**Altered structure-function coupling in the connectome of medication-naïve adults with childhood onset attention-deficit hyperactivity disorder**

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**Supplementary information**

**Supplementary Table 1.** Table of Schaefer 214 coordinates, network assignments, hub status for CTRL and ADHD

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | MNI | | |  | Control hubs | | ADHD hubs | |
| Node | X | Y | Z | Network | Group | Individual (%) | Group | Individual (%) |
| 1 | -25.4 | -76.7 | -13.5 | 1 | 1 | 34.7 | 1 | 25.6 |
| 2 | -26.3 | -95 | -12.3 | 1 | 0 | 3.4 | 0 | 6.4 |
| 3 | -5.5 | -92.7 | -4.1 | 1 | 1 | 55.1 | 1 | 56.4 |
| 4 | -22.6 | -96.8 | 5.9 | 1 | 0 | 14.4 | 0 | 19.2 |
| 5 | -39.9 | -84.5 | 10.2 | 1 | 0 | 0.8 | 0 | 2.6 |
| 6 | -23.1 | -87.1 | 24 | 1 | 1 | 22.9 | 1 | 30.8 |
| 7 | -23.8 | -53 | -9.1 | 1 | 0 | 17.8 | 1 | 15.4 |
| 8 | -9.6 | -67 | -4.6 | 1 | 1 | 31.4 | 1 | 42.3 |
| 9 | -14.1 | -44.7 | -2.9 | 1 | 0 | 10.2 | 0 | 6.4 |
| 10 | -11.3 | -69.8 | 7.5 | 1 | 1 | 51.7 | 1 | 52.6 |
| 11 | -12.1 | -72.7 | 22.4 | 1 | 0 | 4.2 | 0 | 12.8 |
| 12 | -7.5 | -87.5 | 27.3 | 1 | 1 | 88.1 | 1 | 97.4 |
| 13 | -6.9 | -12.4 | 46.4 | 1 | 0 | 0.8 | 0 | 2.6 |
| 14 | -48.2 | -28.4 | 57 | 1 | 0 | 0 | 0 | 2.6 |
| 15 | -39.4 | -24 | 57.5 | 2 | 0 | 3.4 | 0 | 1.3 |
| 16 | -31.3 | -19.8 | 63.8 | 2 | 0 | 7.6 | 0 | 7.7 |
| 17 | -26.1 | -38.1 | 67.4 | 2 | 0 | 0 | 0 | 0 |
| 18 | -20.3 | -10.6 | 68.1 | 2 | 0 | 2.5 | 0 | 1.3 |
| 19 | -6.6 | -30.5 | 66.3 | 2 | 0 | 38.1 | 0 | 35.9 |
| 20 | -19.1 | -30.8 | 67.7 | 2 | 0 | 0 | 0 | 0 |
| 21 | -50.5 | -5.1 | -2.1 | 2 | 1 | 44.1 | 0 | 34.6 |
| 22 | -52.6 | -24.9 | 9.3 | 2 | 0 | 21.2 | 0 | 12.8 |
| 23 | -36.9 | -21 | 15.3 | 2 | 0 | 0 | 0 | 0 |
| 24 | -54.9 | -4.5 | 10.2 | 2 | 0 | 6.8 | 0 | 3.8 |
| 25 | -55.7 | -40 | 20.5 | 2 | 0 | 3.4 | 0 | 2.6 |
| 26 | -52.9 | -22.4 | 18.4 | 2 | 0 | 0 | 0 | 0 |
| 27 | -56.2 | -8.2 | 30.4 | 2 | 0 | 1.7 | 0 | 0 |
