

**Table 1. Voxelwise Comparison of the Frequency of Hyperactivation to the Frequency of Hypoactivation in Patients With PTSD, Relative to Matched Comparison Subjects**

Region	Side	Montreal Neurologic Institute Coordinates			Voxels
		x	y	z	
PTSD subjects	comparison subjects				
Amygdala	Right	26	2	-28	77
Amygdala, parahippocampal gyrus	Left	-18	-2	-28	48
Insula	Right	44	-6	18	74
Inferior parietal lobule	Right	66	-46	24	41
Mid-cingulate	Right/Left	0	-16	34	131
Precuneus	Left	-12	-46	46	277
Comparison subjects	PTSD				
Inferior occipital gyrus	Left	-34	-82	-20	248
Ventromedial prefrontal cortex/rostral anterior cingulate cortex	Right/Left	2	38	-14	991
Parahippocampal, lingual gyri	Left	-20	-48	-12	312
Middle temporal gyrus	Left	-62	-22	-16	103
Dorsal amygdala, anterior hippocampus	Left	-16	-8	-12	53
Orbitofrontal cortex	Left	-14	20	-12	88
Parahippocampal gyrus	Left	-14	-26	-8	197
Orbitofrontal cortex	Right	20	52	-12	33
Putamen	Right	32	-6	-8	39
Putamen	Right	34	-12	4	275
Middle occipital gyrus	Left	-32	-88	4	107
Dorsomedial prefrontal cortex	Left	-12	50	20	245
Dorsomedial prefrontal cortex	Right	18	52	22	43
Dorsomedial prefrontal cortex	Right	12	46	22	23
Dorsal anterior cingulate cortex	Right/Left	2	14	24	282

	t				
Mid-cingulate	Right	8	-2	46	141

<sup>a</sup>All peak voxel p 0.001.

**Table 2. Voxelwise Comparison of the Frequency of Hyperactivation to the Frequency of Hypoactivation in Patients with Social Anxiety Disorder, Relative to Matched Comparison Subjects<sup>a</sup>**

Region	Side	Montreal Neurologic Institute Coordinates			Voxels
		x	y	z	
Social anxiety disorder subjects comparison subjects					
Amygdala, parahippocampal gyrus	Left	-24	-6	-28	541
Fusiform gyrus	Right	32	-26	-28	32
Amygdala, parahippocampal gyrus	Right	16	-2	-24	286
Parahippocampal gyrus	Right	22	-14	-26	46
Globus pallidus	Left	-16	-10	-4	76
Insula	Left	-36	16	-2	23
Inferior frontal gyrus	Right	42	34	4	291
Insula	Right	40	-8	12	207
Insula	Left	-40	-4	6	35
Superior temporal gyrus	Left	-46	-56	10	26

<sup>a</sup>All peak voxel p 0.001.

**Table 3. Voxelwise Comparison of the Frequency of Hyperactivation to the Frequency of Hypoactivation in Patients With Specific Phobia, Relative to Matched Comparison Subjects<sup>a</sup>**

Region	Side	Montreal Neurologic Institute Coordinates			Voxels
		x	y	z	
Specific phobia subjects					
comparison subjects					
Amygdala	Right	26	0	-16	220
Amygdala	Left	-22	-4	-14	53
Fusiform gyrus	Right	24	-74	-8	155
Substantia nigra	Left	-16	-10	-10	13
Insula	Left	-38	6	0	342
Insula	Right	36	16	8	266
Mid-cingulate	Right/Left	0	0	40	52

<sup>a</sup>All peak voxel p 0.001.

**Table 4. Summary of the Included Studies for the Meta-Analysis of Functional Neuroimaging Studies of Fear Conditioning in Healthy Subjects**

