

Data supplement for: Taylor et al – Visual cortex in dementia with Lewy bodies: magnetic resonance imaging study

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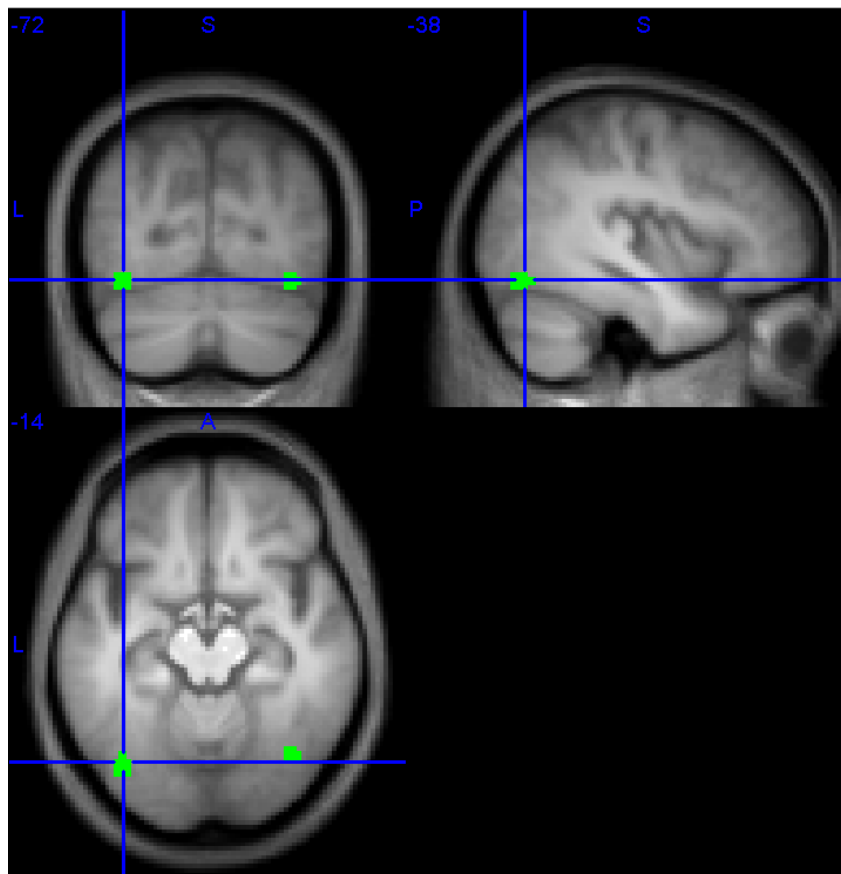


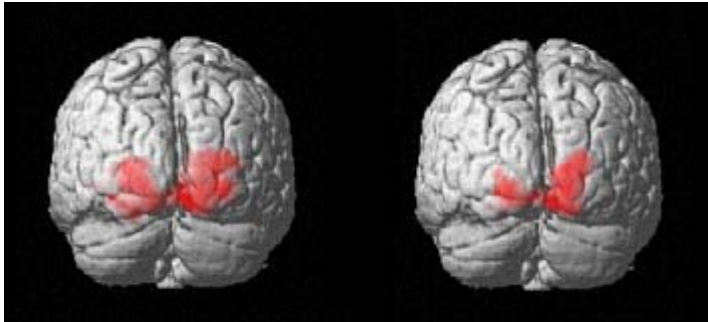
Fig. DS1. Image showing spatial position of the lateral occipital complex (LOC) region of interest (ROI) on a template brain. The LOC ROI was a 1 cm diameter sphere (20 voxels in volume) centred on the average of coordinates described in a number of previously published (Montreal Neurological Institute co-ordinates of central voxels: 38, -70, -15 and -39, -74, -15).¹⁸⁻²⁰

Table DS1 Beta parameter region of interest analysis comparing control group v. DLB group with regard to functional activations in all functional magnetic resonance imaging regions of interest (visual area V1, V2/3, V4, V5/MT, and lateral occipital complex (LOC)) to checkerboard (c_), motion (m_) and objects (o_) stimuli

