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Dimensions	Aggression/checking	Contamination	Symmetry	Hoarding
Aggression/checking	-			
	-			
Contamination	0,22	-		
	0,70	-		
Symmetry	0,14	0,11	-	
	0,25	0,38	-	
Hoarding	0,08	0,16	0,36	-
-	0,51	0,19	0,003	-

Table DS1 Intercorrelations between current symptom severity within each of the dimensional components of the DY-BOCS^a

^aTwo-tailed Pearson's r correlations are listed first and in italics the *P* value for each correlation. In italics and bold, the *P* value corresponding to the only significant correlation.

Healthy controls	А	Anatomy ^a			5 ^b	OCD patients	Anatomy ^a		Stats ^b		OCD patients > Healthy controls	Anatomy ^a			Stats ^b		
	X	у	Z	K _E	Z		X	у	Z	K _E	Z		X	у	Z	K _E	Z
Visual cortex	28	-94	-6	>8000	>8	Visual cortex	-16	-98	-6	>8000	>8	Visual cortex extended to Superior parietal cortex	-24	-84	10	1220	3.85
	-18	-96	-6		>8		22	-94	-8		>8		-34	-60	50		3.50
	40	-50	-28		>8		28	-96	2		>8		-26	-78	30		3.30
Dorsolateral prefrontal cortex	44	12	28	>8000	>8	Medial frontal gyrus	2	16	52	3211	>8	Lingual gyrus	-12	-80	-6	192	2.97
I	46	22	20		>8		8	48	54		3.08	Superior temporal gyrus	56	-52	8	324	4.00
	-56	20	30		>8	Anterior cingulate cortex	2	4	24	227	4.45	1 1 85	58	-38	-2		2.55
Orbitofrontal cortex	-12	60	-16	16	3.3 6	Middle temporal gyrus	52	-12	-20	132	3.80	Amygdala (extended to midbrain)	-18	-2	-16	208	3.51
Medial prefrontal cortex	8	60	42	48	3.2 2	Fusiform gyrus	30	-4	-46	19	3.04		-10	-16	-6		3.07
	10	68	26		2.2 4		-34	-10	-40	39	2.47		-28	-4	-20		2.68
Middle temporal gyrus	52	-10	-20	40	2.8 3		-32	-2	-48		2.27	Middle frontal cortex – precentral	44	2	62	477	3.45
					Orbitofrontal cortex (extending to dorsolateral prefrontal cortex)	8	64	-10	14	2.41		46	-6	46		3.17	
							6	58	-16		2.05		36	0	48		2.92
							0	50	10		2.05	Superior parietal cortex	34	-64	-+0 50	201	3.11
												Anterior insula	36	24	4	161	3.07
										7 interior moute	36	24	-6	101	2.69		
											Dorsolateral prefrontal cortex	54	8	30	170	2.99	
													60	16	32		2.82
												Orbitofrontal cortex	48	48	-6	216	2.96
													36	54	-2	-	2.80
													30	60	8		2.76
												Precentral cortex	-58	-6	44	337	2.81
													-42	-8	36		2.77
													-48	4	36		2.74

Table DS2 Within and between groups activation of extended brain regions during the performance of the task (fearful faces>shapes)

Footnote: ^a Activity co-ordinates (x, y, z) are given in Montreal Neurological Institute (MNI) Atlas space. ^b Magnitude and extent statistics correspond to a minimum threshold of $P_{FDR} < 0.05$ (whole-brain corrected). K_E = cluster size (extent cluster size of 10 voxels).

Fig. DS1 Diagram of the face-matching task used.



Fig. DS2 Histograms representing the distribution of the Dimensional Yale-Brown Obsessive-Compulsive Scale (DY-BOCS) scores in each dimension and the correspondent normality-test statistics.



Fig. DS3 Whole-brain activations during emotional face matching task (fearful faces minus control task) within groups. (A) obsessive–compulsive disorder (OCD) group in top row, (B) control group in bottom row. Images are represented in standard neuroanatomical space (Montreal Neurological Institute (MNI)) and in neurological convention (i.e. right hemisphere is displayed on the right), represented at P_{FDR} <0.05 and K_E >10. Colour bar represents the *T*-value.



Fig. DS4 Correlations between amygdala activity and Dimensional Yale-Brown Obsessive-Compulsive Scale (DY-BOCS) severity scores, depression and anxious comorbid symptoms and a measure of difficulty of the task in aggression/checking and sexual/religious dimensions.

Plots represent: *X*-axis: first eigenvalues extracted at the amygdala peak coordinates for both dimensions (aggression/checking: x=18, y=-10, z=-16; sexual/religious: x=26, y=-10, z=-10). Y-axis: clinical scores on the Hamilton Rating Scale for Depression (HRSD also known as the HDRS), Hamilton Rating Scale for Anxiety (HRSA also known as the HARS) and mean reaction times difference fear-shapes (mean reaction time difference between the fearful face and shape matching conditions). All correlations were non-significant, with all P>0.05.



Fig. DS5 Negative correlations between Dimensional Yale-Brown Obsessive-Compulsive Scale (DY-BOCS) global severity score and Yale-Brown Obsessive Compulsive Scale (Y-BOCS) total score and the pattern of activations in the obsessive-compulsive disorder (OCD) group (fearful faces minus control task).

Results are presented at P_{FWE} <0.05 AlphaSim corrected. Images are represented in standard neuroanatomical space (Montreal Neurological Institute, MNI) and in neurological convention_(i.e. right hemisphere is displayed on the right), colour bar represents *T*-value. (A) Sagittal view, right hemisphere. (B) Sagittal view, left hemisphere. Yellow colour: DY-BOCS global severity score correlations. Peak cluster coordinates (*x*, *y*, *z*) and statistics (K_E = cluster size, Z): occipital gyrus: x = -20, y = -72, z = 14, K_E =3509, Z=4.42; fusiform gyrus: x = -34, y = -48, z = -30, K_E =176, Z=3.64; occipital gyrus: x = -2, y = -84, z=38, K_E =384, Z=3.63. Coordinates corresponding to the occipital gyrus were located bilaterally. Purple: Y-BOCS total score correlations. Peak cluster coordinates (*x*, *y*, *z*) and statistics (K_E = cluster size, Z): precuneus: x = 22, y = -64, z = 28, K_E =483, Z=3.90; parieto-occipital: x = 12, y = -88, z = 42, K_E =260, Z=3.05; occipital gyrus: x = -12, y = -94, z = -10, K_E =195, Z=2.70.

