Data supplement to McCrory et al. Autobiographical memory: candidate latent vulnerability mechanism for psychiatric disorder following childhood maltreatment. Br J Psychiatry doi: 10.1192/bjp.bp.117.201798

Maltreatment history

Abuse Subtype	-	Mean	SD
Physical abuse (n=3)			
	Severity (0-4)	1.00	0.00
	Mean age at onset	2.94	2.88
	Mean duration	2.75	2.38
Neglect (n=28)			
	Severity (0-4)	2.92	1.02
	Mean age at onset	1.91	4.92
	Mean duration	5.05	4.60
Sexual abuse (n=5)			
	Severity (0-4)	1.40	0.89
	Mean age at onset	1.15	1.80
	Mean duration	1.80	2.93
Emotional abuse (n=33)			
	Severity (0-4)	2.88	0.86
	Mean age at onset	1.78	4.19
	Mean duration	5.27	4.91
Domestic Violence (n=18)			
	Severity (0-4)	2.39	1.24
	Mean age at onset	3.79	6.20
	Mean duration	3.36	3.39

Table DS1. Documented Maltreatment Experience, Severity, Estimated Age of

 Onset And Duration (In Years)

All children were also administered the Childhood Trauma Questionnaire (CTQ; see below for subscale scores) a child self-report measure assessing emotional and physical neglect, as well as emotional, physical and sexual abuse, yielding separate scores for each domain as well as a composite overall score (see Table 1 in the main manuscript).

Table DS2. Childhood Trauma Questionnaire

	MT group	(<i>n</i> =34)	Control grou	Control group (<i>n</i> =33)	
	n	%	n	%	р
Type of maltreatment (CTQ score)					
Emotional abuse	8.15	3.95	6.03	1.61	0.006
Physical abuse	6.29	3.9	5.39	1.19	0.207
Sexual abuse	5.32	1.57	5.06	0.24	0.342
Emotional neglect	9.88	4.5	6.61	2.27	0.000
Physical neglect	8.35	3.42	5.61	1.14	0.000

DS1 Post-scan debriefing session procedure

After the scanning session, participants completed a post-scanning rating for the ABMs that were recalled in the scanner. ABMs were rated in relation to: emotional salience ("how did this memory make you feel?"); remoteness ("when did this happen?"); and agency ("how much did you feel like you were part of the scene?"). Due to a technical error, data on agency was only available for N=56 (n=28 MT; n=28 Non-MT). Data on emotion and remoteness was available for N=65 (n=33 MT; n=32 Non-MT).

	-	MT (n=34)		Non-M1 (n=33)		
Measures		Mean	SD	Mean	SD	p
ABM Debrief Ratings						
Agency ^a		3.81	0.74	3.94	0.69	0.49
Emotion		3.39	0.47	3.21	0.46	0.12
Remoteness		3.7	0.8	4.04	0.76	0.09
AMB Debrief Ratings by Cue Valence Agency ^a						
	Positive	3.91	0.73	4.14	0.68	0.25
	Negative	3.63	0.84	3.9	0.74	0.23
Emotion						
	Positive	3.89	0.57	4.02	0.5	0.35
	Negative	2.92	0.65	2.47	0.63	0.01
Remoteness						
	Positive	3.82	0.9	4.07	0.86	0.27
	Negative	3.57	0.9	3.98	0.86	0.08

Table DS3. Results from the Post-Scanning debriefing session

Abbreviations: MT, Maltreated group; Non-MT, Non-Maltreated group ^a 28 MT and 28 Non-MT due to technical error (see text)

DS2 Description of recalled memories

Participants across both groups recalled a range of experiences that were typical for their age group. These did not include traumatic events. Examples of negative memories, included: a situation when a child was sick after a special family meal and felt guilty; failing a school assessment; being told off in class and punished unfairly by their teacher; being rejected by a peer. Examples of positive memories, included: performing unexpectedly well in an afternoon club activity; buying a great Christmas

present for their mother that was much appreciated; being bought a packet of sweets by a friend; being bought a much desired game console for a birthday present.

