Experiment	Measurement	Statistical Test	Comparison	° of freedom, error	F or T	p	*	Group Size	Fig.	Notes
Social buffering of learned fear	Percent freezing	t-test	Single vs Paired	24.000	3.322	0.003	**	n = 13/grp	1b	
Social buffering of learned fear by sex	Percent freezing	ANOVA	Sex	1, 22	8.737	0.007	**	M n = 7 single, n = 8 paired. F n = 6 single, n = 5 paired	S1a,b	Fisher's LD: M single vs M paired p = 0.001; F single vs F paired p = 0.08
			Sex x Condition	1, 22	1.154	0.294				
			Single/pair	1, 22	14.76	<0.001	***			
Social buffering of innate fear	Percent freezing	t-test	Single vs Paired	24.000	3.081	0.005	**	n = 13/grp	1c	
Social buffering of innate fear by sex	Percent freezing	ANOVA	Sex	1, 22	0.452	0.508		M n = 7 single, n = 8 paired. F n = 6 single, n = 5 paired	S1c,d	Fisher's LD: M single vs M paired p = 0.05; F single vs F paired p = 0.04
			Sex x Condition	1, 22	0.084	0.775				
			Single/pair	1, 22	8.606	0.008	**			
Social buffering of innate fear	Locmotion (Grid crossings; 1st 5 min)	t-test	Single vs Paired	24.000	1.73	0.096		n = 13/grp	1d	
Social buffering of innate fear by sex	Locmotion (Grid crossings; 1st 5 min)	ANOVA	Sex	1, 24	1.568	0.244		n = 5 F, 8 M paired; 6F 7M single	S1e,f	
			Sex x Condition	1, 24	0.007	0.936				
			Single/pair	1, 24	3.142	0.090				
Social buffering of innate fear	percent freezing relative to duration social interaction (sec)	Correlation	pearson; spearman		-0.061; -0.088	0.843; 0.775		n = 13/grp	1e	
Object-mediated buffering of learned fear	Percent freezing	t-test	Object vs No object	1, 18	3.629	0.002	**	n = 10/grp	1g	
Object-mediated buffering of learned fear by sex	Percent freezing	ANOVA	Sex	1, 16	0.008	0.930		M n= 3/grp, F n = 7/grp	S1g,h	
			Sex x Object	1, 16	0.034	0.857				
			Object	1, 16	10.327	0.005	**			
Object-mediated buffering of innate fear	Percent freezing	t-test	object vs no object	18.000	0.8	0.434		n = 10/grp	1h	
Object-mediated buffering of innate fear by sex	Percent freezing	ANOVA	Sex	1, 16	5.892	0.027	*	M n= 3/grp, F n = 7/grp	S1i,j	
			sex x object	1, 16	0.127	0.726				
			Object	1, 16	0.447	0.513				
Object-mediated buffering of innate fear	Distance traveled (cm)	t-test	Object vs No object	17.000	0.9977	0.332		n = 9 object, 10 no object	1i	1367 excluded due to tracking errors
Object-mediated buffering of innate fear by sex	Distance traveled (cm)	ANOVA	Sex	1, 17	0.591	0.454		n = 7 F, 3 M object; 6F 3M no object	S1k,l	1367 excluded due to tracking errors
			Sex x Condition	1, 17	0.501	0.490				
			Single/Pair	1, 17	0.785	0.389				
Object-mediated buffering of innate fear	Time in object zone (sec)	t-test	Object vs No object	17.000	-3.256	0.005	**	n = 10 object, 10 no object	1j	1399 excluded as an outlier

Social buffering of cued fear	Percent freezing	RM-ANOVA	Pre/post scent (RM)	1, 19	9.9373	0.005	**	n = 11 single, 10 paired	1l	
			Scent x Condition	1, 19	0.0966	0.759				
			Single/Pair	1, 19	6.621	0.019	*			
Social interaction following cued fear	Time interacting	paired *t*-test	Pre vs Post-scent	9.000	2.202	0.055	#	n = 10	1m	
Social buffering of cued fear - Males	Percent freezing	RM-ANOVA	Pre/Post scent (RM)	1, 12	10.1	0.008	**	n = 7/grp	S1m	
			Scent x Condition	1, 12	0.876	0.368				
			Single/Pair	1, 12	9.163	0.011	*			
