**Supplementary Table 1.** Statistics of the repeated ANOVA analysis for each region.

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | controls | AN patients |  |  | t/F statistics | p value | Partial eta squared/Cohen’s d |
| **dPCC** |  |  | ANOVA | Interaction group x condition | F(1,38)=5.37 | *p=.03* | ɳ2p=. 12 |
| Self: Mean, SD | -.46 (.33) | -.14 (.39) |  | Condition | F(1,38)=0.61 | p=.44 | ɳ2p=.02 |
| Other: Mean, SD | -.42 (.29) | -,22 (.31) |  | Group | F(1,38)=6.35 | *p=.02* | ɳ2p=. 14 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=2.78 | *p=.01* | Cohen's d=. 88 |
|  |  |  |  | Between-groups, other condition | t(38)=2.05 | *p=.047* | Cohen's d=.65 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=1.03 | p=.32 | ɳ2p=.05 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=5.60 | *p=.03* | ɳ2p=.23 |
| **vPCC** |  |  | ANOVA | Interaction group x condition | F(1,38)=2.93 | p=.10 | ɳ2p=.07 |
| Self: Mean, SD | -.65 (.40) | -.38 (.35) |  | Condition | F(1,38)=10.40 | *p=.003* | ɳ2p=.22 |
| Other: Mean, SD | -.49 (.35) | -.33(.23) |  | Group | F(1,38)=4.56 | *p=.04* | ɳ2p=.11 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=2.29 | *p=.03* | Cohen's d=.73 |
|  |  |  |  | Between-groups, other condition | t(38)=1.73 | p=.09 | Cohen's d=.55 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=13.24 | *p=.002* | ɳ2p=.41 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=1.06 | p=.32 | ɳ2p=.05 |
| **Precuneus** |  |  | ANOVA | Interaction group x condition | F(1,38)=4.62 | *p=.04* | ɳ2p=.11 |
| Self: Mean, SD | -.75 (.73) | -.37 (.59) |  | Condition | F(1,38)=4.26 | *p=.046* | ɳ2p=.10 |
| Other: Mean, SD | -,55 (.61) | -,37 (.43) |  | Group | F(1,38)=2. 26 | p=.14 | ɳ2p=. 06 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=1.79, | p=.08 | Cohen's d=.57 |
|  |  |  |  | Between-groups, other condition | t(38)=1.06 | p=.30 | Cohen's d=.33 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=8.81 | *p=.01* | ɳ2p=. 32 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=0.004 | p=.95 | ɳ2p=. 00 |
| **P-O transition zone-precuneus** |  |  | ANOVA | Interaction group x condition | F(1,38)=10.65 | *p=.002* | ɳ2p=. 22 |
| Self: Mean, SD | -1.16 (.75) | -.31 (.89) |  | Condition | F(1,38)=0.49 | p=.49 | ɳ2p=. 01 |
| Other: Mean, SD | -.85 (.64) | -.51 (.82) |  | Group | F(1,38)=6.49 | *p=.02* | ɳ2p=. 15 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=3.27 | *p=.002* | Cohen's d=1.03 |
|  |  |  |  | Between-groups, other condition | t(38)=1.47 | p=.15 | Cohen's d=.47 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=9.55 | *p=.006* | ɳ2p=. 33 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=2.79 | p=.11 | ɳ2p=. 13 |
| **Superior parietal cortex-precuneus** |  |  | ANOVA | Interaction group x condition | F(1,38)=7.63 | *p=.01* | ɳ2p=.17 |
| Self: Mean, SD | -.22 (.48) | .23 (.45) |  | Condition | F(1,38)=1.92 | p=.17 | ɳ2p=.05 |
| Other: Mean, SD | -.16 (.29) | .06 (.36) |  | Group | F(1,38)=7.76 | *p=.01* | ɳ2p=.17 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=3.07 | *p=.004* | Cohen's d=.97 |
|  |  |  |  | Between-groups, other condition | t(38)=2.11 | p=.04 | Cohen's d=.67 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=0.89 | p=.36 | ɳ2p=.05 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=9.19 | *p=.01* | ɳ2p=.33 |
| **PPI- dPCC-ACC** |  |  | ANOVA | Interaction group x condition | F(1,38)=7.84 | *p=.01* | ɳ2p=. 17 |
| Self: Mean, SD | -.11 (.46) | .25 (.58) |  | Condition | F(1,38)=1.56 | p=.22 | ɳ2p=.04 |
| Other: Mean, SD | .32 (.37) | .09 (.45) |  | Group | F(1,38)=0.33 | p=.57 | ɳ2p=. 01 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=2.15 | *p=.04* | Cohen's d=.68 |
|  |  |  |  | Between-groups, other condition | t(38)=1.80 | p=.08 | Cohen's d=.57 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=9.07 | *p=.01* | ɳ2p=.32 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=1.09 | p=.31 | ɳ2p=.06 |
| **PPI-Precuneus-mid temporal** |  |  | ANOVA | Interaction group x condition | F(1,38)=3.49 | p=.07 | ɳ2p=.08 |
| Self: Mean, SD | ,04 (.19) | -.05 (.37) |  | Condition | F(1,38)=3.13 | p=.09 | ɳ2p=.08 |
| Other: Mean, SD | ,03 (.38) | ,20 (.29) |  | Group | F(1,38)=0.24 | p=.63 | ɳ2p=.01 |
|  |  |  | Post-hoc | Between-groups, self condition | t(38)=1.00 | p=.32 | Cohen's d=.32 |
|  |  |  |  | Between-groups, other condition | t(38)=1.54 | p=.13 | Cohen's d=.49 |
|  |  |  |  | Controls, self vs other condition | F(1,19)=0.01 | p=.94 | ɳ2p=.00 |
|  |  |  |  | AN patients, self vs other condition | F(1,19)=6.35 | p=.02 | ɳ2p=.25 |

dPCC: dorsal posterior cingulate cortex. vPCC: ventral posterior cingulate cortex. PO: parieto-occipital. PPI: psychophysiological interaction analyses.