

Goal: We want to make sure that the Ds are always greater than the Cs

Conclusion: our method and the paper's method produce very similar critical values; the comparison between critical values is inconsistent → sometimes the Cs and Ds are equal, sometimes Cs are greater than Ds, and sometimes Ds are greater than Cs

Test 1 (case 1: nothing is affected)

Structure	Cs (critical values)	Ds (critical values)	Paper p-values	Our method p-values
Everything	0.18853983182 146755	0.18853983	0.173	0.173
Telencephalon_L_501_5	0.18853983182 146755	0.18853983	0.173	0.173
CerebralCortex_L_482_4	0.18853983182 146755	0.18853983	0.173	0.173
Limbic_L_434_3	0.18853983182 146755	0.18853983	0.173	0.173
Hippo_L_338_2	0.05463363290 2964524	0.05463363	0.215	0.215
Hippo_L_75_1	0.05463363290 2964524	0.05463363	0.215	0.215
Amyg_L_336_2	0.01529360356 5370573	0.01271365	0.287	0.135
Amyg_L_73_1	0.01529360356 5370573	0.01271365	0.287	0.135

Test 2 (case 2: left hippocampus is affected)

Structure	Cs (critical values)	Ds (critical values)	Paper p-values	Our method p-values
Everything	0.77379980242 3569	0.7737998	0.0	0.0
Telencephalon_L_501_5	0.77379980242 3569	0.7737998	0.0	0.0
CerebralCortex_L_482_4	0.77379980242 3569	0.7737998	0.0	0.0
Limbic_L_434_3	0.77379980242 3569	0.7737998	0.0	0.0

Hippo_L_338_2	0.75295198923 13388	0.75295199	0.0	0.0
Hippo_L_75_1	0.75295198923 13388	0.75295199	0.0	0.0
Amyg_L_336_2	0.05235431673 1135817	0.05235432	0.289	0.289
Amyg_L_73_1	0.05235431673 1135817	0.05235432	0.289	0.289

Test 3 (case 3: both left hippocampus and left amygdala are affected)

Structure	Cs (critical values)	Ds (critical values)	Paper p-values	Our method p-values
Everything	0.85199203519 4695	0.85184682	0.0	0.0
Telencephalon_L_501_5	0.85199203519 4695	0.85184682	0.0	0.0
CerebralCortex_L_482_4	0.85199203519 4695	0.85184682	0.0	0.0
Limbic_L_434_3	0.85199203519 4695	0.85184682	0.0	0.0
Amyg_L_336_2	0.82650278644 76192	0.82641008	0.0	0.001
Amyg_L_73_1	0.82650278644 76192	0.82641008	0.0	0.001
Hippo_L_338_2	0.70654230391 86347	0.70032888	0.0	0.0
Hippo_L_75_1	0.70654230391 86347	0.70032888	0.0	0.0

Test 4 (case 4: either left hippocampus and left amygdala are affected but not both)

Structure	Cs (critical values)	Ds (critical values)	Paper p-values	Our method p-values
Everything	0.90473651963 83765	0.90692002	0.0	0.0
Telencephalon_L_501_5	0.90473651963 83765	0.90692002	0.0	0.0

CerebralCortex_ L_482_4	0.90473651963 83765	0.90692002	0.0	0.0
Limbic_L_434_3	0.90473651963 83765	0.90692002	0.0	0.0
Hippo_L_338_2	0.51817106441 20363	0.51817189	0.012	0.012
Hippo_L_75_1	0.51817106441 20363	0.51817189	0.012	0.012
Amyg_L_336_2	0.34353155453 247075	0.3198431	0.002	0.001
Amyg_L_73_1	0.34353155453 247075	0.3198431	0.002	0.001