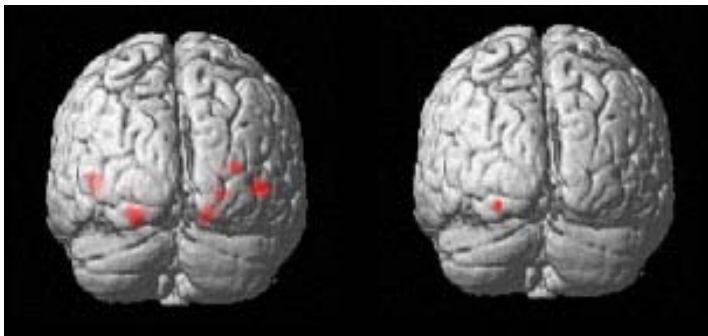
Region of interest	Control group, mean (s.e.)	DLB group, mean (s.e.)	P
c_V1	0.41 (0.08)	0.59 (0.07)	0.10
c_V23	0.68 (0.08)	0.72 (0.07)	0.71
c_V4	0.86 (0.1)	0.71 (0.11)	0.31
c_V5/MT	0.34 (0.10)	0.08 (0.10)	0.06
c_LOC	0.87 (0.14)	0.81 (0.17)	0.79
m_V1	0.01 (0.04)	-0.01 (0.03)	0.80
m_V23	0.09 (0.03)	0.05 (0.05)	0.35
m_V4	0.20 (0.04)	0.14 (0.04)	0.25
m_V5/MT	0.44 (0.07)	0.25 (0.05)	0.02
m_LOC	0.31 (0.07)	0.21 (0.07)	0.32
o_V1	-0.03 (0.05)	0.06 (0.07)	0.30
o_V23	0.02 (0.05)	0.05 (0.07)	0.73
o_V4	0.24 (0.06)	0.12 (0.08)	0.23
o_V5/MT	0.17 (0.06)	0.11 (0.06)	0.49
o_LOC	0.48 (0.09)	0.25 (0.11)	0.13

Control
group

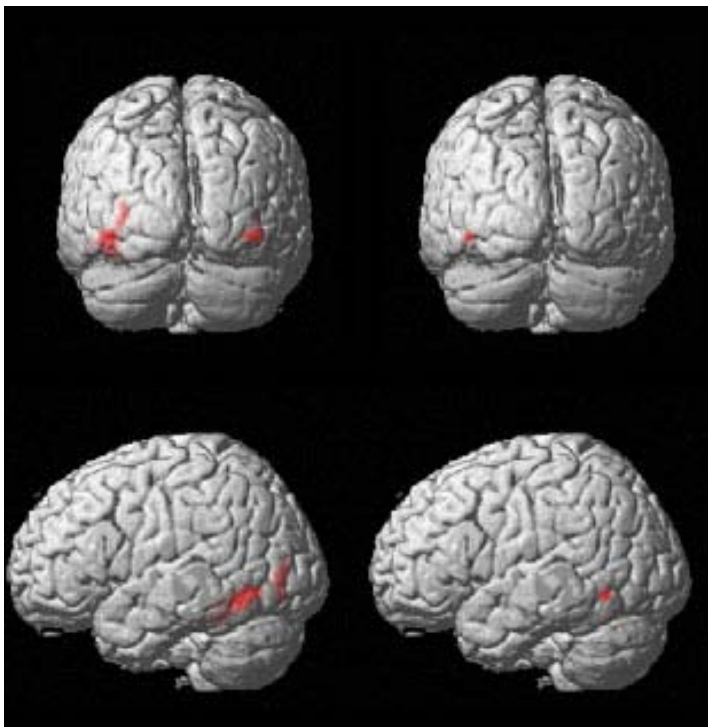
DLB
group



Checkerboard



Motion



Objects

Fig. DS2 Group activation maps for checkerboard, motion and objects stimuli.

