

**Supplementary Table 1.** Outcome measures, by STN DBS conditions and DBS site (dorsal vs. ventral STN), excluding participants who received < 2.5V STN DBS.

<b>rmANOVA</b>		<b>Mean</b>		
<b>Result</b>	<b>Outcome measure</b>	<b>difference</b>	<b>d.f.</b>	<b>Sig. (2-tailed)</b>
		<b>(S.D.)</b>		
<b>Mood and motivation</b>				
<i>F</i> <sub>2,114</sub> =12.9, <i>p</i> < <b>0.001</b> *	Anxiety: Dorsal vs. OFF	7.5 (16.1)	57	<b>0.001</b>
	Anxiety: Ventral vs. OFF	9.6 (16.4)	57	<b>&lt;0.001</b>
	Anxiety: Dorsal vs. Ventral	-2.1 (12.5)	57	0.2
<i>F</i> <sub>2,114</sub> =1.9, <i>p</i> =0.16	Arousal: Dorsal vs. OFF	0 (0.2)		
	Arousal: Ventral vs. OFF	-0.04 (0.2)	N/A	N/A
	Arousal: Dorsal vs. Ventral	0.03 (0.1)		
<i>F</i> <sub>2,114</sub> =9.1, <i>p</i> < <b>0.001</b> *	Valence: Dorsal vs. OFF	0.1 (0.3)	57	<b>0.001</b>
	Valence: Ventral vs. OFF	0.1 (0.3)	57	<b>0.001</b>
	Valence: Dorsal vs. Ventral	-0.03 (0.2)	57	0.33
<i>F</i> <sub>2,114</sub> =4.3, <i>p</i> = <b>0.016</b>	Apathy: Dorsal vs. OFF	7.3 (22.0)	57	<b>0.01</b>
	Apathy: Ventral vs. OFF	6.8 (23.8)	57	<b>0.04</b>
	Apathy: Dorsal vs. Ventral	0.6 (17.3)	57	0.8

<b>Cognition</b>				
$F_{2,106}=1.1$ , $p=0.3$	GNG: Dorsal vs. OFF	0.03 (0.2)		
	GNG: Ventral vs. OFF	0.02 (0.2)	N/A	N/A
	GNG: Dorsal vs. Ventral	0.02 (0.2)		
$F_{2,112}=1.4$ , $p=0.2$	SDR: Dorsal vs. OFF	-1.7 (8.5)		
	SDR: Ventral vs. OFF	-1.5 (8.3)	N/A	N/A
	SDR: Dorsal vs. Ventral	-0.16 (8.3)		
<b>Movement</b>				
$F_{2,112}=25.1$ , $p<0.001^*$	Bradykinesia: Dorsal vs. OFF	-4.2 (3.8)	56	<0.001
	Bradykinesia: Ventral vs. OFF	-4.2 (3.6)	56	<0.001
	Bradykinesia: Dorsal vs. Ventral	0 (2.8)	56	0.2
$F_{2,114}=21.5$ , $p<0.001^*$	Body: Dorsal vs. OFF	-0.5 (0.7)	57	<0.001
	Body: Ventral vs. OFF	-0.5 (0.6)	57	<0.001
	Body: Dorsal vs. Ventral	-0.02 (0.6)	57	0.8
$F_{2,114}=27.8$ , $p<0.001^*$	Rigidity: Dorsal vs. OFF	-0.8 (1.1)	57	<0.001
	Rigidity: Ventral vs. OFF	-1.0 (1.2)	57	<0.001
	Rigidity: Dorsal vs. Ventral	0.2 (0.8)	57	0.06

$F_{2,114}=28.0$ , $p<0.001^*$	Tremor at Rest: Dorsal vs. OFF	-1.3 (1.7)	57	<b>&lt;0.001</b>
	Tremor at Rest: Ventral vs. OFF	-1.3 (1.8)	57	<b>&lt;0.001</b>
	Tremor at Rest: Dorsal vs. Ventral	-0.03 (1.1)	57	0.8
$F_{2,114}=59.0$ , $p<0.001^*$	UPDRS: Total Dorsal vs. OFF	-4.2 (3.8)	57	<b>&lt;0.001</b>
	UPDRS: Total Ventral vs. OFF	-4.2 (3.6)	57	<b>&lt;0.001</b>
	UPDRS: Total Dorsal vs. Ventral	0.03 (2.8)	57	0.9

\*,  $p$ -value survives multiple comparison correction (Bonferroni,  $\alpha = 0.005$ ). rmANOVA = repeated measures ANOVA. All subjects with missing/incomplete data in any measure were removed.