

Modality	Duration	Voxel, Matrix	Key Parameters
T1	4:54	1.0x1.0x1.0 mm 208x256x256	3D MPRAGE, sagittal, R=2, TI/TR=880/2000 ms
T2 FLAIR	5:52	1.05x1.0x1.0 mm 192x256x256	FLAIR, 3D SPACE, sagittal, R=2, PF 7/8, fat sat, TI/TR=1800/5000 ms, elliptical
swMRI	2:34	0.8x0.8x3.0 mm 256x288x48	3D GRE, axial, R=2, PF 7/8 TE1/TE2/TR=9.4/20/27 ms,
dMRI	7:08	2.0x2.0x2.0 mm 104x104x72	MB=3, R=1, fat sat, b=0(5x + 3x phase-encoding-reversed), 1000(50x), 2000(50x)
rfMRI	6:10	2.4x2.4x2.4 mm 88x88x64	TE/TR=39/735 ms, MB=8, R=1, flip angle 52°, fat sat
tfMRI	4:13	2.4x2.4x2.4 mm 88x88x64	Acquisition same as rfMRI. Task is faces/shapes "emotion" task.

R = in-plane acceleration factor, MB = multiband factor, PF=partial Fourier. All non-EPI scans are pre-scan normalized (on-scanner bias-field corrected). Gradient distortion correction is turned off on the scanner and applied in post-processing.

Supplementary Table 1. Overview of the UK Biobank brain MRI protocol (31 minutes total scan time).