

Supplementary Table 9: Significance of 66 ROIs under joint variance (JVAR) test. Greater significance and lower p-values under JVAR test implies ROI better characterizes S^+ (n=37) as group relative to S^- (n=442) in thickness, area, and volume measurements simultaneously. (a) One-sided F-tests for ratio of variances, with 36 and 441 degrees of freedom, between the groups were performed for thickness, area, and volume variables of each respective ROI. (b) The p-value for the JVAR test statistic $T_j = 1 - \prod_{k=1}^3 (1 - p_{jk})$ were generated through permutation distributions, as described in methods section. (c) FDR-adjusted p-values are over JVAR tests for 66 ROIs. (d) The left temporal pole had a FDR-adjusted p-value less than 0.05.

| Rank | Region of Interest | Ratio of Variances | | | JVAR Test ^b | | |
|------|------------------------------|----------------------------------|-------|--------|------------------------|---------|------------------|
| | | F-test ^a (p_{jk}) | | | Statistic T_j | p-value | FDR ^c |
| | | Thickness | Area | Volume | | | |
| 1 | LH.temporalpole ^d | 0.044 | 0.014 | 0.002 | 0.0582 | 0.0005 | 0.035 |
| 2 | LH.lingual | 0.002 | 0.033 | 0.006 | 0.0403 | 0.0016 | 0.052 |
| 3 | RH.middletemporal | 0.080 | 0.228 | 0.093 | 0.3558 | 0.0266 | 0.524 |
| 4 | LH.caudalanteriorcingulate | 0.028 | 0.235 | 0.109 | 0.3381 | 0.0318 | 0.524 |
| 5 | RH.rostralanteriorcingulate | 0.029 | 0.074 | 0.285 | 0.3576 | 0.0427 | 0.563 |
| 6 | LH.transversetemporal | 0.031 | 0.053 | 0.385 | 0.4352 | 0.0533 | 0.586 |
| 7 | RH.transversetemporal | 0.047 | 0.286 | 0.220 | 0.4686 | 0.0797 | 0.703 |
| 8 | LH.entorhinal | 0.065 | 0.063 | 0.372 | 0.4499 | 0.0852 | 0.703 |
| 9 | LH.fusiform | 0.286 | 0.256 | 0.244 | 0.5979 | 0.1211 | 0.802 |
| 10 | RH.medialorbitofrontal | 0.016 | 0.460 | 0.284 | 0.6193 | 0.1409 | 0.802 |
| 11 | LH.caudalmiddlefrontal | 0.610 | 0.017 | 0.040 | 0.6318 | 0.1423 | 0.802 |
| 12 | LH.lateralorbitofrontal | 0.185 | 0.304 | 0.404 | 0.6620 | 0.1638 | 0.802 |
| 13 | LH.superiorparietal | 0.148 | 0.406 | 0.273 | 0.6322 | 0.1686 | 0.802 |
| 14 | RH.caudalmiddlefrontal | 0.537 | 0.132 | 0.117 | 0.6447 | 0.1754 | 0.802 |
| 15 | RH.parstriangularis | 0.085 | 0.521 | 0.275 | 0.6821 | 0.1889 | 0.802 |
| 16 | RH.paracentral | 0.629 | 0.010 | 0.001 | 0.6330 | 0.2185 | 0.802 |
| 17 | LH.rostralanteriorcingulate | 0.007 | 0.529 | 0.393 | 0.7162 | 0.2237 | 0.802 |
| 18 | RH.posteriorcingulate | 0.237 | 0.390 | 0.359 | 0.7016 | 0.2280 | 0.802 |
| 19 | LH.pericalcarine | 0.593 | 0.207 | 0.203 | 0.7426 | 0.2347 | 0.802 |
| 20 | RH.superiorparietal | 0.563 | 0.215 | 0.301 | 0.7602 | 0.2614 | 0.802 |
| 21 | RH.parahippocampal | 0.412 | 0.031 | 0.634 | 0.7913 | 0.2940 | 0.802 |
| 22 | RH.inferiortemporal | 0.242 | 0.320 | 0.623 | 0.8057 | 0.3070 | 0.802 |
| 23 | LH.cuneus | 0.004 | 0.717 | 0.229 | 0.7828 | 0.3401 | 0.802 |
| 24 | RH.pericalcarine | 0.569 | 0.289 | 0.493 | 0.8447 | 0.3588 | 0.802 |
| 25 | RH.postcentral | 0.106 | 0.592 | 0.452 | 0.8002 | 0.3624 | 0.802 |
| 26 | LH.inferiorparietal | 0.711 | 0.165 | 0.344 | 0.8418 | 0.3717 | 0.802 |
| 27 | RH.isthmuscingulate | 0.685 | 0.231 | 0.399 | 0.8546 | 0.3731 | 0.802 |
| 28 | LH.parsopercularis | 0.640 | 0.171 | 0.459 | 0.8388 | 0.3795 | 0.802 |
| 29 | LH.paracentral | 0.757 | 0.315 | 0.135 | 0.8562 | 0.3871 | 0.802 |
| 30 | LH.precentral | 0.612 | 0.109 | 0.484 | 0.8218 | 0.3888 | 0.802 |
| 31 | RH.fusiform | 0.077 | 0.779 | 0.315 | 0.8605 | 0.4025 | 0.802 |
| 32 | LH.medialorbitofrontal | 0.561 | 0.485 | 0.444 | 0.8743 | 0.4090 | 0.802 |
| 33 | LH.rostralmiddlefrontal | 0.419 | 0.224 | 0.726 | 0.8764 | 0.4260 | 0.802 |

