**Other supplementary material**



*Supplementary Figure 1.* Schematic of task sequence (neutral block). Background and text colours are inverted. The chosen face was highlighted with a yellow box surrounding it.

Supplementary Table 1. *Significant clusters of group differences in reward prediction error (RPE) related activation during wins*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Region | Side | k | z | MNI  |
| **Win RPE: HC > NTR** |  |  |  |  |  |  |
| Cerebellum | L&R | 1736 | 3.69 | 0 | -54 | -20 |
|  Lingual gyrus |  |  |  | 2 | -74 | -14 |
|  Occipital fusiform gyrus |  |  |  | 16 | -78 | -12 |
|  Cerebellum |  |  |  | -24 | -80 | -26 |
| Cerebellum |  |  |  | 16 | -64 | -18 |
|  Occipital pole |  |  |  | 12 | -90 | 4 |
| Angular gyrus | R | 690 | 3.41 | 50 | -66 | 32 |
|  Supramarginal gyrus |  |  |  | 42 | -48 | 4 |
|  Angular gyrus |  |  |  | 46 | -54 | 18 |
|  Angular gyrus |  |  |  | 34 | -50 | 38 |
|  Angular gyrus |  |  |  | 42 | -54 | 18 |
|  Angular gyrus |  |  |  | 54 | -54 | 18 |
| **Win RPE: TRS > NTR** |  |  |  |  |  |  |
| Precentral gyrus | R | 991 | 3.75 | 64 | 2 | 26 |
|  Precentral gyrus |  |  |  | 54 | -4 | 28 |
|  Supramarginal gyrus |  |  |  | 62 | -28 | 22 |
|  Postcentral gyrus |  |  |  | 62 | -6 | 30 |
|  Precentral gyrus |  |  |  | 48 | -6 | 30 |
|  Precentral gyrus |  |  |  | 58 | 0 | 12 |
| Cerebellum | L&R | 1988 | 3.77 | 4 | -54 | -20 |
|  Cerebellum |  |  |  | -18 | -38 | -24 |
|  Cerebellum |  |  |  | 16 | -46 | -22 |
|  Cerebellum |  |  |  | -10 | -44 | -22 |
|  Cerebellum |  |  |  | 12 | -46 | -22 |
|  Cerebellum |  |  |  | 12 | -54 | -34 |

Supplementary Table 2. *Greater effect of emotional bias on loss-related reward prediction error (RPE) signal in treatment resistant schizophrenia (TRS) compared to non-treatment resistant schizophrenia (NTR)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Region | Side | k | z | MNI  |
| **Loss RPE (emotional > neutral): Effect of emotional bias TRS > NTR** |  |  |  |  |  |  |
| Thalamus | 1373 | L | 3.52 | -6 | -10 | 14 |
|  Caudate |  |  |  | -18 | -4 | 16 |
|  Caudate |  |  |  | -16 | 0 | 16 |
|  Thalamus |  |  |  | -12 | -10 | 16 |
| Thalamus |  |  |  | -20 | -22 | 18 |
|  Thalamus |  |  |  | 0 | -18 | 16 |