Supplementary Table 1. Experiment 1 fMRI ANOVA Effects

	Coordinates				Volume	
Structure	RL	AP	IS	*F*	(mm^3)	Direction*
Novelty						
Left Amygdala/Hippocampus	21.4	11.1	-10.9	13.23	768	N > R
Right Amygdala	-15.8	3.1	-9.6	12.93	582	N > R
Right Parahippocampal Gyrus	-13.8	25.2	-6.6	12.18	415	N > R
Right Cuneus	-21.5	87.6	18.4	12.77	378	N > R
Right Hippocampus	-18.7	15.2	-12.6	12.55	326	N > R
Right Fusiform Gyrus	-28.1	40.8	-12.6	12.08	299	N > R
Right Middle Occipital Gyrus	-29.8	87.8	4.6	13.42	277	N > R
Right Inferior Frontal Gyrus	-51.0	-32.7	10.4	14.62	268	N > R
Left Parahippocampal Gyrus	27.6	8.1	-25.0	13.77	259	N > R
Valence						
Right Middle Occipital Gyrus	-27.6	83.2	7.7	13.38	3996	E > N
Left Middle Occipital Gyrus	26.5	85.9	19.4	12.88	2347	E > N
Left Fusiform Gyrus	25.5	60.1	-13.1	12.02	1334	E > N
Interaction						
Bilateral Cuneus	-2.2	76.9	6.8	13.74	257	

*Abbreviations: N = novel; R = Repeated; E = emotional; N = neutral.

Supplementary Table 2. Experiment 2 fMRI ANOVA Effects

	Coordinates				Volume	
Structure	RL	AP	IS	*F*	(mm^3)	Direction*
Novelty						
Right Lingual Gyrus	-16.1	71.2	-1.9	15.16	4726	N > R
Left Fusiform Gyrus	27.0	70.9	-12.5	12.23	1148	N > R
Left Middle Occipital Gyrus	36.4	82.2	1.9	12.68	1014	N > R
Right Cuneus	-20.1	86.3	22.3	11.62	906	N > R
Right Precuneus	-0.2	62.8	58.8	11.99	900	R > N
Left Middle Occipital Gyrus	11.5	88.8	13.7	12.29	650	N > R
Left Middle Frontal Gyrus	41.1	-52.4	-1.4	14.00	576	R > N
Right Middle Occipital Gyrus	-42.7	73.9	17.3	12.31	311	N > R
Right Inferior Parietal Lobule	-44.0	49.2	47.8	10.99	261	R > N
Left Precuneus	2.8	68.0	38.4	11.32	231	R > N
Human						
Right Occipitotemporal Sulcus (PPA)	-22.1	51.3	-10.9	15.21	6261	S > H
Right Middle Temporal Gyrus	-46.6	65.3	2.3	15.13	1779	H > S
Right Superior Occipital Gyrus	-30.9	78.6	25.6	14.01	1742	S > H
Right Calcarine Gyrus	-14.5	79.3	3.9	15.76	1359	S > H
Left Calcarine Gyrus	11.8	88.7	0.8	14.22	1288	S > H
Left Fusiform Gyrus (PPA)	23.8	43.4	-10.8	12.34	1129	S > H
Left Lingual Gyrus	20.9	70.4	-10.6	13.54	966	S > H
Right Fusiform (FFA)	-39.2	49.7	-16.0	13.07	918	H > S
Left Middle Temporal Gyrus	52.8	64.7	5.5	14.96	665	H > S
Left Superior Temporal Gyrus	56.5	55.3	20.6	12.81	496	H > S
Left Middle Occipital Gyrus	30.5	86.6	16.0	11.50	495	S > H
Left Superior Frontal Gyrus	12.6	4.5	71.2	13.19	415	H > S
Interaction						
Bilateral Thalamus/Left Caudate	1.9	5.4	10.7	12.59	1341	
Right Caudate	-8	-11	6	13.18	367	

*Abbreviations: N = novel; R = repeated; H = human; R = repeated; PPA = parahippocampal place area; FFA = fusiform face area.