| 28 | -47.3 | -8.9 | 46.3 | 2 | 0 | 0.8 | 0 | 1.3 |
| 29 | -43.4 | -48.2 | -19.4 | 2 | 1 | 49.2 | 1 | 44.9 |
| 30 | -45.3 | -69.4 | -8.5 | 2 | 0 | 10.2 | 0 | 10.3 |
| 31 | -47.1 | -69.7 | 9.7 | 3 | 0 | 2.5 | 0 | 1.3 |
| 32 | -25.8 | -69.9 | 38.2 | 3 | 0 | 5.9 | 0 | 3.8 |
| 33 | -16.7 | -73 | 54.1 | 3 | 0 | 44.1 | 0 | 19.2 |
| 34 | -29.1 | -59.8 | 59.4 | 3 | 0 | 6.8 | 0 | 6.4 |
| 35 | -54 | -26.4 | 42 | 3 | 0 | 0 | 0 | 0 |
| 36 | -40.7 | -35.1 | 47.8 | 3 | 0 | 0 | 0 | 0 |
| 37 | -30.7 | -46.3 | 62.5 | 3 | 0 | 5.1 | 0 | 3.8 |
| 38 | -17.2 | -52.7 | 68.4 | 3 | 0 | 10.2 | 0 | 14.1 |
| 39 | -31.6 | -4.3 | 53.2 | 3 | 0 | 0.8 | 0 | 1.3 |
| 40 | -61 | -25.4 | 28.6 | 3 | 0 | 2.5 | 0 | 2.6 |
| 41 | -39.2 | -3.9 | -3.6 | 3 | 1 | 66.1 | 1 | 60.3 |
| 42 | -38.9 | 0.9 | 11 | 3 | 0 | 0 | 0 | 0 |
| 43 | -51 | 8.7 | 10.5 | 3 | 0 | 0.8 | 0 | 1.3 |
| 44 | -10.7 | -35.3 | 46.3 | 4 | 0 | 5.1 | 0 | 9 |
| 45 | -5.7 | 9.6 | 41.4 | 4 | 0 | 8.5 | 0 | 7.7 |
| 46 | -6.3 | -3.1 | 65.1 | 4 | 0 | 3.4 | 0 | 10.3 |
| 47 | -59.7 | -39.4 | 36.3 | 4 | 0 | 0 | 0 | 0 |
| 48 | -28.6 | 42.8 | 31.4 | 4 | 0 | 11 | 0 | 9 |
| 49 | -33.5 | 20.4 | 4.8 | 4 | 0 | 5.1 | 0 | 2.6 |
| 50 | -5.6 | 30 | 24.3 | 4 | 1 | 26.3 | 0 | 26.9 |
| 51 | -23.7 | 21.7 | -19.9 | 4 | 0 | 5.9 | 0 | 7.7 |
| 52 | -9.4 | 35.5 | -20.4 | 4 | 0 | 11 | 0 | 16.7 |
| 53 | -29.3 | -5.8 | -38.6 | 4 | 1 | 77.1 | 1 | 70.5 |
| 54 | -45.4 | -20.7 | -30.3 | 4 | 0 | 47.5 | 1 | 42.3 |
| 55 | -27.5 | 10 | -34.2 | 5 | 0 | 35.6 | 1 | 41 |
| 56 | -42.4 | 7.7 | -18.8 | 5 | 0 | 14.4 | 0 | 10.3 |
| 57 | -57 | -60.2 | -1.4 | 5 | 0 | 14.4 | 0 | 12.8 |
| 58 | -34.8 | -62.3 | 48 | 5 | 0 | 4.2 | 0 | 1.3 |
| 59 | -45.3 | -41.7 | 46.5 | 5 | 0 | 0 | 0 | 0 |
| 60 | -33.3 | -48.9 | 47.2 | 5 | 0 | 4.2 | 0 | 0 |
| 61 | -22.5 | 5.6 | 61.4 | 6 | 0 | 2.5 | 0 | 6.4 |
| 62 | -41.8 | 40.2 | 16.5 | 6 | 0 | 16.1 | 0 | 23.1 |
| 63 | -44.3 | 20.1 | 27.3 | 6 | 0 | 5.9 | 0 | 2.6 |
| 64 | -47.7 | 5.6 | 28.9 | 6 | 0 | 3.4 | 0 | 1.3 |