Social buffering of cued fear - Fenales	Percent freezing	RM-ANOVA	Pre/Post scent (RM)	1, 5	1.261	0.312		n = 4 single, 3 paired	S1n	
			Scent x Condition	1, 5	0.6218	0.466				
			Single/Pair	1, 5	0.348	0.583				
Cfos+ cell counts	Number of fos+ cells	ANOVA	Group	2, 10	7.583	0.010	**	n = 3 - 6/grp	2b	
		Post-hoc *t*-test with uncorrected Fisher's LSD	Ctrl vs Novel	10.000	2.533	0.030	*			
			Ctrl vs Familiar	10.000	3.891	0.003	**			
			Novel vs Familiar	10.000	1.829	0.097				
Fluorescence of eYFP	Fluorescence (norm. a.u.)	ANOVA	Group	2, 21	3.392	0.012	*	n = 8 / group	2f	
		Post-hoc *t*-test with uncorrected Fisher's LSD	Ctrl vs Object	21.000	0.6906	0.4974				
			Ctrl vs Partner	21.000	2.464	0.0224	*			
			Object vs Partner	21.000	3.155	0.0048	**			
Optogenetic modulation of freezing - learned fear	Percent freezing	RM-ANOVA	Light On/Off (RM)	1, 46	51.439	<0.001	**	n = 26 ctrl, 22 expt	3c	Excluded due to technical reasons: 9305, 9796, 9795, 9562, 9522, 9524; Excluded 9811 = freezing < 10%
			Light x Group	1, 46	4.643	0.036	*			
			Group	1, 46	1.082	0.304				
	Change in freezing	*t*-test: ctrl vs exp	Light off minus light on	46.000	-2.111	0.040	*			
Optogenetic modulation of freezing - innate fear	Percent freezing	RM-ANOVA	Light On/Off (RM)	2, 96	2.068	0.132		n = 28 ctrl, 22 exp	3d	sphericity met; Excluded due to technical reasons: 9796, 9562, 9522, 9524, 9525
			Light x Group	2, 96	4.832	0.010	*			
			Group	1, 48	1.653	0.205				
		t-test	Group diff during light ON epoch	48.000	2.706	0.009	**			
Response to light application			Controls	27.000	-0.472	0.640				

(change from minute 3 to minute 4)		paired *t*-test	Experimental	21.000	3.118	0.005	**		S3b	
Optogenetic modulation of freezing - learned fear - Leak controls only	Percent freezing	RM-ANOVA	Light On/Off (RM)	1, 28	12.574	0.001	**	n = 8 ctrl, 22 expt	in main text	Excluded due to technical reasons: 9305, 9796, 9795, 9562, 9522, 9524; Excluded 9811 = freezing < 10%
			Light x Group	1, 28	17.135	0.000	***			
			Group	1, 28	8.513	0.007	**			
	Change in freezing	*t*-test: ctrl vs exp	Light off minus light on	28.000	-4.139	0.000	***			
Optogenetic modulation of freezing - innate fear - leak controls only	Percent freezing	RM-ANOVA	Light On/Off (RM)	2, 56	0.808	0.451		n = 8 ctrl, 22 exp	in main text	sphericity met; Excluded due to technical reasons: 9796, 9562, 9522, 9524, 9525
			Light x group	2, 56	1.201	0.309				
			Group	1, 28	5.329	0.029				
Response to light application (change from minute 3 to minute 4)	Percent freezing	paired *t*-test	Leak controls	7.000	-0.162	0.876		n = 8 ctrl, 22 exp	S3d	
			Experimental	21.000	3.118	0.005	**			
RTPP locomotion	% distance when light on	*t*-test	Ctrl vs Exp	48.000	-0.499	0.620		n = 29 ctrl, 21 exp	3f	Excluded due to technical reasons: 9796, 9562, 9561, 9522, 9524
RTPP side preference	% time on light-ON side	*t*-test	Ctrl vs Exp	48.000	-0.409	0.684			3g	
RTPP locomotion	distance when light on	*t*-test	Ctrl vs Exp	48.000	0.520	0.605		n = 29 ctrl, 21 exp	3h	Excluded due to technical reasons: 9796, 9562, 9561, 9522, 9524
	distance when light off	*t*-test	Ctrl vs Exp	48.000	-1.104	0.275			3i	
Optogenetic modulation of freezing - learned fear by minute	Percent freezing during light-ON	RM-ANOVA	Time (RM)	2, 92	26.689	< 0.001	**	n = 26 ctrl, 22 expt	S3a	time X light did not meet sphericity - Greenhouse-Geisser reported for time x light and time x light x group
