Inventory of Supplemental Information

# Indirect pathway of caudal basal ganglia for rejection of valueless visual objects

**Hyoung F. Kim, Hidetoshi Amita and Okihide Hikosaka**

Contains 4 Supplemental Figures

**Supplemental figures**

- Figure S1, related to Figure 1 and 5: CDt projections to cvGPe and cdlSNr
- Figure S2, related to Figure 4: Flexible value coding in GPe
- Figure S3, related to Figure 6: Orthodromic responses of cvGPe neurons by CDt stimulation.
- Figure S4, related to Figure 6: Orthodromic responses of cdlSNr neurons by cvGPe stimulation.

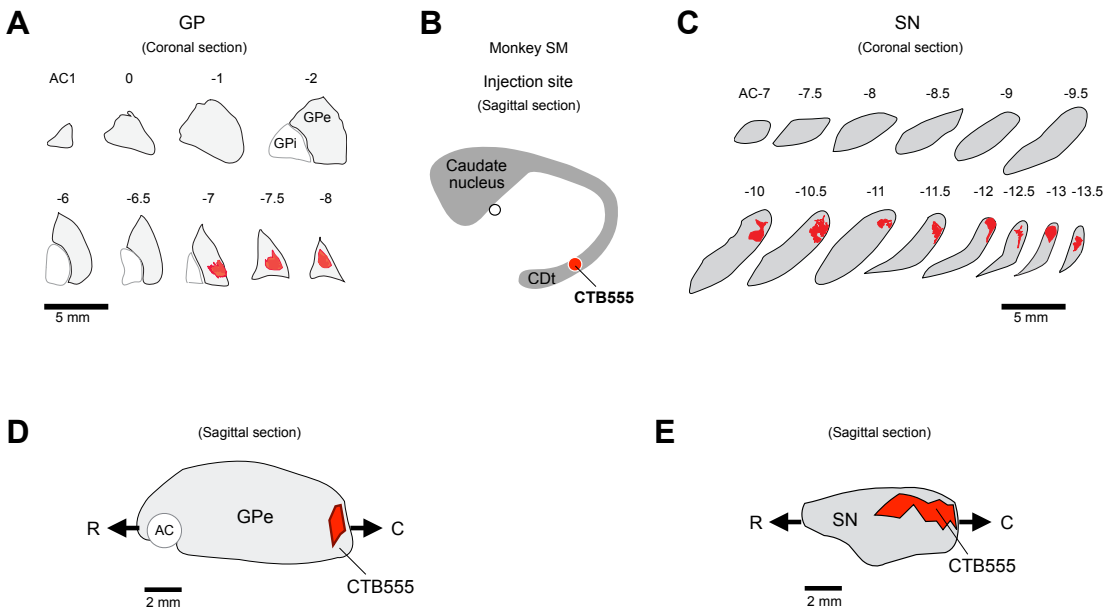


**Figure S1 (related to Figure 1). CDt projections to cvGPe and cdlSNr.**

Data in monkey SM which are similar to data in monkey ZO (Fig. 1 and Fig. 5E-G). **(A)** Within GPe, anterograde axon terminals from CDt were localized in cvGPe. **(B**) CTB555 injection site in CDt in monkey SM. **(C)** Within SN, anterograde axon terminals from CDt were localized in cdlSNr. **(D,E)** Sagittal view of CDt-projection site in GPe (**D**) and SN (**E**).