| 65 | -42.6 | 6 | 43.5 | 6 | 0 | 0 | 0 | 0 |
| 66 | -3.1 | 5.3 | 29 | 6 | 0 | 2.5 | 0 | 1.3 |
| 67 | -60.9 | -42.8 | -13.3 | 6 | 0 | 6.8 | 0 | 6.4 |
| 68 | -52.9 | -50.9 | 45.8 | 6 | 0 | 0 | 0 | 0 |
| 69 | -39.7 | 18.7 | 49.5 | 6 | 0 | 10.2 | 0 | 2.6 |
| 70 | -41.8 | 49.5 | -5.8 | 6 | 0 | 8.5 | 0 | 11.5 |
| 71 | -27.5 | 58 | 8 | 6 | 0 | 16.9 | 0 | 11.5 |
| 72 | -9.5 | -73.1 | 37.4 | 6 | 0 | 31.4 | 0 | 33.3 |
| 73 | -5.6 | -59.3 | 57.1 | 6 | 0 | 29.7 | 0 | 28.2 |
| 74 | -4.7 | -28.9 | 26.9 | 7 | 0 | 14.4 | 0 | 20.5 |
| 75 | -45.9 | -65.7 | 38.2 | 7 | 0 | 12.7 | 0 | 11.5 |
| 76 | -23.7 | 24.7 | 49 | 7 | 0 | 0.8 | 0 | 2.6 |
| 77 | -5.3 | -55 | 27.1 | 7 | 1 | 38.1 | 0 | 32.1 |
| 78 | -3.8 | -29.4 | 36.6 | 7 | 0 | 5.9 | 0 | 2.6 |
| 79 | -6.3 | -54.5 | 41.9 | 7 | 0 | 9.3 | 0 | 6.4 |
| 80 | -5.8 | 35.8 | -9.7 | 7 | 0 | 12.7 | 0 | 20.5 |
| 81 | -13.2 | 62.6 | -5.7 | 7 | 1 | 89.8 | 1 | 83.3 |
| 82 | -6.3 | 44.5 | 7.3 | 7 | 0 | 16.9 | 0 | 14.1 |
| 83 | -46.6 | 8.2 | -32.3 | 7 | 1 | 89 | 1 | 89.7 |
| 84 | -60.3 | -18.8 | -22.6 | 7 | 0 | 16.1 | 1 | 14.1 |
| 85 | -56.4 | -5.8 | -12.2 | 7 | 0 | 18.6 | 0 | 16.7 |
| 86 | -58 | -30.4 | -3.5 | 7 | 1 | 11.9 | 0 | 9 |
| 87 | -56.9 | -53.8 | 28.2 | 7 | 0 | 0 | 0 | 0 |
| 88 | -8.4 | 58.5 | 19.7 | 7 | 1 | 57.6 | 0 | 51.3 |
| 89 | -11.1 | 46.4 | 45 | 7 | 0 | 22 | 0 | 25.6 |
| 90 | -3.5 | 33.3 | 43.2 | 7 | 0 | 16.9 | 0 | 11.5 |
| 91 | -9.3 | 17 | 63.2 | 7 | 0 | 16.9 | 0 | 7.7 |
| 92 | -34.9 | 20.8 | -13 | 7 | 1 | 20.3 | 0 | 19.2 |
| 93 | -31.8 | 42.4 | -13.4 | 7 | 0 | 0 | 0 | 0 |
| 94 | -45.9 | 31 | -7.4 | 7 | 0 | 4.2 | 0 | 7.7 |
| 95 | -51.2 | 22.6 | 7.9 | 7 | 0 | 21.2 | 0 | 28.2 |
| 96 | -38.4 | -79.4 | 31.6 | 7 | 0 | 12.7 | 0 | 17.9 |
| 97 | -11.1 | -56 | 13.4 | 7 | 0 | 22 | 0 | 23.1 |
| 98 | -25.9 | -31.5 | -17.9 | 7 | 1 | 70.3 | 1 | 61.5 |
| 99 | -58.2 | -41.9 | 7.4 | 7 | 0 | 5.9 | 0 | 6.4 |
| 100 | -48.7 | -57.4 | 17.9 | 7 | 0 | 0 | 0 | 0 |
| 101 | 28.7 | -68.5 | -12.5 | 1 | 1 | 37.3 | 1 | 35.9 |
