ResultsSect

$Freya\ Acar$

Code for demographics

The code can be found in markdown version of this file, it is not printed in the PDF

Results with only age as a covariate, and results with only sexual orientation as a covariate.

Table 1: ANOVA for volume with FDR correction for model with age as covariate and without covariates

region	No cov	With age	With SO
$L_fusiform_volume$	0	0	0
$L_{inferior parietal_volume}$	0	0	0
$L_{postcentral_volume}$	0.001	0.001	0.001
L_precentral_volume	0.012	0.012	0.013
L_frontalpole_volume	0.008	0.008	0.009
R_fusiform_volume	0	0	0
R_inferiorparietal_volume	0	0	0
R_postcentral_volume	0.01	0.008	0.01
R_precentral_volume	0.001	0.001	0.001
R_frontalpole_volume	0.002	0.002	0.002
LeftCerebellumWhiteMatter	0.001	0.001	0.001
LeftCerebellumCortex	0	0	0
${\bf Right Cerebellum White Matter}$	0.001	0.001	0.001
RightCerebellumCortex	0	0	0
LeftThalamusProper	0	0	0
LeftCaudate	0.003	0.002	0.003
LeftPutamen	0.006	0.006	0.006
LeftAccumbensarea	0.542	0.545	0.541
RightThalamusProper	0	0	0
RightCaudate	0.002	0.001	0.002
RightPutamen	0	0	0
RightAccumbensarea	0.121	0.123	0.123

Table 2: Group-wise comparison for volume in model with no covariates

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
$L_fusiform_volume$	0.04	0.061	1	0	0.608	0
$L_inferiorparietal_volume$	0.108	0.076	1	0	1	0.006
$L_{postcentral_volume}$	0.007	1	0.357	0.001	1	0.067
$L_precentral_volume$	0.263	1	0.963	0.026	1	0.115
$L_frontalpole_volume$	1	1	0.023	1	0.814	0.005
$R_fusiform_volume$	0.015	0.02	1	0	0.891	0.004
$R_{inferior parietal_volume}$	0.238	0.289	0.786	0	1	0.001
$R_postcentral_volume$	0.965	1	0.597	0.042	1	0.013

R_precentral_volume	0.017	1	0.013	0.019	1	0.022
R_frontalpole_volume	0.054	1	1	0.001	0.22	0.433
${\bf Left Cerebellum White Matter}$	0.018	1	1	0.001	0.009	0.754
LeftCerebellumCortex	0.004	0.41	0.006	0	1	0
${\bf Right Cerebellum White Matter}$	0.018	1	1	0	0.056	0.258
RightCerebellumCortex	0.002	0.184	0.046	0	1	0
LeftThalamusProper	0.005	0.065	1	0	0.056	0.002
LeftCaudate	0.028	1	0.072	0.025	1	0.065
LeftPutamen	0.071	1	0.211	0.032	1	0.11
LeftAccumbensarea	NA	NA	NA	NA	NA	NA
RightThalamusProper	0.143	0.033	1	0	0.455	0.004
RightCaudate	0.004	1	0.162	0.005	1	0.149
RightPutamen	0	1	0.001	0.001	1	0.015
RightAccumbensarea	NA	NA	NA	NA	NA	NA

Table 3: Group-wise comparison for volume in model with age as covariate $\,$

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
$L_fusiform_volume$	0.883	0.049	1	0	1	0.001
$L_inferiorparietal_volume$	1	0.054	1	0	1	0.015
$L_postcentral_volume$	1	1	1	0.01	1	0.233
$L_precentral_volume$	1	1	1	0.324	1	0.184
$L_{frontalpole_volume}$	1	1	0.156	1	0.269	0.019
R_{siform_volume}	0.533	0.02	1	0	0.718	0.008
$R_{inferior parietal_volume}$	1	0.198	1	0.005	1	0.002
$R_{postcentral_volume}$	1	1	1	0.322	1	0.046
$R_precentral_volume$	1	1	0.047	0.221	1	0.024
$R_frontalpole_volume$	0.381	1	1	0.002	0.286	0.701
${\bf Left Cerebellum White Matter}$	1	1	1	0.006	0.103	1
LeftCerebellumCortex	0.149	0.446	0.012	0	1	0
${\bf Right Cerebellum White Matter}$	1	0.879	1	0.006	0.365	0.484
RightCerebellumCortex	0.086	0.203	0.071	0	1	0
LeftThalamusProper	1	0.078	1	0	1	0.004
LeftCaudate	1	1	0.236	0.074	1	0.145
LeftPutamen	1	1	0.588	0.693	1	0.157
LeftAccumbensarea	NA	NA	NA	NA	NA	NA
RightThalamusProper	1	0.032	1	0.008	1	0.012
RightCaudate	0.87	1	0.474	0.029	1	0.277
RightPutamen	0.451	1	0.005	0.065	1	0.02
RightAccumbensarea	NA	NA	NA	NA	NA	NA

