eAppendix 2. Fibre Bundle Cortical Terminations

Anatomically Targetted Automated Tractography

White matter bundle reconstruction was performed with a modified algorithm based on previous work.[e1] Here we used Freesurfer's (v7)[e2] Destrieux[e3] parcellation to construct the AF, IFOF, ILF, MLF, UF and sub-fasciculi extracted if significant at the whole bundle level (see eTable 3 for details on cortical terminations).

Anatomically constrained tractography (ACT)[e4] using hybrid surface and volume segmentation in MRtrix3[e22] was performed using second-order integration over fiber orientation distribution probabilistic fiber tracking algorithm[e6] selecting a maximum of 5000 streamlines from 300 million seeds. Tractography was performed twice, switching the seed and termination cortical region-of-interest (ROI). Fiber bundles were then converted to probabilistic maps, thresholded at a value of 0.01, and used as an exclusion criterion to remove spurious streamlines. Each bundle was inspected; manual exclusion masks were used if spurious streamlines remained.

eTable 3: Fibre bundle cortical terminations. All bundles are association bundle, and as such run within a single hemisphere, and termination regions are therefore listed without indication of laterality. Cortical regions were selected from the Destrieux parcellation.

Fibre bundle	Cortical Termination A	Cortical Termination B
AF[e7]	IFG – pars opercularis IFG – pars orbitalis IFG – pars triangularis PcG – precentral gyrus MFG – middle frontal gyrus	STG – Anterior transverse temporal gyrus STG – Lateral aspect STG – Planum polare STG – Planum temporale ITG – inferior temporal gyrus MTG – middle temporal gyrus
IFOF[e8,e9]	FP – frontal pole IFG – pars opercularis IFG – pars orbitalis IFG – pars triangularis OFC – orbital frontal gyrus OFC – orbital lateral sulcus OFC – orbital medial sulcus	IOG – inferior occipital gyrus CUN – cuneus MOG – middle occipital gyrus SOG – superior occipital gyrus FG – fusiform gyrus LG – lingual gyrus AG – angular gyrus

	OFC – orbital H shaped sulcus MFG – middle frontal gyrus MFS – middle frontal sulcus	SPG – superior parietal gyrus PCUN – precuneus OP – occipital pole CAL – calcarine
ILF[e10]	SOG – superior occipital gyrus LG – lingual gyrus LS – lingual sulcus CAL – calcarine	STG – Anterior transverse temporal gyrus STG – Lateral aspect STG – Planum polare STG – Planum temporale ITG – inferior temporal gyrus MTG – middle temporal gyrus
MLF[e11,e12]	AG – angular gyrus POS – parietal-occipital sulcus SPG – superior parietal gyrus	STG – Anterior transverse temporal gyrus STG – Lateral aspect STG – Planum polare
UF[e13]	FP – frontal pole OFC – orbital frontal gyrus OFC – orbital lateral sulcus OFC – orbital medial sulcus OFC – orbital H shaped sulcus	STG – Planum polare TP – temporal pole Left-Amygdala

Abbreviations: AF: arcuate fasciculus, IFOF: inferior front-occipital fasciculu, ILF: inferior longitudinal fasciculus, MLF: middle longitudinal fasciculus, UF: uncinate fasciculus, IFG: inferior frontal gyrus, OFC: orbital frontal cortex, STG: superior temporal gyrus.

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