| 102 | 48.6 | -71.5 | -6 | 1 | 0 | 3.4 | 0 | 2.6 |
| 103 | 11.3 | -92.1 | -5 | 1 | 0 | 57.6 | 0 | 66.7 |
| 104 | 30.3 | -93.6 | -3.8 | 1 | 0 | 13.6 | 0 | 16.7 |
| 105 | 42.3 | -79.8 | 9.7 | 1 | 0 | 0 | 0 | 0 |
| 106 | 19.4 | -90.2 | 21.4 | 1 | 1 | 59.3 | 1 | 65.4 |
| 107 | 12.4 | -64.3 | -4.6 | 1 | 0 | 25.4 | 1 | 37.2 |
| 108 | 16.3 | -46.3 | -1.3 | 1 | 0 | 19.5 | 0 | 15.4 |
| 109 | 8.5 | -75 | 8.1 | 1 | 0 | 26.3 | 1 | 26.9 |
| 110 | 21.1 | -59.9 | 7.5 | 1 | 0 | 14.4 | 0 | 17.9 |
| 111 | 11.3 | -73.8 | 25.4 | 1 | 1 | 33.1 | 1 | 32.1 |
| 112 | 16.2 | -84.6 | 39.4 | 1 | 1 | 62.7 | 1 | 62.8 |
| 113 | 50.9 | -22.4 | 51.8 | 1 | 0 | 0.8 | 0 | 0 |
| 114 | 46.7 | -11 | 48 | 1 | 0 | 0 | 0 | 0 |
| 115 | 7 | -10.9 | 51.6 | 1 | 0 | 0.8 | 0 | 0 |
| 116 | 39.2 | -23.7 | 57.5 | 2 | 0 | 0 | 0 | 0 |
| 117 | 31.7 | -40.6 | 63.4 | 2 | 0 | 0.8 | 0 | 0 |
| 118 | 32 | -19.7 | 64.4 | 2 | 0 | 1.7 | 0 | 1.3 |
| 119 | 29 | -34.1 | 65.4 | 2 | 0 | 0 | 0 | 1.3 |
| 120 | 22.4 | -8.8 | 67.2 | 2 | 0 | 6.8 | 0 | 3.8 |
| 121 | 10.2 | -39.1 | 68.7 | 2 | 0 | 1.7 | 0 | 1.3 |
| 122 | 6.9 | -23.3 | 67.3 | 2 | 0 | 5.9 | 0 | 7.7 |
| 123 | 20 | -29.6 | 70 | 2 | 0 | 0 | 0 | 0 |
| 124 | 51.9 | -14.4 | 5.3 | 2 | 0 | 4.2 | 0 | 9 |
| 125 | 63.7 | -23.5 | 7.4 | 2 | 0 | 2.5 | 0 | 1.3 |
| 126 | 38.4 | -13.3 | 14.6 | 2 | 0 | 0 | 0 | 0 |
| 127 | 44 | -26.6 | 18 | 2 | 0 | 0 | 0 | 1.3 |
| 128 | 59 | 0.6 | 10.9 | 2 | 0 | 0 | 0 | 0 |
| 129 | 56.7 | -11.5 | 14.4 | 2 | 0 | 0 | 0 | 0 |
| 130 | 57.5 | -5 | 30.2 | 2 | 0 | 0.8 | 0 | 2.6 |
| 131 | 50.3 | -53.2 | -15.1 | 2 | 1 | 35.6 | 1 | 39.7 |
| 132 | 51.6 | -59.6 | 9.6 | 2 | 1 | 5.1 | 0 | 2.6 |
| 133 | 32.4 | -74.6 | 31.8 | 2 | 0 | 23.7 | 1 | 15.4 |
| 134 | 15 | -73.1 | 52.9 | 2 | 0 | 17.8 | 0 | 17.9 |
| 135 | 34.7 | -47.9 | 50.8 | 3 | 0 | 1.7 | 0 | 5.1 |
| 136 | 26.3 | -61.3 | 58 | 3 | 0 | 44.1 | 0 | 29.5 |
| 137 | 59.7 | -16.7 | 34.4 | 3 | 0 | 0 | 0 | 0 |
| 138 | 41.7 | -31.4 | 46.3 | 3 | 0 | 0 | 0 | 0 |
| 139 | 8.5 | -55.9 | 61.3 | 3 | 0 | 25.4 | 0 | 21.8 |