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| Rank | Region of Interest | Ratio of Variances | | | JVAR Test ^b | | |
|------|----------------------------|----------------------------------|-------|--------|------------------------|---------|------------------|
| | | F-test ^a (p_{jk}) | | | Statistic T_j | p-value | FDR ^c |
| | | Thickness | Area | Volume | | | |
| 34 | RH.superiortemporal | 0.831 | 0.059 | 0.229 | 0.8775 | 0.4280 | 0.802 |
| 35 | RH.parsopercularis | 0.632 | 0.391 | 0.483 | 0.8839 | 0.4292 | 0.802 |
| 36 | RH.cuneus | 0.714 | 0.247 | 0.511 | 0.8946 | 0.4627 | 0.802 |
| 37 | LH.parstriangularis | 0.205 | 0.727 | 0.520 | 0.8958 | 0.4627 | 0.802 |
| 38 | LH.bankssts | 0.796 | 0.253 | 0.343 | 0.8997 | 0.4695 | 0.802 |
| 39 | RH.entorhinal | 0.479 | 0.372 | 0.625 | 0.8774 | 0.4740 | 0.802 |
| 40 | RH.rostralmiddlefrontal | 0.885 | 0.047 | 0.203 | 0.9125 | 0.4954 | 0.807 |
| 41 | LH.superiortemporal | 0.855 | 0.197 | 0.288 | 0.9170 | 0.5016 | 0.807 |
| 42 | RH.precentral | 0.175 | 0.604 | 0.470 | 0.8269 | 0.5423 | 0.816 |
| 43 | RH.temporalpole | 0.813 | 0.469 | 0.285 | 0.9291 | 0.5448 | 0.816 |
| 44 | LH.inferiortemporal | 0.862 | 0.084 | 0.482 | 0.9343 | 0.5486 | 0.816 |
| 45 | RH.lingual | 0.593 | 0.566 | 0.605 | 0.9302 | 0.5563 | 0.816 |
| 46 | LH.supramarginal | 0.749 | 0.508 | 0.522 | 0.9410 | 0.5781 | 0.817 |
| 47 | RH.bankssts | 0.616 | 0.708 | 0.527 | 0.9469 | 0.5967 | 0.817 |
| 48 | RH.parsorbitalis | 0.360 | 0.672 | 0.757 | 0.9490 | 0.6015 | 0.817 |
| 49 | LH.superiorfrontal | 0.126 | 0.754 | 0.777 | 0.9519 | 0.6064 | 0.817 |
| 50 | RH.frontalpole | 0.086 | 0.533 | 0.904 | 0.9590 | 0.6195 | 0.818 |
| 51 | RH.lateralorbitofrontal | 0.728 | 0.657 | 0.600 | 0.9626 | 0.6631 | 0.858 |
| 52 | LH.precuneus | 0.627 | 0.717 | 0.722 | 0.9707 | 0.6773 | 0.860 |
| 53 | RH.precuneus | 0.756 | 0.545 | 0.848 | 0.9831 | 0.7598 | 0.899 |
| 54 | RH.supramarginal | 0.839 | 0.643 | 0.775 | 0.9870 | 0.7681 | 0.899 |
| 55 | RH.lateraloccipital | 0.754 | 0.424 | 0.913 | 0.9877 | 0.7765 | 0.899 |
| 56 | LH.middletemporal | 0.620 | 0.811 | 0.746 | 0.9817 | 0.7767 | 0.899 |
| 57 | RH.caudalanteriorcingulate | 0.811 | 0.538 | 0.904 | 0.9916 | 0.7837 | 0.899 |
| 58 | LH.parahippocampal | 0.173 | 0.476 | 0.960 | 0.9828 | 0.7903 | 0.899 |
| 59 | LH.postcentral | 0.685 | 0.735 | 0.926 | 0.9938 | 0.8180 | 0.915 |
| 60 | LH.parsorbitalis | 0.983 | 0.345 | 0.221 | 0.9914 | 0.8420 | 0.926 |
| 61 | LH.isthmuscingulate | 1.000 | 0.194 | 0.215 | 0.9999 | 0.9175 | 0.979 |
| 62 | LH.frontalpole | 0.615 | 0.402 | 0.991 | 0.9980 | 0.9276 | 0.979 |
| 63 | LH.posteriorcingulate | 0.784 | 0.891 | 0.944 | 0.9987 | 0.9343 | 0.979 |
| 64 | RH.superiorfrontal | 0.120 | 0.938 | 0.979 | 0.9988 | 0.9505 | 0.980 |
| 65 | RH.inferiorparietal | 0.443 | 0.976 | 0.997 | 1.0000 | 0.9853 | 0.994 |
| 66 | LH.lateraloccipital | 0.990 | 0.919 | 0.940 | 1.0000 | 0.9944 | 0.994 |