

Online Table 1. fMRI regions of interest*.

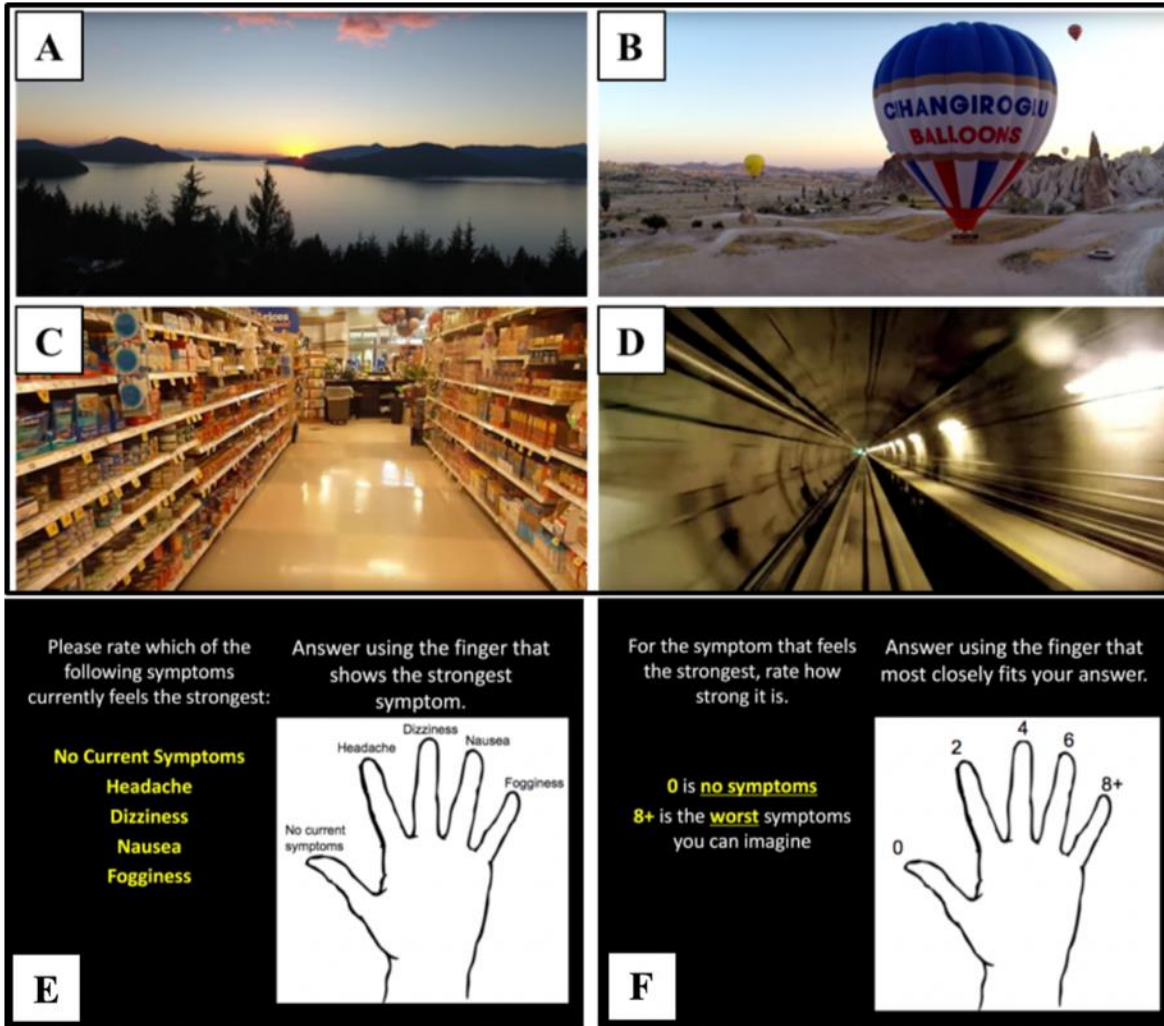
	<i>Right</i>	<i>Left</i>
Parieto-insular vestibular cortex (PIVC)	42, -24, 18	**
Frontal eye fields (FEF)	36, -12, 54	-38, -14, 52
Posterior hippocampus	25, -37, 0	-25, -37, 0
Middle temporal visual area (MT/V5)	46, -80, 2	-48, -76, 4
Middle frontal gyrus	40, 30, 42	-42, 24, 32
Inferior frontal gyrus	52, 28, 33	-44, 24, -2
Inferior parietal lobule	60, -26, 20	-46, -32, 22