Supplementary Table 3. IAPS Normative Ratings

Description	Slide Number	Valence	Arousal
Experiment 1: Emotional			
Mutilation	3000	1.45	7.26
Mutilation	3010	1.71	7.16
BurnVictim	3053	1.31	6.91
Mutilation	3060	1.79	7.12
Mutilation	3130	1.58	6.97
Experiment 1: Neutral			
Man	2190	4.83	2.41
NeutFace	2200	4.79	3.18
Woman	2305	5.41	3.63
NeutralMale	2493	4.82	3.34
Man	2512	4.86	3.46
Experiment 2: Human			
Woman	2305	5.41	3.63
Man	2190	4.83	2.41
NeutFace	2200	4.79	3.18
Woman	2506	5.67	3.50
NeutralMale	2493	4.82	3.34
Experiment 2: Scene			
Field	5711	6.62	3.03
Store	7495	5.90	3.82
Traffic	7595	4.55	3.77
Bed	7710	5.42	3.44
IroningBoard	7234	4.23	2.96

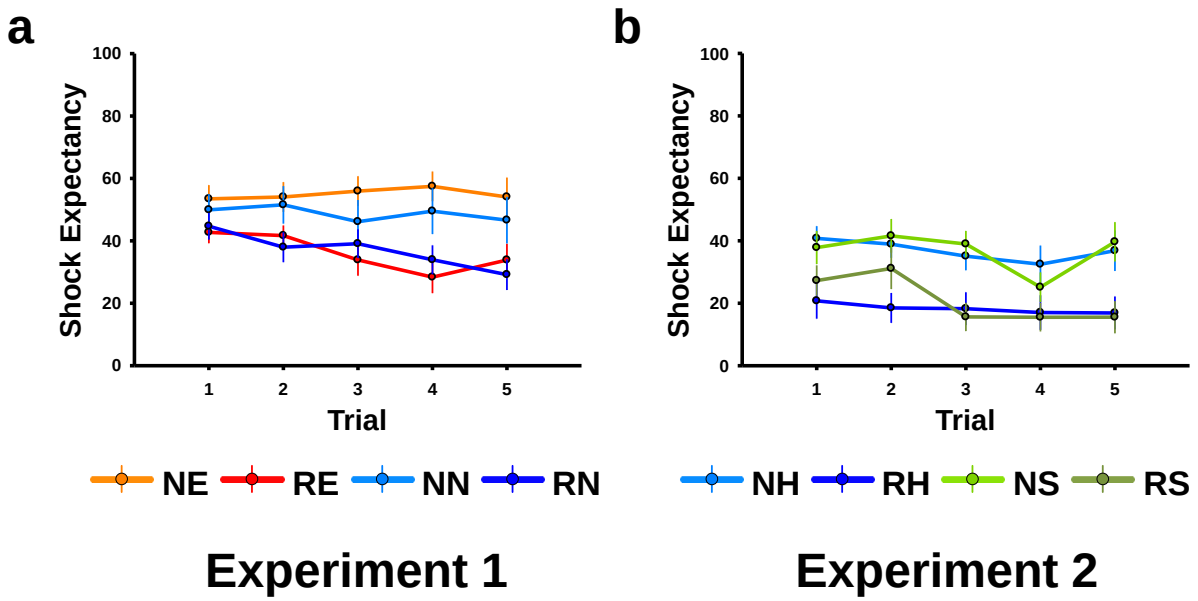
Supplementary Table 4. SCR Monte Carlo Simulations

Sample Length	λp (msec)	Number of Simulations	Probability	Cumulative Probability
1	0.0050	0	0.000000	0.0000
2	0.0100	1728	0.008640	0.0086
3	0.0150	156020	0.780100	0.7887
4	0.0200	39846	0.199230	0.9879
5	0.0250	2275	0.011375	0.9993
6	0.0300	127	0.000635	0.9999
7	0.0350	4	0.00002	1.0000
8	0.0400	0	0.000000	1.0000