			Time x Group	2, 92	1.788	0.173				
			Light (RM)	1, 46	50.602	< 0.001	**			
			Light X Group	1, 46	4.743	0.035	*			
			Time x Light	1.72, 79.12	10.43	< 0.001	**			
			Time X Light X Group	1.72, 79.12	0.392	0.646				
			Group	1, 46	0.411	0.524				
Optogenetic modulation of freezing -innate fear by minute	Percent freezing during light-ON	RM-ANOVA on first 6 minutes	Time (RM)	2, 96	9.99	<0.001	**	n = 28 ctrl, 22 exp	S3b	sphericity met
			Time x Group	2, 96	1.049	0.354				
			Light (RM)	1, 48	8.862	0.005	**			
			Light X Group	1, 48	0.096	0.757				
			Time x Light	2, 96	5.673	0.005	**			
			Time X Light X Group	2, 96	6.443	0.002	**			
			Group	1, 48	2.391	0.129				
			Time (RM)	2, 56	12.507	0.000	***			time X light did not
			Time x Group	2, 56	2.944	0.061	*			
			Light (RM)	1, 28	12.574	0.001	***			

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Description	Measure	Test	Effect	df	F	p	sig	n	Fig	Notes
Optogenetic modulation of freezing - learned fear by minute - Leak controls only	Percent freezing during light-ON	RM-ANOVA	Light X Group	1, 28	17.135	0.000	**	n = 8 ctrl, 22 exp	S3c	meet sphericity - Greenhouse-Geisser reported for time x light and time x light x group
			Time x Light	1.617, 45.279	1.153	0.315				
			Time X Light X Group	1.617, 45.279	3.919	0.035	*			
			Group	1, 28	8.513	0.007	**			
Optogenetic modulation of freezing -innate fear by minute Leak controls only	Percent freezing during light-ON	RM-ANOVA on first 6 minutes	Time (RM)	1.631, 45.659	5.407	0.012	*	n = 8 ctrl, 22 exp	S3d	sphericity not met for time, Greenhouse-Geisser reported for time, time X grp, time X light and Time X grp X light
			Time x Group	1.631, 45.659	0.666	0.489				
			Light (RM)	1, 58	0.23	0.635				
			Light X Group	1, 58	2.327	0.138				
			Time x Light	1.838, 51.466	4.322	0.021	*			
			Time X Light X Group	1.838, 51.466	0.518	0.599				
			Group	1, 28	5.586	0.025	*			
RTPP locomotion - by 5 minute bin	% distance when light on	RM-ANOVA	Time	2.2, 105.7	0.175	0.859		n = 29 ctrl, 21 exp	S3e	sphericity not met - values reported are Greenhouse-Geisser
			Time x Group	2.2, 105.7	0.529	0.663				
			Group	1, 48	0.167	0.684				
RTPP side preference - by 5 minute bin	% time on light-ON side	RM-ANOVA	Time	1.99, 95.59	0.098	0.906		n = 29 ctrl, 21 exp	S3f	sphericity not met - values reported are Greenhouse-Geisser
			Time x Group	1.99, 95.59	0.393	0.675				
			Group	1, 48	0.249	0.620				
RTPP locomotion - by 5 minute bin	distance (cm/s) when light on	RM-ANOVA	Time	2.439, 112.213	2.167	0.108		n = 27 ctrl, 21 expt	S3g	sphericity not met - values reported are Greenhouse-Geisser; 9313, 9790 excluded for failure to enter light-on side during at least one time bin
			Time x Group	2.439, 112.213	1.553	0.212				
			Group	1, 46	0.006	0.941				
RTPP locomotion - by 5 minute bin	distance (cm/s) when light off	RM-ANOVA	Time	2.013, 63.69	13.653	0.000	***	n = 27 ctrl, 21 expt	S3h	sphericity not met for time - values reported are Greenhouse-Geisser; 9316, 9811 excluded due to no entry into light-off side in at least one time bin
			Time x Group	2.013, 63.69	1.137	0.326				
			Group	1, 46	0.428	0.516				

**Technical reasons for exclusions include lost ferrule, lost video, laser malfunction