

Table S1. Microsleep-related activities when stimulus was off (≥ 50 voxels or $\geq 5\%$ overlap).

Region name	Region total voxel number	Voxel in activated cluster	Overlap percentage
Activation			
Temporal Occipital Fusiform Cortex	1766	1340	75.9
Lateral Occipital Cortex, inferior division	4531	3211	70.9
Superior Parietal Lobule	3177	1619	51.0
Superior Temporal Gyrus, posterior division	2128	966	45.4
Superior Temporal Gyrus, anterior division	574	227	39.5
Lateral Occipital Cortex, superior division	10408	3985	38.3
Middle Temporal Gyrus, temporooccipital part	2248	820	36.5
Inferior Temporal Gyrus, temporooccipital part	1712	604	35.3
Lingual Gyrus	3765	1172	31.1
Postcentral Gyrus	7875	2325	29.5
Temporal Fusiform Cortex, posterior division	1913	465	24.3
Supracalcarine Cortex	418	98	23.4
Occipital Fusiform Gyrus	2029	440	21.7
Cuneal Cortex	1526	329	21.6
Supramarginal Gyrus, anterior division	2005	431	21.5
Supramarginal Gyrus, posterior division	2663	470	17.6
Occipital Pole	5497	955	17.4
Parahippocampal Gyrus, posterior division	815	113	13.9
Precentral Gyrus	9499	1241	13.1
Middle Temporal Gyrus, posterior division	2936	339	11.5
Precuneous Cortex	6269	715	11.4
Angular Gyrus	3021	272	9.0
Temporal Pole	4800	330	6.9
Middle Temporal Gyrus, anterior division	983	53	5.4
Inferior Temporal Gyrus, posterior division	2208	115	5.2
Cingulate Gyrus, posterior division	2825	90	3.2
Middle Frontal Gyrus	5741	140	2.4
Deactivation			
Left Thalamus	1532	331	21.6
Left Caudate	717	92	12.8
Right Thalamus	1512	85	5.6

Table S2. Microsleep-related activities when stimulus was on (≥ 50 voxels or $\geq 5\%$ overlap).

Region name	Region total voxel number	Voxel in activated cluster	Overlap percentage
Activation			
Planum Temporale	1180	818	69.3
Temporal Occipital Fusiform Cortex	1766	1121	63.5
Lateral Occipital Cortex, inferior division	4531	2850	62.9
Superior Temporal Gyrus, posterior division	2128	1099	51.6
Superior Parietal Lobule	3177	1412	44.4
Parietal Operculum Cortex	1300	558	42.9
Cuneal Cortex	1526	506	33.2
Postcentral Gyrus	7875	2384	30.3
Middle Temporal Gyrus, temporooccipital part	2248	633	28.2
Inferior Temporal Gyrus, temporooccipital part	1712	453	26.5
Central Opercular Cortex	2139	557	26.0
Lateral Occipital Cortex, superior division	10408	2691	25.9
Lingual Gyrus	3765	944	25.1
Planum Polare	843	202	24.0
Occipital Pole	5497	1169	21.3
Supramarginal Gyrus, anterior division	2005	415	20.7
Heschl's Gyrus (includes H1 and H2)	713	146	20.5
Supracalcarine Cortex	418	79	18.9
Supramarginal Gyrus, posterior division	2663	472	17.7
Temporal Fusiform Cortex, posterior division	1913	318	16.6
Superior Temporal Gyrus, anterior division	574	92	16.0
Occipital Fusiform Gyrus	2029	288	14.2
Precentral Gyrus	9499	1207	12.7
Temporal Pole	4800	455	9.5
Insular Cortex	2501	227	9.1
Angular Gyrus	3021	194	6.4
Inferior Temporal Gyrus, posterior division	2208	131	5.9
Middle Temporal Gyrus, posterior division	2936	170	5.8
Precuneous Cortex	6269	255	4.1
Middle Frontal Gyrus	5741	60	1.0
Deactivation			
Left Thalamus	1532	575	37.5
Right Thalamus	1512	421	27.8
Right Caudate	750	189	25.2

Table S3. Activated regions when stimulus was on vs off during microsleep (≥ 50 voxels or $\geq 5\%$ overlap).

Region name	Region total voxel number	Voxel in activated cluster	Overlap percentage
Activation			
Planum Temporale	1180	633	53.6
Heschl's Gyrus (includes H1 and H2)	713	269	37.7
Parietal Operculum Cortex	1300	186	14.3
Central Opercular Cortex	2139	254	11.9
Planum Polare	843	58	6.9
Superior Temporal Gyrus, posterior division	2128	124	5.8