

Supplementary Information for

**Interindividual differences in pain can be explained by fMRI, sociodemographic, and psychological factors**

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**This PDF file includes:**

1. Supplementary Tables (p. 2-4)

**Supplementary Table 1.** Suprathreshold clusters in the univariate analysis result in average pain ratings (**Fig. 2b**, bottom)

Cluster name	Coordinates			# Voxels	Volume (mm <sup>3</sup> )	Max Z
	x	y	z			
L lingual gyrus	-14	-70	10	307	2456	5
R lingual gyrus	20	-60	8	89	712	4.56
R cuneus	8	-74	14	86	688	4.71
R lingual gyrus	2	-84	-14	83	664	4.34
R lingual gyrus	6	-56	2	35	280	4.46
L lingual gyrus	-16	-54	-8	30	240	4.05
R precentral gyrus	60	-2	18	30	240	4.36
brainstem	4	-30	-10	27	216	4.83
R superior frontal gyrus	10	-16	60	26	208	5.13
R superior parietal gyrus	24	-54	56	23	184	4.12
Left VI	-18	-68	-16	19	152	3.92
L superior frontal gyrus	-6	10	54	16	128	4.15
L superior parietal gyrus	-18	-50	54	16	128	4.46
R precentral gyrus	8	-24	80	15	120	4.27
Right VI	18	-62	-16	14	112	4.28
R precentral gyrus	42	-6	40	14	112	4.13
L superior frontal gyrus	-6	-14	54	14	112	4.17
R superior frontal gyrus	24	-2	50	11	88	4.16
R supramarginal gyrus	46	-34	54	11	88	4.04
R superior parietal gyrus	36	-46	60	11	88	4.06
L middle frontal gyrus	-36	38	32	10	80	4
R precentral gyrus	12	-18	70	10	80	3.93
<hr style="border-top: 1px dashed black;"/>						
R superior frontal gyrus	14	6	54	8	64	4.61
R superior parietal gyrus	28	-52	64	8	64	4.01
R precentral gyrus	50	-10	42	7	56	3.88
Left IX	-4	-52	-44	5	40	-4.1
R fusiform gyrus	36	-30	-28	5	40	4.14
R lingual gyrus	24	-68	-4	5	40	3.96
L middle frontal gyrus	-30	30	30	5	40	3.92
L precentral gyrus	-38	-2	44	5	40	3.86
R gyrus rectus	8	18	-22	4	32	4.05
L middle frontal gyrus	-38	54	22	4	32	3.82
R middle frontal gyrus	42	4	40	4	32	3.8
R superior frontal gyrus	6	4	56	4	32	3.87
L superior frontal gyrus	0	-22	66	4	32	3.88
Right I-IV	8	-40	-16	3	24	4.01
brainstem	-12	-26	-12	3	24	3.97
Thalamus	-4	-6	8	3	24	4.09
R precentral gyrus	64	10	12	3	24	3.89
L superior frontal gyrus	-8	10	42	3	24	3.92
L precentral gyrus	-38	-18	46	3	24	3.82
L cingulate gyrus	0	-6	44	3	24	3.91
L superior parietal gyrus	-30	-46	60	3	24	3.85
L postcentral gyrus	-14	-30	80	3	24	3.8

Note. All brain clusters were significant at  $q < 0.05$  with cluster extent  $> 2$ , two-tailed. Brain clusters with cluster extent  $< 10$  are listed below the dashed line.

