

Supplementary figure legends

Supplementary Figure 1. Electrodes localization. Panel A: Presurgical planning (coronal MRI) showing the subthalamic nucleus (outlined in red), intended target (green circle) and intended trajectory (dashed red line). Panels B,C,D: Postoperative fusion of preoperative MR-scan and postoperative CT-scan (B: coronal, C: sagittal, D: axial) demonstrating the final location of the 3389 Medtronic® DBS lead within the subthalamic nucleus (outlined in red) in one patient. Both planning and fusion were performed with Leksell SurgiPlan® 10.1.1 software (Elekta Instruments, Stockholm, Sweden).

Supplementary Figure 2. LFP responses to the reward cue. A, Time-frequency spectrogram of the LFP activity aligned on the reward cue onset, averaged over all subjects and treatment conditions. B, Trial-by-trial LFP power in the low frequency range (<11Hz) aligned on the reward cue onset (indicated with the dashed line) for two example subjects.

Supplementary Figure 3. LFP responses to the effort cue. A, Time-frequency spectrogram of the LFP activity aligned on the effort cue onset, averaged over all subjects and treatment conditions. B, Average LFP response to the effort cue as a function of the effort (x-axis) and reward conditions (color-coded).

Supplementary Figure 4. LFP responses in the control task. A, Acceptance rate as a function of the reward, effort and treatment conditions in the control task. B, Reaction times as a function of net subjective value in the control task, both in the ON (green) and OFF (red) dopa conditions. The solid black curve was obtained by smoothing the RT values sorted in ascending order of subjective value. C, Time-

frequency spectrogram of the LFP activity aligned on the reward cue onset in the control task, averaged over all subjects and treatment conditions. D, Cluster-based analysis of the reward cue-aligned LFP response in the control task. E, Effect of reward on LFP response in the control task. Same convention as Figure 2B. F, Effect of the subjective value of reward on the LFP response in the control task. Same convention as Figure 2D. G, Time-frequency spectrogram of the LFP activity aligned on the effort cue onset in the control task, averaged over all subjects and treatment conditions. H, Cluster-based analysis of the effort cue-aligned LFP response in the control task. I, Effect of effort condition on the LFP response to the effort cue during the control task. Same convention as in Figure 3B. J, Effect of net subjective value on the LFP response. Same convention as in Figure 3D. H, Acceptance rate as a function of the LFP response to the effort cue in the control task, separated in 5 quintiles.