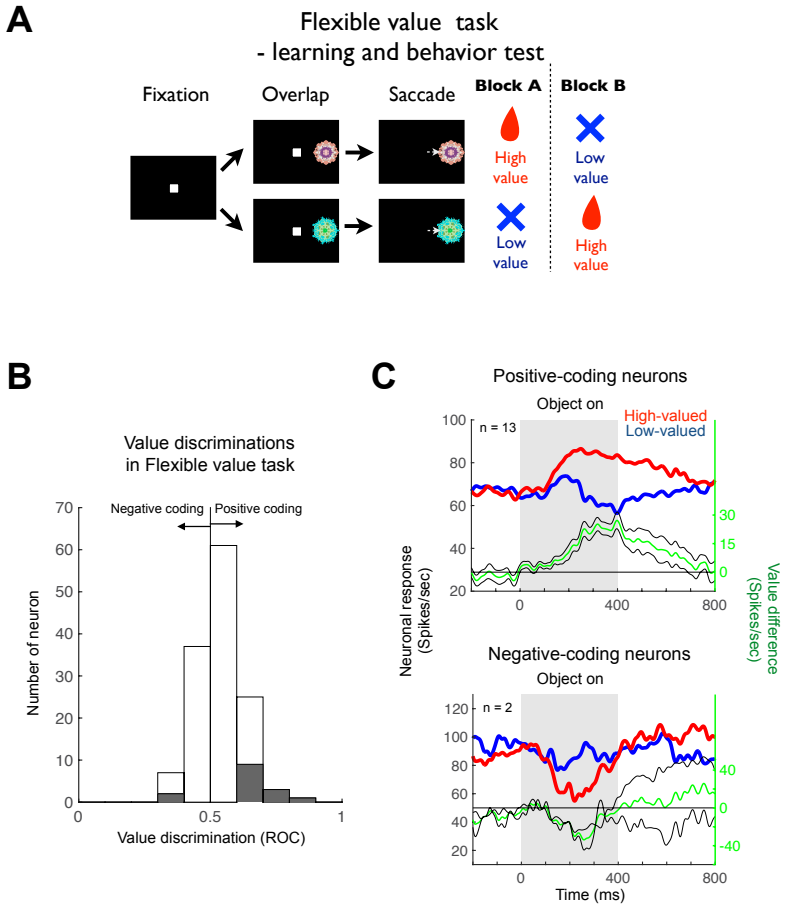


**Figure S2 (related to Figure 4). Flexible value coding in GPe.**

**(A)** Flexible value task. An example set of fractal objects whose values were flexibly reversed across blocks of trials: high-valued (with reward outcome) and low-valued (with no reward outcome). **(B)** Flexible value discrimination of GPe neurons. For each neuron, the difference in response to high-valued and low-valued objects was calculated as ROC area. Among the 134 neurons, 15 neurons showed statistically significant flexible value coding (shown by gray area) ($p < 0.05$, Wilcoxon rank-sum test). **(C)** Population responses, shown separately for positive-coding neurons (top, n=13) and negative-coding neurons (right, n=2). The same format as in Fig. 4C.