*Spherical 5mm ROI in Montreal Neurological Institute coordinates

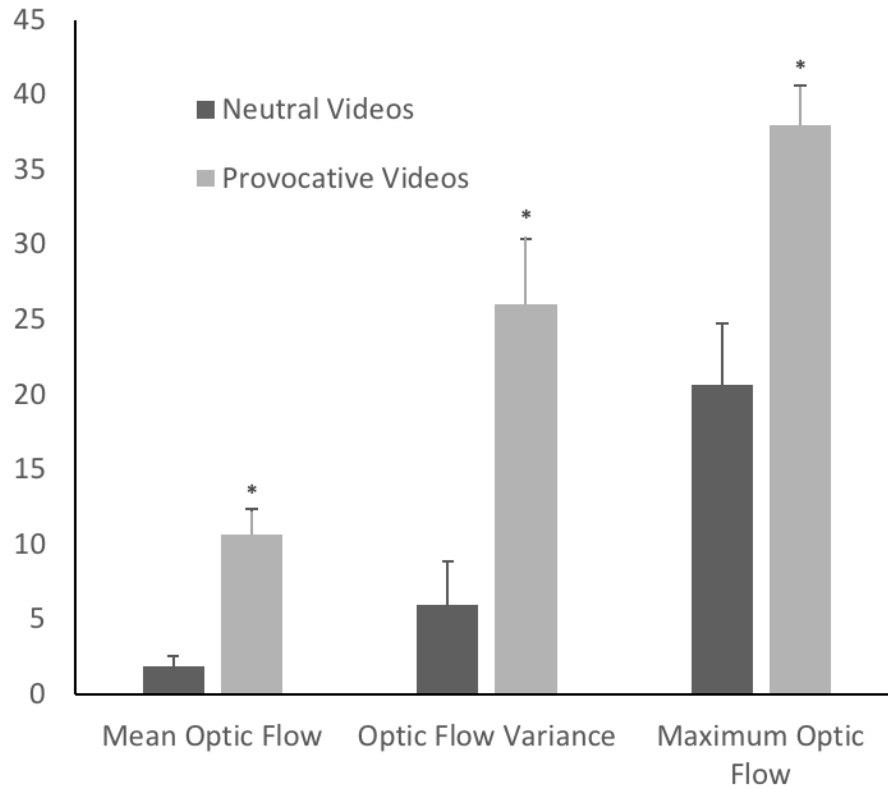
**Primary vestibular cortex (PIVC) lateralizes to right in right-handed individuals

Online Table 2. Localization of PCVMS>control provocative-neutral contrast fMRI results.

Harvard-Oxford Atlas Label	Hemisphere (R/L)	Max Z-score	MNI Max Z-score Location (mm)		
			x	y	z
<i>Cluster 1=2841 Voxels</i>					
Inferior temporal gyrus	R	3.25	54	-16	-28
Central opercular cortex	R	3.24	52	6	0
Insular cortex	R	3.22	46	10	-2
Central opercular cortex	R	3.15	52	-12	10
Central opercular cortex	R	3.09	50	-12	14
Precentral gyrus	R	2.94	60	0	30
Middle temporal gyrus	R	2.68	56	-20	-10
Supramarginal gyrus	R	2.66	67	-20	26
Inferior frontal gyrus	R	2.50	58	14	12
<i>Cluster 2=1165 Voxels</i>					
Central opercular cortex	L	3.30	-48	4	-2
Planum temporale	L	2.76	-46	-32	6
Planum polare	L	2.70	-46	-2	-8
Insular cortex	L	2.66	-40	-6	4
Central opercular cortex	L	2.63	-58	-8	8
Temporal pole	L	2.59	-48	10	-10
Temporal pole	L	2.48	-48	12	-22



Online Figure 1. Novel fMRI visual-vestibular paradigm. Example screen shots from ‘neutral’ (A, B) and ‘provocative’ (C, D) videos used in the paradigm. Subjects viewed a 30-second video and then answered two questions using a handheld MRI compatible response device about the strongest symptom type (E) and intensity (using a 10-point Likert scale divided into 2-point blocks; F), with each question slide being presented for 7.5 seconds for a total of 15 seconds.



Online Figure 2. Optic flow metrics of neutral and provocative videos used in visual-vestibular fMRI paradigm. The mean, variance, and maximum optic flow values were calculated for each 30-second neutral (black bars) and provocative video (gray bars). Bars represent mean values and error bars reflect standard error of means. All three metrics were significantly increased in provocative videos in comparison to neutral videos (two-tailed t-test, $*p < 0.01$).