DS3 Main effects for in-scanner & post-scanner ratings

The groups were comparable in the time taken to retrieve both positive and negative memories in the scanner (p's > 0.5). The Non-MT group took on average 3.92 seconds (\pm 2.4) and the MT group 3.83 seconds (\pm 1.54) to recall the positive memories and 4.04 (\pm 2.04) and 4.34 seconds (\pm 1.68) to recall the negative memories respectively. There was however a group difference in the time taken to retrieve control objects, with the MT group taking slightly longer (MT: 5.35, \pm 1.83; Non-MT: 4.39, \pm 1.35, p=.017).

Average recall success of cued ABMs was high (MT: 13.03 ± 1.21 memories, Non-MT: 13.24 ± 1.46 memories, p=0.52) and did not differ between the two groups (MT: 13.03 ± 1.21 memories, Non-MT: 13.24 ± 1.46 memories, p=0.52). Analyses of vividness, difficulty and recall success revealed a main effect of memory type (Positive ABM, Negative ABM, Object recall) for vividness [$F_{GG}(1.36, 86.89)=25.58$, p<0.001], difficulty [$F_{GG}(1.51, 98.3)=23.18$, p<0.001] and recall success [$F_{GG}(1.18, 76.69)=68.67$, p<0.001]. Inspection of the means indicated that ABM recall (both Positive and Negative) compared to Object recall was rated as more vivid, less difficult and more successful.

In relation to ratings of vividness and difficulty there were no main effects of group, or group x memory interactions. Analyses of the post-scanning ratings indicated there were no main effects of group for emotion, agency or remoteness. There was a group x valence interaction for emotion, with Non-MT children reporting that they felt significantly more negative than MT children during negative ABM recall (t(58)=-2.72, p=.009).

Analyses of the post-scanning ratings indicated a significant main effect of emotional salience [F(1,58)=180.95, p<.001], and agency [F(1,49)=13.17, p=.001], and a trend-level effect for remoteness [F(1,58)=3.72, p=.058]. Inspection of the means indicated that Positive ABMs were more salient, elicited a higher sense of agency and were more remote as compared to Negative ABMs. There were no main effects of group. A significant group x valence interaction emerged only for emotional salience, with Non-MT children reporting significantly lower mood than MT children during negative ABM recall (t(58)=-2.72, p=.009).

Whole brain findings for the contrast between Autobiographical Memory (ABM) recall and Control Object recall for the whole sample

 Table DS4:
 Whole brain contrast for ABM > Control Object recall for the whole sample

Brain region	R/L	x	у	z	ke	t	z
Ventromedial PFC	L	-3	56	-2	2018	7.64	7.25
		0	56	13		7.3	6.96

	L	-9	50	-11		7	6.69
Posterior cingulate cortex	R	6	-55	19	2743	7.24	6.91
Middle temporal gyrus ext. into Hippocampus	L	-57	-7	-14		6.57	6.32
Precuneus	L	-3	-58	28		5.99	5.79
Middle temporal gyrus ext. into Hippocampus	R	60	2	-14	265	5.82	5.64
Temporal pole	R	48	20	-26		4.49	4.4
		48	11	-26		4.03	3.97
Angular Gyrus/ Temporo-	R	51	-58	22	342	5.02	4.9
parietal junction		48	-46	16		4.27	4.19
		48	-37	16		4.16	4.09
Perisylvian Cortex	R	24	-16	25	82	3.7	3.65
		33	-34	22		3.67	3.62
		30	-25	22		3.23	3.2

 Table DS5:
 Whole brain contrast for Control Object > ABM recall for the whole sample

Brain region	R/L	x	У	z	_	ke	t	Ζ
Intraparietal sulcus	L	-24	-67	37		426	5.68	5.51
	L	-39	-43	43			4.01	3.94
	L	-21	-70	55			3.84	3.78
Inferior temporal cortex	L	-45	-55	-8		87	5.14	5.01
Intraparietal sulcus	R	33	-58	43		479	5.1	4.97
	R	45	-46	49			4.25	4.17
	R	12	-79	43			3.79	3.74

Figure DS1

Relationship between brain activity in left MTG in the maltreated group and estimated duration of maltreatment.



Figure DS1. Scatter plot depicting the correlation between the parameter estimates of the left MTG (positive ABM recall) and the duration of maltreatment in months.