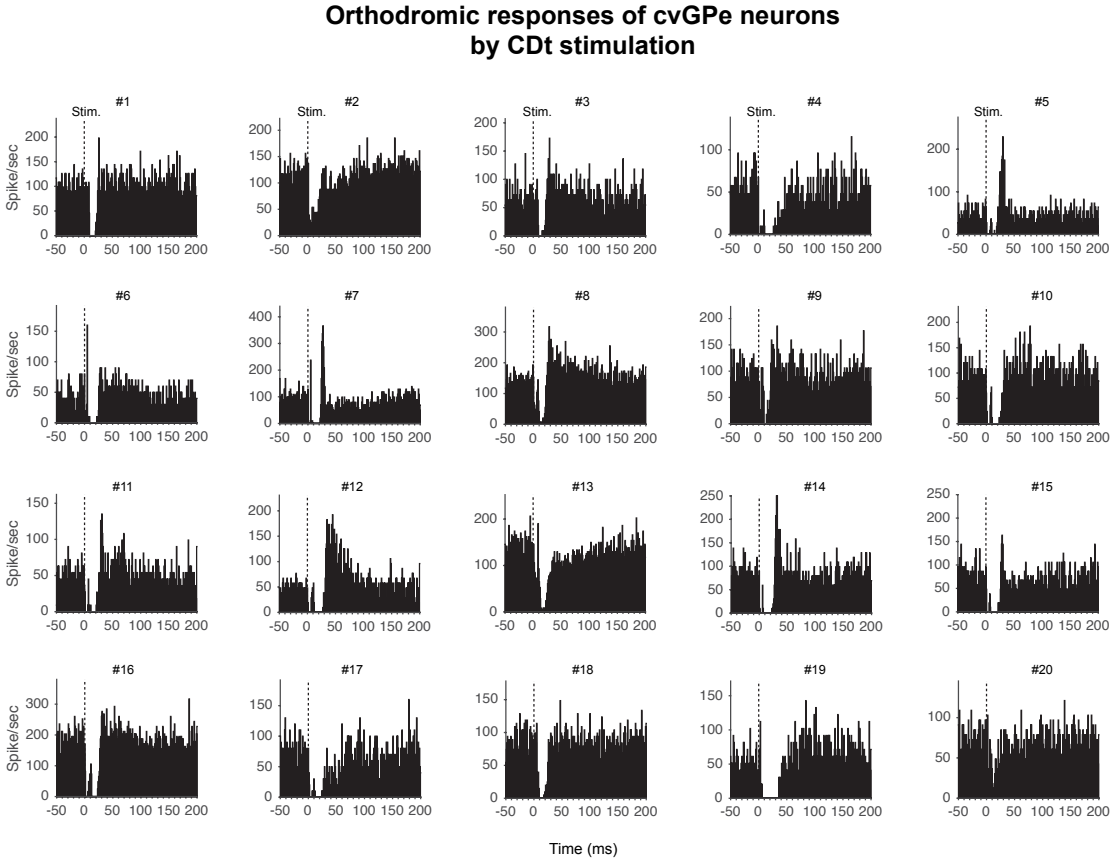


**Figure S3 (related to Figure 6). Orthodromic responses of 20 cvGPe neurons by CDt stimulation.**

Among 20 orthordromically activated neurons in cvGPe, 12 neurons (#1-#12) encoded stable values of fractal objects (See Fig. 6D).

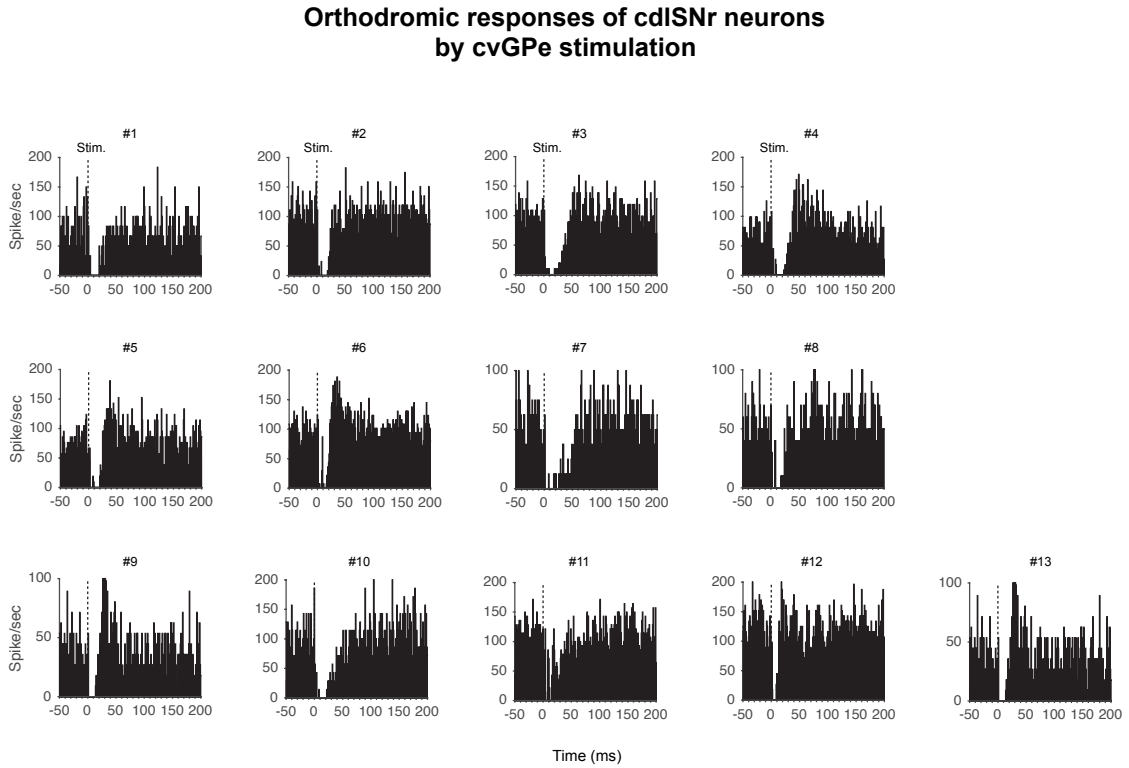


**Figure S4 (related to Figure 6). Orthodromic responses of 13 cdlSNr neurons by cvGPe stimulation.**

Among 13 orthordromically activated neurons in cdlSNr, 6 neurons (#1-#6) encoded stable values of fractal objects (See Fig. 6G).