**Supplementary material**

**Supplementary Table 1** Between-group contrasts for cross-sectional (baseline) differences in speed-accuracy tradeoff in the Mental Rotation task. Tradeoff is defined as extra time taken (ms) to respond correctly per 10% absolute increase in overall accuracy. Contrasts are means (95% confidence intervals) and are adjusted for age, sex, education and site.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | PreA vs. Control | P | PreB vs. Control | P | HD1 vs. Control | P | HD2 vs. Control | P |
| SAME: |  |  |  |  |  |  |  |  |
| 65 | 132 (-94, 357) | 0.2522 | -126 (-331, 78) | 0.2249 | -160 (-413, 93) | 0.2141 | -140 (-322, 42) | 0.1305 |
| 125 | 145 (-73, 363) | 0.1929 | -144 (-405, 117) | 0.2790 | -61 (-402, 280) | 0.7245 | -88 (-447, 271) | 0.6308 |
| MIRROR: |  |  |  |  |  |  |  |  |
| 65 | 239 (3, 476) | 0.0476 | 10 (-241, 260) | 0.9388 | 69 (-146, 284) | 0.5287 | -103 (-351, 145) | 0.4165 |
| 125 | -66 (-280, 148) | 0.5454 | 20 (-187, 228) | 0.8467 | -19 (-311, 273) | 0.8990 | -149 (-451, 154) | 0.3353 |

PreA = premanifest Huntington’s disease far from diagnosis; PreB = premanifest Huntington’s disease near diagnosis; HD1 = Huntington’s disease stage-1; HD2 = Huntington’s disease stage-2; P=significance p-value.