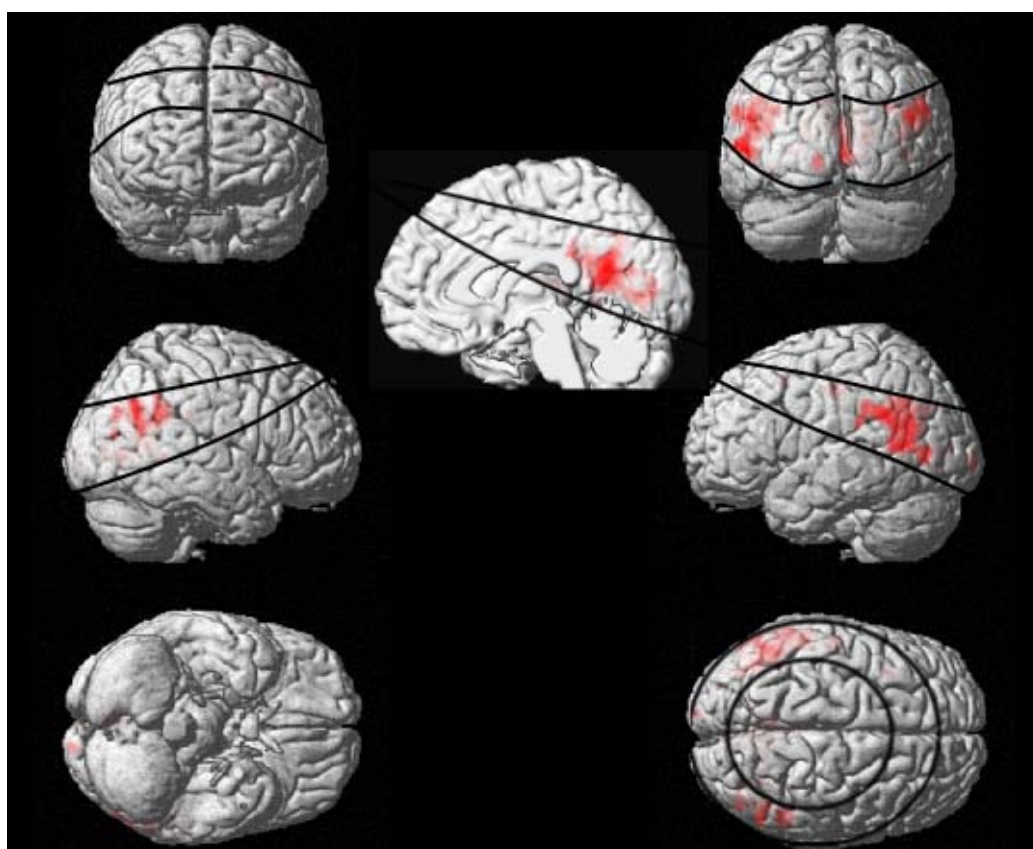
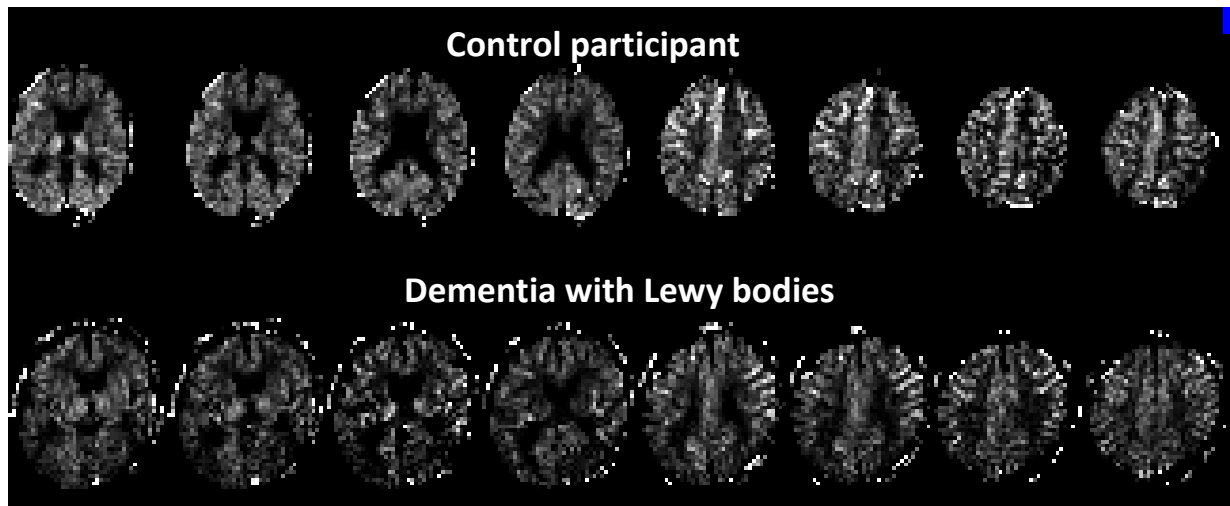