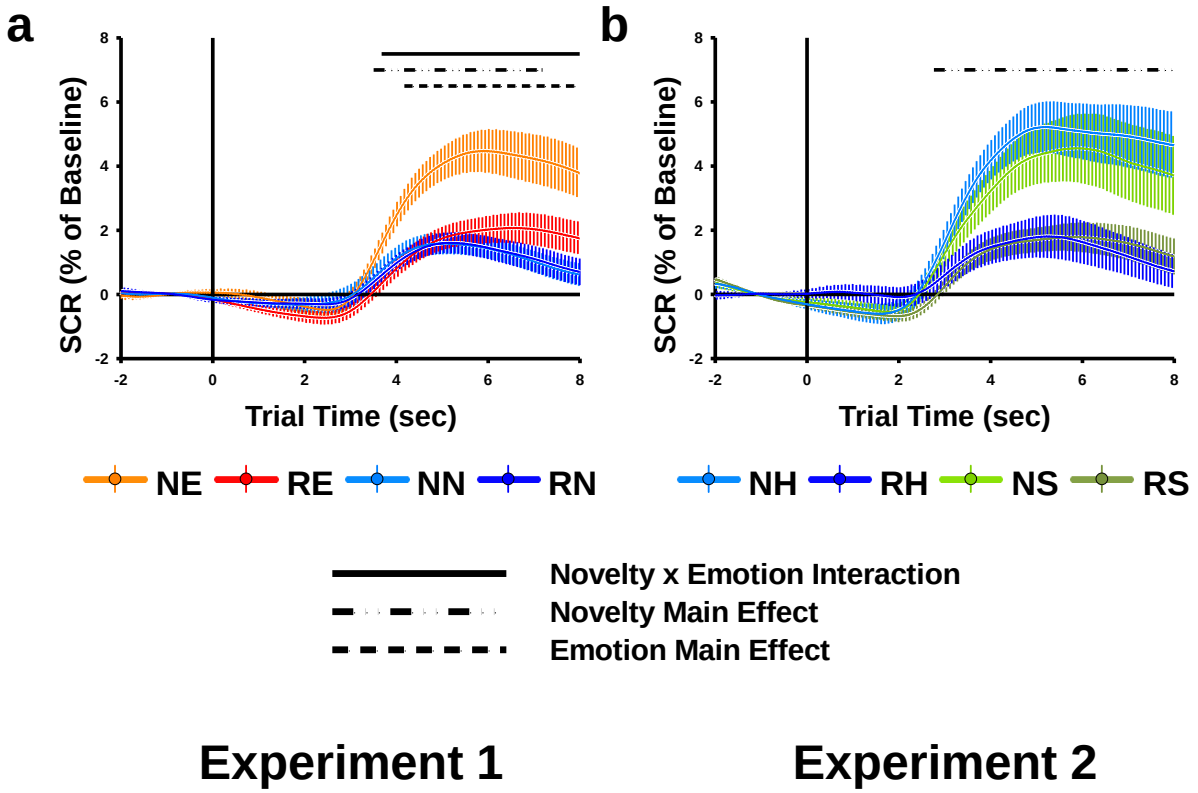
Supplementary Table 5. SCR ANOVA Effects

	Mean*		Sample Length**		
Effects	*TF*	*DF*	(samples)	Onset**	Offset**
Experiment 1: Main Effects					
Novelty	7.45	(1, 396)	3.60 (729)	3.51	7.15
Emotion	12.34	(1, 396)	3.80 (765)	4.18	Trial End
Experiment 1: Interaction					
NOV x EM	8.09	(1, 396)	4.32 (864)	3.68	Trial End
Experiment 2: Main Effects					
Novelty	14.39	(1, 396)	5.23 (1048)	2.77	Trial End
Human	--	--	--	--	--
Experiment 2: Interaction					
NOV x HUM	--	--	--	--	--

*Mean *F*-value for timepoints occurring during sample.
**Time in seconds.



Supplementary Figure 1. Participants were asked to rate their expectancy of receiving an electrical stimulation. Graphs depict mean±SEM shock expectancy Experiment 1 (**a**) and Experiment 2 (**b**). Values on the X-axis represent the trial number. Values on the Y-axis represent how likely the participant thinks they will receive a shock in the near future. In Experiment 1 (**a**) we observed an emotion by trial interaction. In Experiment 2 (**b**) we observed a novelty main effect and a trial main effect. (**a**: NE = novel emotional, RE = repeated emotional, NN = novel neutral, RN = repeated neutral; **b**: NH = novel human, RH = repeated human, NH = novel scene, RH = repeated scene).



Supplementary Figure 2. Novel emotional images in Experiment 1 drive SCR expression; whereas novel humans and novel scenes drive SCR expression in Experiment 2. Graphs depict mean±SEM SCR timecourse evoked by each of our stimuli for Experiment 1 (**a**) and Experiment 2 (**b**). X-axis shows a 10 second time window that includes the 8 second trial and a 2 second baseline. Values are expressed as a percent change from baseline. Vertical line indicates the onset of the stimulus period. Horizontal line indicates baseline SCL. ANOVAs were carried out at each timepoint. Lines at the top of the graphs indicate periods of time where significant effects were observed. (**a**: NE = novel emotional, RE = repeated emotional, NN = novel neutral, RN = repeated neutral; **b**: NH = novel human, RH = repeated human, NH = novel scene, RH = repeated scene).