| 140 | 21.4 | -48.1 | 70.3 | 3 | 0 | 9.3 | 0 | 10.3 |
| 141 | 34.3 | -4.5 | 52.5 | 3 | 0 | 0 | 0 | 0 |
| 142 | 60 | -26.2 | 27.8 | 3 | 0 | 1.7 | 0 | 5.1 |
| 143 | 50.8 | 3.6 | 40.5 | 3 | 0 | 0.8 | 0 | 0 |
| 144 | 41.2 | 5.9 | -15.4 | 3 | 0 | 0.8 | 0 | 0 |
| 145 | 46.2 | -3.4 | -4.3 | 3 | 0 | 28 | 0 | 26.9 |
| 146 | 43.7 | 6.8 | 3.9 | 3 | 0 | 11 | 0 | 6.4 |
| 147 | 7.5 | 9 | 41.2 | 3 | 0 | 0.8 | 0 | 1.3 |
| 148 | 9.4 | -15 | 41.2 | 4 | 0 | 0 | 0 | 0 |
| 149 | 10.6 | -35.5 | 46.8 | 4 | 0 | 2.5 | 0 | 3.8 |
| 150 | 8.7 | 3.5 | 65.6 | 4 | 0 | 5.9 | 0 | 10.3 |
| 151 | 62.1 | -37.5 | 37.2 | 4 | 0 | 0 | 0 | 0 |
| 152 | 43.3 | 44.9 | 10.5 | 4 | 0 | 6.8 | 0 | 14.1 |
| 153 | 29.7 | 48.1 | 27.1 | 4 | 0 | 9.3 | 0 | 5.1 |
| 154 | 34 | 21 | -8.4 | 4 | 0 | 0 | 0 | 1.3 |
| 155 | 36.2 | 23.8 | 4.8 | 4 | 0 | 0 | 0 | 0 |
| 156 | 7.2 | 30.4 | 27.9 | 4 | 1 | 12.7 | 0 | 14.1 |
| 157 | 12 | 38.6 | -21.5 | 4 | 0 | 8.5 | 0 | 10.3 |
| 158 | 28.6 | 22.4 | -18.9 | 4 | 0 | 14.4 | 0 | 17.9 |
| 159 | 4.9 | 36.4 | -14 | 5 | 0 | 28.8 | 0 | 29.5 |
| 160 | 14.9 | 64.5 | -7.6 | 5 | 1 | 83.9 | 1 | 78.2 |
| 161 | 29.9 | 8.2 | -37.6 | 5 | 1 | 60.2 | 1 | 66.7 |
| 162 | 46.9 | -12.8 | -34.8 | 5 | 1 | 66.9 | 1 | 74.4 |
| 163 | 25.3 | -11.4 | -31.3 | 5 | 0 | 31.4 | 0 | 26.9 |
| 164 | 38.6 | -34.7 | -23 | 5 | 1 | 30.5 | 1 | 28.2 |
| 165 | 37.6 | -62.9 | 47.3 | 6 | 0 | 8.5 | 0 | 11.5 |
| 166 | 46.2 | -36.9 | 48.6 | 6 | 0 | 0 | 0 | 0 |
| 167 | 26 | 7.1 | 57.7 | 6 | 0 | 4.2 | 0 | 1.3 |
| 168 | 51.4 | 10.6 | 20.3 | 6 | 0 | 2.5 | 0 | 0 |
| 169 | 45.4 | 22.9 | 26 | 6 | 0 | 7.6 | 0 | 10.3 |
| 170 | 4.8 | 3.6 | 29.6 | 6 | 0 | 4.2 | 0 | 9 |
| 171 | 60.7 | -13.1 | -21 | 6 | 1 | 15.3 | 1 | 16.7 |
| 172 | 62.6 | -41.9 | -11.4 | 6 | 0 | 1.7 | 0 | 3.8 |
| 173 | 50.9 | -58.7 | 44.3 | 6 | 0 | 1.7 | 0 | 2.6 |
| 174 | 52.8 | -41.7 | 48.2 | 6 | 0 | 0 | 0 | 0 |
| 175 | 40.6 | 33 | 37.2 | 6 | 0 | 0 | 0 | 0 |
| 176 | 42.1 | 14.3 | 49 | 6 | 0 | 11.9 | 0 | 15.4 |