Fig. DS3 (a) Exemplar raw cerebral perfusion presented in slices 6mm relative to axis of segment acquisition in a control participant and a participant with dementia with Lewy bodies. There was evidence of reduced cerebral perfusion posteriorly in the patient with dementia compared with the control participant. (b) Statistical Parametric Mapping t-plot showing differences in cerebral perfusion thresholded at $P < 0.001$ uncorrected at group level between control and DLB groups (blue areas indicating reduced perfusion in the DLB group relative to controls) and superimposed on average brain template. Lines demarcate boundaries of overlap of perfusion slices sampled.

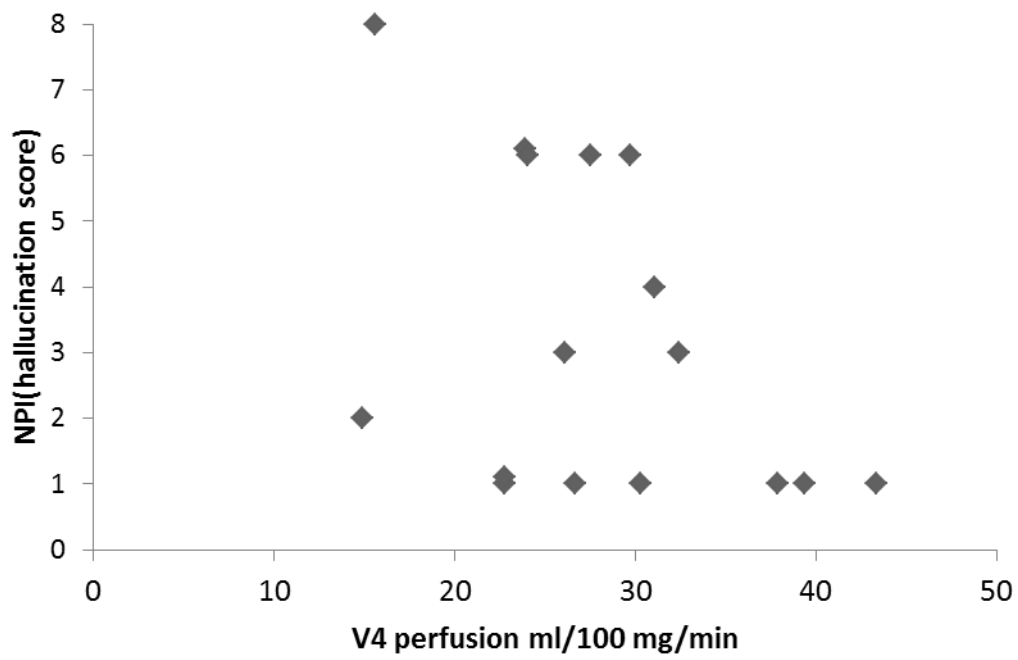


Fig. DS4 Scatterplot demonstrating negative correlation between Neuropsychiatric Inventory hallucination subscale score and V4 region of interest perfusion in the DLB group ($\rho=-0.52$, $P=0.04$).