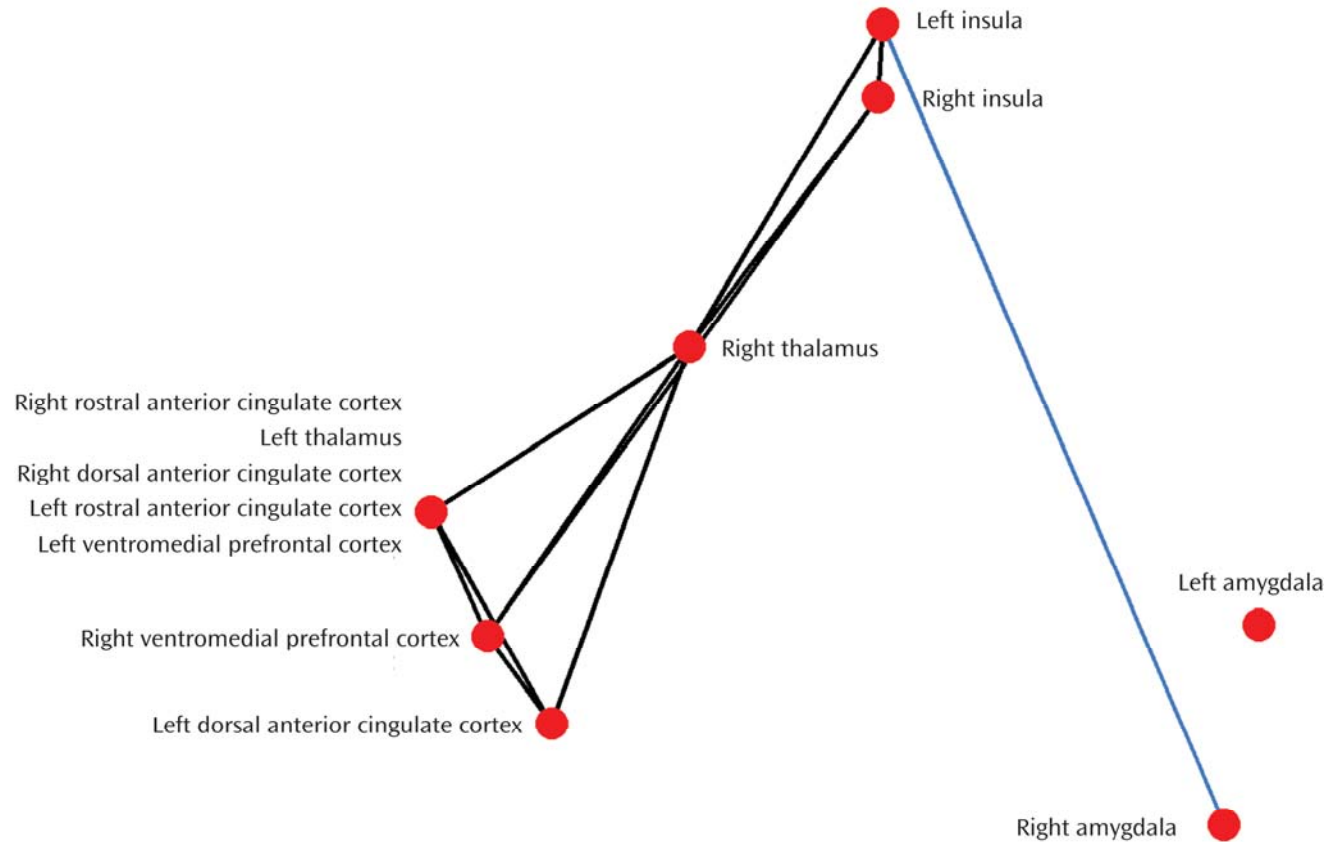
Reference	Subjects	Stimulation
Armony and Dolan (2002) (46)	10	Angry face conditioned stimulus, white noise unconditioned stimulus
Buchel et al. (1999) (47)	11	Tone conditioned stimulus, aversive tone unconditioned stimulus
Buchel et al. (1998) (48)	9	Visual conditioned stimulus, aversive tone unconditioned stimulus
Critchley et al. (2002) (49)	6	Angry face conditioned stimulus, white noise unconditioned stimulus
Gottfried and Dolan (2004) (50)	18	Neutral face conditioned stimulus, unpleasant odor unconditioned stimulus
Gottfried et al. (2002) (51)	17	Neutral face conditioned stimulus, unpleasant odor unconditioned stimulus
Jensen et al. (2003) (52)	11	Visual conditioned stimulus, electric shock unconditioned stimulus
Knight et al. (2005) (53)	9	Tone conditioned stimulus, aversive tone unconditioned stimulus
Phelps et al. (2004) (54)	18	Visual conditioned stimulus, electric shock unconditioned stimulus
Yaguez et al. (2005) (55)	8	Visual conditioned stimulus, esophageal distention unconditioned stimulus

**Table 5. Results That Identify Regions Significantly Activated During Fear Conditioning in Healthy Subjects<sup>a</sup>**

Fear Conditioning	Side	Montreal Neurologic Institute Coordinates			Voxels
		x	y	z	
Region					
Amygdala	Right	22	-4	-20	42
Orbitofrontal cortex	Left	-26	52	-14	58
Substantia nigra/ventral tegmental area	Left	-4	-20	-14	71
Substantia nigra/ventral tegmental area	Right	10	-14	-10	118
Putamen	Right	32	10	-6	11
Insula	Right	42	14	6	516
Insula	Left	-32	20	8	330
Anterior thalamus	Left	-10	-6	8	17
Anterior thalamus	Right	10	-4	8	39
Globus pallidus	Left	-12	4	2	15
Inferior parietal lobule	Right	58	-42	24	226
Mid-cingulate	Right/Left	0	12	36	430

<sup>a</sup>All peak voxel p 0.001.

**Figure 1. Patterns of Coactivation Correlations in Either the Positive (black lines) or Inverse (blue lines) Directions for the Combination of the Social Anxiety Disorder and Specific Phobia Data Sets<sup>a</sup>**



<sup>a</sup>Regions of interest are plotted along dimensions of the first two principle components on the x and y axes, respectively (axes not shown). Solid lines represent  $p < 0.05$  false-discovery-rate corrected, whereas dotted lines represent  $p < 0.05$ , uncorrected. Co-localization of multiple regions of interest to the same dot in C reflects the fact that only a single study reported activation in all of these regions (44) and thus

artificially affects data for these regions within the social anxiety disorder/specific phobia data set only. We found that a pattern of negative coactivation correlation (i.e., inverse effects) was found significantly more frequently in PTSD than in social anxiety disorder/specific phobia between the right dorsal anterior cingulate cortex and the right insula ( $p=0.02$ ).