| 177 | 35.3 | 46.4 | -12.5 | 6 | 0 | 8.5 | 0 | 19.2 |
| 178 | 29.6 | 58.2 | 4.9 | 6 | 0 | 5.9 | 0 | 6.4 |
| 179 | 7.9 | 25.6 | 54.7 | 6 | 0 | 4.2 | 0 | 10.3 |
| 180 | 23.5 | 24.3 | 52.7 | 6 | 0 | 0.8 | 0 | 0 |
| 181 | 14.4 | -69.6 | 36.4 | 6 | 0 | 22 | 0 | 11.5 |
| 182 | 6.5 | -58.2 | 44.3 | 7 | 0 | 5.1 | 0 | 5.1 |
| 183 | 5.2 | -25.5 | 30.6 | 7 | 0 | 21.2 | 0 | 23.1 |
| 184 | 54.4 | -50.1 | 28.3 | 7 | 0 | 0.8 | 0 | 0 |
| 185 | 28.3 | 29.9 | 42.9 | 7 | 0 | 0 | 0 | 0 |
| 186 | 6.6 | -48.8 | 30.4 | 7 | 1 | 55.1 | 1 | 51.3 |
| 187 | 7.9 | 41.9 | 4 | 7 | 0 | 25.4 | 1 | 23.1 |
| 188 | 6 | 29.1 | 14.9 | 7 | 0 | 0 | 0 | 1.3 |
| 189 | 9 | 57.5 | 18.8 | 7 | 1 | 88.1 | 1 | 83.3 |
| 190 | 62.4 | -26.6 | -5.4 | 7 | 0 | 0 | 0 | 1.3 |
| 191 | 47.1 | 12.7 | -29.5 | 7 | 0 | 46.6 | 1 | 47.4 |
| 192 | 15.1 | 46.1 | 43.7 | 7 | 0 | 23.7 | 0 | 29.5 |
| 193 | 50.9 | 27.8 | 0 | 7 | 0 | 39.8 | 0 | 44.9 |
| 194 | 47.1 | -69.5 | 27.9 | 7 | 0 | 3.4 | 0 | 10.3 |
| 195 | 12.8 | -54.5 | 15 | 7 | 0 | 10.2 | 0 | 15.4 |
| 196 | 27.4 | -35.3 | -14.7 | 7 | 0 | 34.7 | 0 | 47.4 |
| 197 | 54.8 | -6.3 | -9.9 | 7 | 0 | 11.9 | 0 | 10.3 |
| 198 | 52.2 | -31.3 | 1.5 | 7 | 0 | 0 | 0 | 0 |
| 199 | 56.9 | -45.3 | 9.4 | 7 | 0 | 0 | 0 | 0 |
| 200 | 60 | -38.6 | 16.7 | 7 | 0 | 0 | 0 | 0 |
| 201 | -10.1 | -18.9 | 6.7 | 8 | 0 | 19.5 | 0 | 9 |
| 202 | -12.7 | 10 | 9.6 | 8 | 0 | 0.8 | 0 | 1.3 |
| 203 | -25.1 | 0.7 | 0.5 | 8 | 0 | 29.7 | 0 | 23.1 |
| 204 | -19.3 | -4.9 | -1.1 | 8 | 0 | 3.4 | 0 | 0 |
| 205 | -25.5 | -21.6 | -15.1 | 8 | 0 | 17.8 | 0 | 19.2 |
| 206 | -23.1 | -4.6 | -18.2 | 8 | 0 | 0.8 | 0 | 0 |
| 207 | -9.5 | 11.6 | -7.3 | 8 | 0 | 0 | 0 | 0 |
| 208 | 11.2 | -18.1 | 7 | 8 | 0 | 11 | 0 | 17.9 |
| 209 | 13.3 | 11 | 10.3 | 8 | 0 | 0 | 0 | 0 |
| 210 | 25.6 | 2 | 0.4 | 8 | 0 | 14.4 | 0 | 17.9 |
| 211 | 20 | -3.9 | -1.1 | 8 | 0 | 0 | 0 | 2.6 |
| 212 | 27.1 | -20.1 | -15.2 | 8 | 0 | 12.7 | 0 | 10.3 |
| 213 | 23.4 | -3.5 | -18.3 | 8 | 0 | 0 | 0 | 0 |
| 214 | 9.5 | 12.3 | -6.6 | 8 | 0 | 0 | 0 | 1.3 |

