	Mean valence (95% CI)		Mean arousal (95% CI)	
	Front	Back	Front	Back
Growling dog	-.31 (.13)	-.25 (.14)	.33 (.14)	.33 (.15)
Fire alarm	-.47 (.11)	-.43 (.12)	.45 (.14)	.46 (.14)
Clucking hen	.17 (.17)	.12 (.16)	.06 (.18)	-.04 (.17)
Microwave oven	-.06 (.14)	.07 (.13)	.01 (.13)	-.05 (.16)

Note: Valence and arousal ratings are scaled between -1 and +1. CI=confidence interval.

Supplemental Table 2. Mean valence and arousal ratings for each auditory stimulus, together with the number of times of each sound classified in respective stimulus arousal categories. Valence and arousal ratings are scaled between -1 (negative-valence or low-arousal) and +1 (positive-valence or high-arousal). The numbers in parentheses represent standard error of the means. The correlation between valence and arousal ratings was assessed after pooling the data over participants and stimuli. Valence and arousal ratings were negatively correlated ($r=-0.45$, $p<.001$, $N=624$).

Stimulus Description	Valence	Arousal	Low arousal count	Mid arousal count	High arousal count
Boiling water	-0.03 (.08)	-0.02 (.07)	15	7	4
Buzzer	-0.38 (.08)	0.41 (.08)	1	6	19
Clucking hen	0.16 (.07)	0.01 (.07)	12	10	4
Compressed air	-0.33 (.08)	0.22 (.07)	7	9	10
Cracking door	-0.27 (.06)	0.13 (.09)	10	9	7
Crushing a tin can	-0.02 (.06)	0.14 (.05)	6	15	5
Crying baby	-0.42 (.08)	0.35 (.08)	2	9	15
Cuckoo clock	0.03 (.07)	0.24 (.05)	3	12	11
Dentist drill	-0.53 (.07)	0.33 (.06)	3	12	11
Female scream	-0.63 (.09)	0.43 (.09)	3	3	20
Female yawn	0.09 (.06)	-0.33 (.09)	19	3	4
Fingernails on blackboard	-0.49 (.07)	0.27 (.06)	4	12	10
Fire alarm	-0.26 (.08)	0.43 (.09)	4	4	18
Growling dog	-0.27 (.07)	0.27 (.09)	4	8	14
Helicopter	-0.01 (.08)	0.00 (.08)	14	9	3
Hissing cougar	-0.26 (.07)	0.23 (.07)	5	11	10
Horse hooves	0.33 (.06)	0.05 (.06)	13	7	6
Jackhammer	-0.33 (.07)	0.07 (.07)	12	7	7
Microwave oven	0.00 (.09)	-0.16 (.07)	21	5	0
Roaring tiger	-0.06 (.07)	0.21 (.09)	6	9	11
Scratching styrofoam	-0.43 (.06)	0.17 (.07)	5	18	3
Toilet flush	-0.15 (.06)	-0.17 (.07)	17	8	1
Typewriter	0.01 (.06)	0.07 (.07)	12	7	7
Wasps	-0.23 (.09)	0.10 (.09)	10	8	8