SUPPORTING INFORMATION FILE S1 – ALTERNATIVE PARCELLATION TEMPLATES

Template 442

seed volume range
= 194 to 385 voxels

Template 436

seed volume range
= 199 to 390 voxels

Template 274

seed volume range
= 319 to 635 voxels
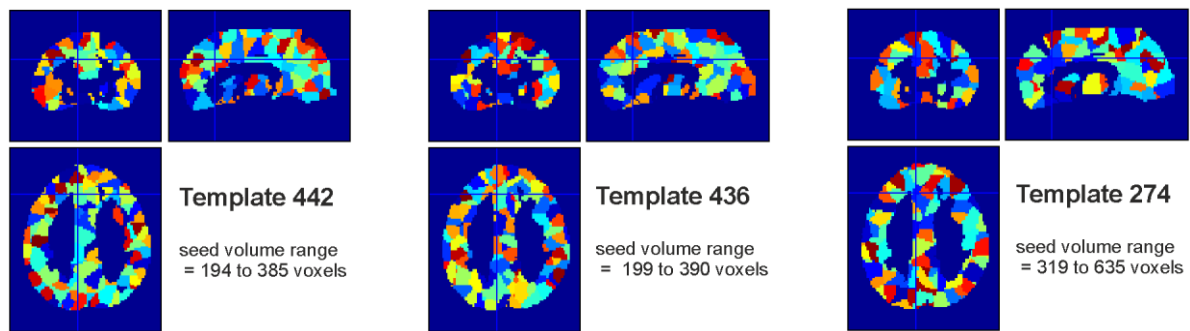
SUPPORTING FIGURE S1.1. **Different randomly parcellated templates lead to similar results for the RS analysis** (see table below). **Left:** Parcellation template with 442 seed regions as used in the main manuscript. **Middle:** Alternative template with the similar number (436) and similar sizes of seed regions as in the main manuscript. **Right:** Coarser sampled template with 274 seed regions.

SUPPORTING TABLE S1.1. Main statistics (LME) of RS periods (changes following the task and in the post-task phase) for all three templates.

Response	Factor	Template 442 (same as main results table 1)		Template 436		Template 274	
				F value		F value	
Connectivity Strength	**Resting State (RS)**	**F(2,36) = 5.80,**	**p < 0.01**	5.74	**p < 0.01**	5.17	**p < 0.05**
	Performance	**F(1,18) = 8.46,**	**p < 0.01**	8.37	**p < 0.01**	8.33	**p < 0.01**
	Interaction RS*Perf.	**F(2,36) = 4.32,**	**p < 0.05**	4.23	**p < 0.05**	3.79	**p < 0.05**
Global Efficiency	**RS**	**F(2,36) = 15.8,**	**p < .0001**	19.2	**p < .0001**	14.7	**p < .0001**
	Performance	F(1,18) = 0.1,	p = 0.74	0	p = 0.93	0	p = 0.92
	Interaction RS*Perf.	F(2,36) = 1.6,	p = 0.22	1.6	p = 0.21	1.2	p = 0.31
Clustering	**RS**	**F(2,36) = 8.35,**	**p < 0.01**	8.95	**p < 0.001**	9.1	**p < 0.001**
	Performance	F(1,18) = 2.59,	p = 0.13	1.98	p = 0.18	2.22	p = 0.15
	Interaction RS*Perf.	**F(2,36) = 6.18,**	**p < 0.01**	4.34	**p < 0.05**	1.89	p = 0.17
Physical Distances	**RS**	**F(2,36) = 22.42,**	**p < 0.001**	16.81	**p < .0001**	16.43	**p < .0001**
	Performance	F(1,18) = 0.24,	p = 0.63	0	p = 0.97	0	p = 0.97
	Interaction RS*Perf.	F(2,36) = 1.82,	p = 0.17	2.39	p = 0.11	1.96	p = 0.16

The main effects described in the manuscript were widely preserved when using alternate templates, even though if the number of seed regions were significantly reduced as in template 274. For clustering the interaction of resting state and performance is not significant for template 274 (indicated in red). However, in the post-hoc test the differences in clustering between RS3 and RS2 were significantly correlated with performance (Clustering of RS3-RS2: correlation with individual vigilance decrement with Pearson's r = 0.6, p<0.01 and dichotomous testing for both performance groups (impaired vs. resilient subjects), two-sample t-test: t(18) = 3.09, p<0.01).