**Supplementary Table 2.** Suprathreshold clusters in the multivariate analysis results (**Fig. 2c**)

Cluster name	Coordinates			# Voxels	Volume (mm <sup>3</sup> )
	x	y	z		
L inferior occipital gyrus	-36	-86	-14	94	752
R inferior occipital gyrus	38	-80	-10	91	728
L lingual gyrus	-14	-72	10	89	712
Right Crus I	28	-80	-34	81	648
R middle occipital gyrus	30	-94	-4	80	640
brainstem	18	-34	-42	63	504
R cuneus	8	-74	14	63	504
R superior parietal gyrus	28	-62	64	58	464
L caudate	-10	10	10	43	344
Right Crus I	46	-58	-28	32	256
R precentral gyrus	12	-22	76	32	256
L lateral orbitofrontal gyrus	-32	30	-4	27	216
R lingual gyrus	6	-56	0	23	184
R gyrus rectus	8	16	-24	20	160
R inferior occipital gyrus	44	-64	-14	20	160
Left X	-20	-38	-44	19	152
L fusiform gyrus	-38	-44	-24	19	152
L middle temporal gyrus	-60	-2	-26	18	144
brainstem	4	-34	-12	18	144
R superior parietal gyrus	28	-52	64	16	128
L superior frontal gyrus	-10	20	66	16	128
R superior frontal gyrus	12	32	56	15	120
L middle frontal gyrus	-18	54	32	14	112
R middle frontal gyrus	22	50	12	13	104
L superior frontal gyrus	-2	12	56	13	104
L superior parietal gyrus	-20	-48	54	12	96
R precuneus	6	-74	56	12	96
Right VIIIb	14	-46	-54	10	80
L inferior temporal gyrus	-44	-28	-16	10	80
R insular cortex	34	6	-4	10	80
R superior frontal gyrus	4	0	58	10	80
Left VI	-22	-70	-18	9	72
R precentral gyrus	58	0	20	9	72
L middle orbitofrontal gyrus	-14	10	-20	8	64
L putamen	-20	0	6	8	64
R supramarginal gyrus	48	-36	50	8	64
R superior parietal gyrus	36	-48	62	8	64
Left IX	-6	-50	-42	7	56
R fusiform gyrus	36	-32	-30	7	56
R inferior temporal gyrus	62	-44	-24	7	56
R middle orbitofrontal gyrus	16	54	-22	7	56
Left I-IV	-8	-44	-14	7	56
R inferior occipital gyrus	24	-70	-6	7	56
R putamen	34	-14	-4	7	56
L superior frontal gyrus	-8	64	0	7	56
L middle frontal gyrus	-36	46	10	7	56
L angular gyrus	-46	-66	46	7	56
L inferior temporal gyrus	-34	-4	-48	6	48
R inferior temporal gyrus	56	-22	-28	6	48
L caudate	-14	-2	16	6	48
R angular gyrus	44	-54	30	6	48
R precuneus	10	-54	32	6	48
R cingulate gyrus	8	-26	36	6	48
R middle frontal gyrus	40	2	56	6	48
L superior parietal gyrus	-32	-48	58	6	48
L parahippocampal gyrus	-24	-10	-32	5	40
L middle orbitofrontal gyrus	-22	62	-18	5	40

R lingual gyrus	6	-84	-16	5	40
R middle occipital gyrus	54	-70	-8	5	40
L cingulate gyrus	-4	-40	12	5	40
R postcentral gyrus	38	-28	40	5	40
R superior frontal gyrus	2	-4	44	5	40
L superior frontal gyrus	-20	-10	74	5	40
R fusiform gyrus	42	-42	-26	4	32
brainstem	-8	-16	-24	4	32
R middle temporal gyrus	42	-18	-16	4	32
L putamen	-28	-20	0	4	32
Thalamus	28	-22	2	4	32
R cingulate gyrus	4	36	6	4	32
R caudate	10	12	8	4	32
R putamen	28	-24	10	4	32
R supramarginal gyrus	44	-30	22	4	32
R cingulate gyrus	4	-12	28	4	32
L superior frontal gyrus	-6	30	50	4	32
L inferior temporal gyrus	-38	10	-46	3	24
Vermis VIIIb	6	-60	-36	3	24
Left V	-26	-36	-36	3	24
R middle orbitofrontal gyrus	30	28	-26	3	24
Thalamus	-2	-24	2	3	24
L superior frontal gyrus	-8	72	2	3	24
R superior frontal gyrus	4	66	6	3	24
L precentral gyrus	-48	6	22	3	24
R superior occipital gyrus	12	-86	24	3	24
R superior parietal gyrus	14	-50	46	3	24
R superior frontal gyrus	12	6	54	3	24
L superior parietal gyrus	-10	-74	62	3	24

*Note.* All brain clusters were significant at uncorrected  $p < 0.001$  with cluster extent  $> 2$ , two-tailed. Brain clusters with cluster extent  $< 10$  are listed below the dashed line.