Note: Coordinates and percentages are rounded to one decimal place. For a full description of the Schaefer parcellation please see (Schaefer et al., 2018). The hub-group and hub-individual columns represent the data presented in **Figure 3A** and **Figure 3B** respectively.

**Supplementary Table 2.** Empirical comparison across brain parcellations

|  |  |  |  |
| --- | --- | --- | --- |
|  | Schaefer214 | Shen268 | Brainnetome246 |
| Degree (p) | .235 | .225 | .367 |
| Weighted degree (p) | .895 | .796 | .889 |
| SC Hubs (p) | .864 | .999 | .414 |
| SC Feeder (p) | .619 | .619 | .77 |
| SC Local (p) | .228 | .254 | .205 |
| SC-FC (p) | .012 | .011 | .003 |
| SC-FC Hubs (p) | .583 | .021 | .008 |
| SC-FC Feeders (p) | .002 | .021 | .007 |
| SC-FC Local (p) | .11 | .173 | .058 |
| Feeder-behaviour correlation (r) | -.25 | -.21 | -.23 |

Note: *p*-values differ from main text as they have not been corrected for multiple comparisons in the follow-up SC-FC contrasts. The main findings, whole brain SC-FC coupling differences, feeder SF-FC coupling differences and brain-behaviour correlations replicate across all three templates. In addition, in the replication templates (Shen and Brainnetome) differences were found in hub connections. Grey shading indicates *p* < 0.05 uncorrected.

**Supplementary Table 3.** Effect of hub definition on results

|  |  |  |  |
| --- | --- | --- | --- |
|  | 12.5% | 15% | 17.5% |
| Degree (p) | .235 | .24 | .235 |
| Weighted degree (p) | .895 | .90 | .895 |
| SC Hubs (p) | .854 | .86 | .354 |
| SC Feeder (p) | .88 | .62 | .304 |
| SC Local (p) | .199 | .23 | .284 |
| SC-FC (p) | .012 | .01 | .012 |
| SC-FC Hubs (p) | .433 | .58 | .648 |
| SC-FC Feeders (p) | .006 | <.001 | .001 |
| SC-FC Local (p) | .048 | .11 | .195 |
| Feeder-behaviour correlation (r) | -.23 | -.25 | -.29 |

Note: *p*-values differ from main text as they have not been corrected for multiple comparisons in the follow-up SC-FC contrasts. The main findings, whole brain SC-FC coupling differences, feeder SF-FC coupling differences and brain-behaviour correlations replicate across all three hub definitions. Grey shading indicates *p* < .05 uncorrected.

**Supplementary Table 4.** Principle component analysis loadings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Component1 | Component2 | Component3 | Component4 |
| Inattention SNAP-IV (parent-rated) | .50 | -.5 | -.47 | -.53 |
| Hyperactivity/Impulsivity SNAP-IV (parent-rated) | .48 | -.52 | .56 | .44 |
| Inattention ASRS (self-rated) | .52 | .41 | -.5 | .56 |
| Hyperactivity/Impulsivity ASRS (self-rated) | .50 | .56 | .46 | -.46 |
| **Variance explained** | **80.72** | **9.49** | **6.68** | **3.11** |

**Supplementary Table 5.** Independent behavior correlations

|  |  |  |
| --- | --- | --- |
|  | Correlation | p |
| Inattention SNAP-IV (parent-rated) | -.24 | < .001 |
| Hyperactivity/Impulsivity SNAP-IV (parent-rated) | -.22 | .002 |
| Inattention ASRS (self-rated) | -.16 | .021 |
| Hyperactivity/Impulsivity ASRS (self-rated) | -.22 | .002 |