

## Neuron, Volume 58

### Supplemental Data

#### Striatal Activity Underlies Novelty-Based Choice in Humans

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Table S1.

Prediction error response: Anatomical locations of regions correlating with the standard TD model. Data are thresholded at  $p < 0.001$ , uncorrected, and only clusters with  $> 5$  voxels are reported.

Area	Left / Right	MNI coordinates			T value
		x	y	z	
Insula	L	-28	22	8	4.09
Ventral putamen	R	16	12	-4	5.25
	L	-20	14	-10	4.25
Thalamus	L	-12	-14	6	4.63
	L	-20	-22	-2	4.47
	R	18	-26	-2	4.38
Parahippocampal gyrus, BA 19	L	-20	-74	-4	7.1
Middle occipital gyrus, BA 19	L	-32	-82	12	4.12
Middle occipital gyrus, BA 18	R	22	-86	-14	10.94

Table S2.

Novelty bonus response: Anatomical locations of regions with activity correlating with additional prediction error due to inclusion of a novelty bonus. Data are thresholded at  $p < 0.001$ , uncorrected, and only clusters with  $> 5$  voxels are reported.

Area	Left / Right	MNI coordinates			T value
		x	y	z	
Middle frontal gyrus, BA 46	R	46	34	18	<b>4.41</b>
Inferior frontal gyrus, BA 47	L	-14	30	-18	<b>5.54</b>
	R	32	26	2	<b>4.11</b>
Nucleus accumbens	R	14	20	-10	<b>4.63</b>
Insula, BA 13	R	36	26	20	<b>5.48</b>
	R	38	20	8	<b>4.72</b>
	R	40	4	22	<b>4.27</b>
	R	50	-22	24	<b>4.3</b>
	L	-38	-40	22	<b>5.41</b>
Superior frontal gyrus, BA 8	L	-6	12	54	<b>5.29</b>
Inferior frontal gyrus, BA 9	R	46	6	32	<b>4.36</b>
Medial frontal gyrus, BA 6	R	8	-2	54	<b>4.5</b>
Precentral gyrus, BA 6	L	-38	0	26	<b>5.95</b>
Cingulate gyrus, BA 32	R	12	8	44	<b>6.13</b>
Inferior parietal lobule, BA 40	L	-58	-22	26	<b>4.02</b>
Postcentral gyrus, BA 3	L	-32	-24	50	<b>4.29</b>
Postcentral gyrus, BA 2	R	40	-28	42	<b>5.71</b>
Inferior parietal lobule, BA 40	L	-42	-34	44	<b>4.62</b>
Posterior cingulate, BA 31	L	-20	-60	20	<b>6.66</b>
Middle occipital gyrus, BA 19	L	-30	-68	-12	<b>15.72</b>
	R	44	-74	2	<b>4.66</b>
	L	-42	-80	14	<b>4.15</b>
Thalamus	R	8	-12	4	<b>5.47</b>
	L	-18	-20	4	<b>5.32</b>
	L	-6	-26	-6	<b>5.27</b>

Figure S1.

Activation in left ventral striatum correlating with individual novelty seeking as measured by the TPQ.

