

Supplement 1

Image Acquisition

Scanning was performed on a 3T Siemens Trio scanner at the Harvard Center for Brain Science using a 32-channel head coil. Anatomical scans (T1-weighted multi-echo MPRAGE volumes) were acquired for co-registration with functional magnetic resonance imaging (fMRI; TR=2530ms, TE=1640-7040ms, flip angle=7°, FOV=220mm², 176 slices, in-plane voxel size=1mm³). To reduce motion-related artifacts, a navigator echo was used prior to scan acquisition, which compares slices to this echo online and permits up to 20% of slices be re-acquired.

Blood oxygenation level dependent (BOLD) signal during functional runs was acquired using a gradient-echo T2*-weighted echo planar imaging (EPI) sequence. Thirty-two 3mm thick slices were acquired parallel to the anterior and posterior commissure (AC-PC) line (TR=2000ms, TE=30ms, flip angle=90degrees, bandwidth=2300, echo spacing=0.5, FOV=256x256, matrix size=64x64). Prior to each scan, four images were acquired and discarded to allow longitudinal magnetization to reach equilibrium. An online prospective motion correction algorithm (PACE) was used to reduce the effect of motion artifacts.

Table S1. Self-Reported Emotional Intensity by Trial Type as a Function of Maltreatment (N=42)

	Maltreated		Controls		<i>t</i> (40)	<i>p</i> value	F(1,36) ^a	<i>p</i> value
	Mean	(SD)	Mean	(SD)				
Look Neutral	0.79	(0.49)	0.40	(0.21)	3.34*	.019	0.10	.76
Look Negative	2.54	(0.50)	2.55	(0.54)	-0.40	.60	.04	.85
Look Positive	2.43	(0.45)	2.23	(0.64)	1.15	.021	0.40	.53
Decrease Negative	1.76	(0.41)	1.79	(0.59)	-0.14	.68	3.25	.081
Increase Positive	2.97	(0.46)	2.89	(0.51)	0.56	.15	1.03	.32

^aModel controls for parent education, race/ethnicity, and internalizing and externalizing psychopathology.

* *p* < .05, 2-sided test

Table S2. Regions of the Brain That Were Significantly Active During Primary Task Contrasts in the Entire Sample (N=42)

	Region of Peak Activation	Cluster Size	x	y	z	z-value
Look Negative > Look Neutral	Lateral Occipital ^a (R and L)	35,699	20	27	40	8.07
	Fusiform Gyrus ^a (R and L)		24	40	28	7.95
	Middle Temporal Gyrus ^a (R and L)		74	60	29	4.97
	Thalamus ^a (R and L)		36	50	35	5.23
	Amygdala ^a (R and L)		55	58	29	4.39
	Temporal Pole ^a (R and L)		24	73	20	4.33
	Medial Prefrontal Cortex ^b (R and L)	3,177	43	89	31	5.82
	Superior Frontal Gyrus ^b (R)		43	91	56	5.15
	Middle Frontal Gyrus ^b (R)		25	73	50	5.14
Look Positive > Look Neutral	Lateral Occipital ^a (R and L)	35,397	20	27	40	8.25
	Fusiform Gyrus ^a (R and L)		64	27	29	8.06
	Precuneus ^a (R and L)		43	34	49	7.96
	Thalamus ^a (R and L)		37	48	37	6.a9
	Amygdala ^a (R and L)		55	58	29	6.05
	Middle Temporal Gyrus ^a (R and L)		76	59	28	5.88
	Medial Prefrontal Cortex ^a (R and L)		46	82	28	5.79
	Temporal Pole ^a (R and L)		28	73	21	5.01
	Hippocampus ^a (R and L)		33	55	28	4.57
	Nucleus Accumbens ^a (R and L)		42	70	33	3.15
Decrease Negative > Look Negative	Lingual Gyrus ^a (R and L)	5,798	38	32	33	5.00
	Cuneus ^a (R and L)		48	19	53	5.00
	Frontal Pole ^b (L)	1,800	70	84	32	5.21
	Orbitofrontal Cortex ^b (L)		62	79	30	3.76
	Superior Frontal Gyrus ^c (R and L)	1,100	42	72	66	3.74
	Middle Frontal Gyrus ^c (L)		63	72	59	3.17
Increase Positive > Look Positive	Superior Temporal Gyrus ^a (R and L)	13,726 (L)	75	43	38	5.48
	Middle Frontal Gyrus ^a (R and L)		63	70	56	5.02
	Middle Temporal Gyrus ^a (R and L)	2,680 (R)	15	58	39	4.91
	Insula ^a (L)		61	74	34	4.48
	Superior Frontal Gyrus ^a (R and L)		35	78	61	4.31
	Medial Prefrontal Cortex/ACC ^a (R and L)		44	85	37	3.81
	Posterior Cingulate ^b (R and L)	8,029	47	45	56	5.32
	Precuneus ^b (R and L)		41	37	42	4.57
	Lateral Occipital Cortex ^c (R and L)	3,224 (R)	68	32	56	6.03
	Occipital Pole ^c (R and L)	2,621 (L)	35	14	33	4.23

Note: Cluster-level correction applied in FSL, $z > 2.3$ was the primary threshold, and $p < .05$ was the cluster-level threshold. For regions with significant bilateral activation, the peak voxel is reported. ACC = anterior cingulate cortex; L = left; R = right.

^{a,b,c} Denotes regions that were part of the same cluster, with each number representing a unique cluster.

Table S3. Amygdala Response for Primary Task Contrasts as a Function of Maltreatment in Region-of-Interest Analysis (N=42)

	Maltreated		Controls		Total		t(40)	<i>p</i> Value	F(36) ^a	<i>p</i> Value
	Mean	(SD)	Mean	(SD)	Mean	(SD)				
LEFT AMYGDALA										
Look Negative > Look Neutral	4.46	(8.57)	2.00	(9.83)	2.39	(10.73)	1.22	.23	5.50*	.026
Decrease Negative > Look Negative	-2.13	(6.06)	0.15	(8.52)	-0.64	(8.39)	-1.00	.32	0.34	.57
Look Positive > Look Neutral	7.09	(7.26)	6.22	(9.67)	6.67	(8.41)	0.33	.75	1.21	.28
Increase Positive > Look Positive	1.61	(7.77)	3.46	(9.32)	2.52	(8.50)	-0.69	.49	1.45	.24
RIGHT AMYGDALA										
Look Negative > Look Neutral	4.91	(8.07)	4.52	(9.82)	5.19	(10.26)	0.14	.89	6.82*	.014
Decrease Negative > Look Negative	-0.76	(4.99)	-1.90	(6.79)	-0.76	(7.51)	0.62	.54	0.03	.88
Look Positive > Look Neutral	8.15	(6.93)	6.49	(9.05)	7.34	(7.98)	0.66	.51	1.55	.22
Increase Positive > Look Positive	0.80	(7.34)	2.98	(6.03)	1.86	(6.74)	-1.04	.31	0.23	.63

^a Model controls for parent education, race/ethnicity, and internalizing and externalizing psychopathology.

* *p* < .05, 2-sided test

Figure S1. Region of interest analysis of amygdala response during primary task contrasts as a function of child maltreatment.^a Note: Panel a: Look negative > look neutral contrast; Panel b: Decrease > look negative contrast; Panel c: Look positive > look neutral contrast; Panel d: Increase > look positive contrast; BOLD = blood oxygen level dependent. ^a With controls for race/ethnicity, parent education, and internalizing and externalizing psychopathology.