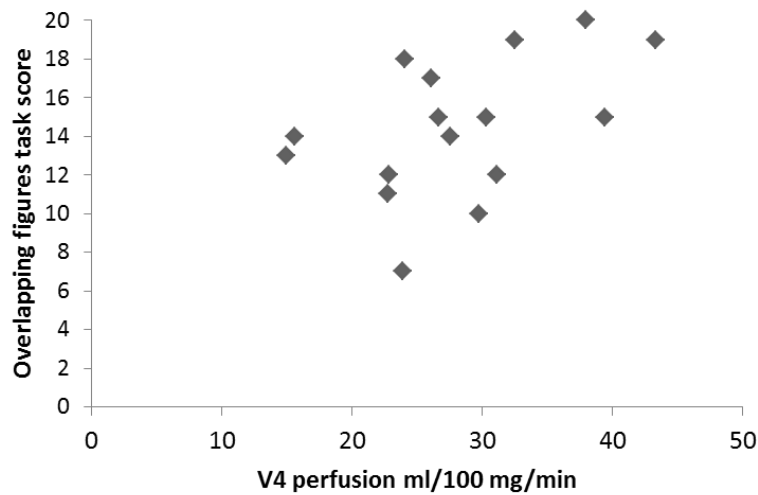
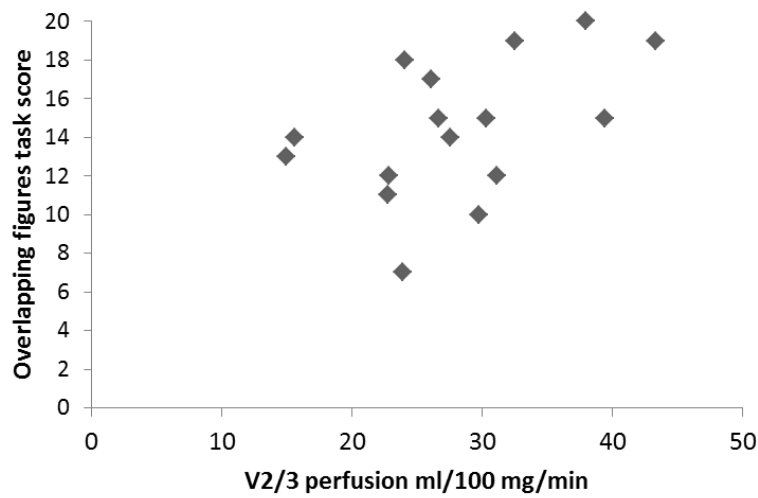
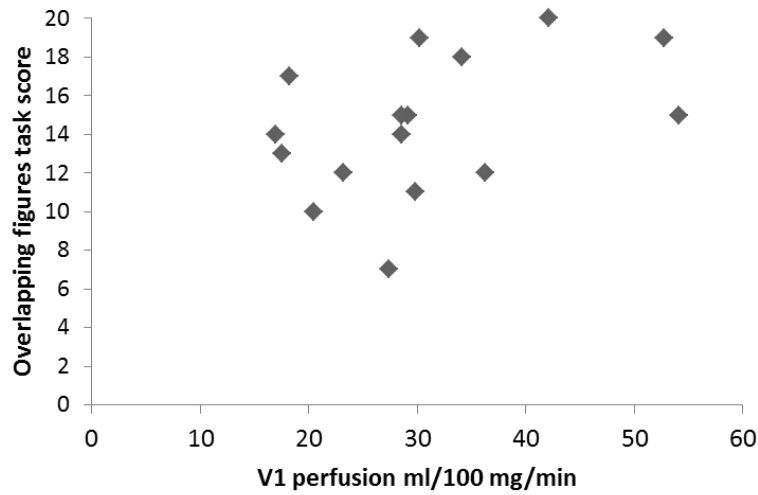


Fig. DS5 Scatterplots demonstrating positive correlations between overlapping figures tasks score and V1, V2/3 and V4 region of interest perfusion in the DLB group (V1, $\rho=0.49$, $P=0.05$; V2/3, $\rho=0.55$, $P=0.03$; V4, $\rho=0.55$, $P=0.03$).