Table 4: Group-wise comparison for volume in model with SO as covariate $\,$

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
$L_fusiform_volume$	1	0.1	1	0	1	0
$L_{inferior parietal_volume}$	1	0.497	1	0	1	0.004
$L_postcentral_volume$	0.395	1	1	0.008	1	0.034
$L_precentral_volume$	0.025	1	1	0.025	1	0.111
$L_{frontal pole_volume}$	1	1	0.009	1	1	0.009
$R_fusiform_volume$	1	0.011	1	0	1	0.001

$R_{inferior parietal_volume}$	1	1	1	0.001	1	0.001
$R_postcentral_volume$	0.329	1	1	0.187	1	0.007
$R_{precentral_volume}$	0.172	1	0.019	0.141	1	0.018
$R_frontalpole_volume$	1	0.21	1	0.028	1	0.12
Left Cerebellum White Matter	1	1	1	0.002	0.041	0.918
LeftCerebellumCortex	1	0.461	0.009	0	1	0
${\bf Right Cerebellum White Matter}$	1	1	1	0.001	0.194	0.33
RightCerebellumCortex	1	0.223	0.044	0	0.981	0
LeftThalamusProper	1	0.034	1	0	0.392	0.001
LeftCaudate	1	1	0.067	0.164	1	0.078
LeftPutamen	1	1	1	0.02	1	0.129
LeftAccumbensarea	NA	NA	NA	NA	NA	NA
RightThalamusProper	1	0.111	1	0.001	1	0.004
RightCaudate	1	1	0.227	0.045	1	0.149
RightPutamen	0.582	1	0.037	0.002	1	0.009
RightAccumbensarea	NA	NA	NA	NA	NA	NA

Then we do the same computations for thickness. However, for thickness we leave out intracranial volume as a covariate (cf. e-mail Meredith Braskie).

Table 5: ANOVA for thickness with FDR correction for model with age as covariate, with sexual orientation as a covariate and without covariates

region	No cov	With age	With SO
L_fusiform_thickavg	0.683	0.68	0.686
R_fusiform_thickavg	0.661	0.612	0.663
$L_{inferior parietal_thickavg}$	0.661	0.612	0.663
R_inferiorparietal_thickavg	0.661	0.612	0.663
$L_{postcentral_thickavg}$	0.683	0.68	0.686
R_postcentral_thickavg	0.753	0.74	0.755
L_precentral_thickavg	0.661	0.612	0.663
R_precentral_thickavg	0.661	0.612	0.663
$L_{frontalpole_thickavg}$	0.661	0.612	0.663
$R_frontal pole_thick avg$	0.661	0.612	0.663

Table 6: Group-wise comparison for thickness in model with no covariates $\,$

CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
	NA	NA N	NA NA NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA NA NA NA NA

Table 7: Group-wise comparison for thickness in model with age as covariate $\,$

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
$L_fusiform_thickavg$	NA	NA	NA	NA	NA	NA
R_fusiform_thickavg	NA	NA	NA	NA	NA	NA
$L_{inferior parietal_thickavg}$	NA	NA	NA	NA	NA	NA
$R_{inferior parietal_thickavg}$	NA	NA	NA	NA	NA	NA
$L_{postcentral_thickavg}$	NA	NA	NA	NA	NA	NA
$R_postcentral_thickavg$	NA	NA	NA	NA	NA	NA
$L_precentral_thickavg$	NA	NA	NA	NA	NA	NA
R_precentral_thickavg	NA	NA	NA	NA	NA	NA
$L_{frontalpole_thickavg}$	NA	NA	NA	NA	NA	NA
R_frontalpole_thickavg	NA	NA	NA	NA	NA	NA

Table 8: Group-wise comparison for thickness in model with sexual orientation as covariate ${\bf r}$

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
L_fusiform_thickavg	NA	NA	NA	NA	NA	NA
R_fusiform_thickavg	NA	NA	NA	NA	NA	NA
L_inferiorparietal_thickavg	NA	NA	NA	NA	NA	NA
$R_{inferior parietal_thickavg}$	NA	NA	NA	NA	NA	NA
$L_postcentral_thickavg$	NA	NA	NA	NA	NA	NA
$R_postcentral_thickavg$	NA	NA	NA	NA	NA	NA
$L_precentral_thickavg$	NA	NA	NA	NA	NA	NA
$R_{precentral_thickavg}$	NA	NA	NA	NA	NA	NA
$L_{frontalpole_thickavg}$	NA	NA	NA	NA	NA	NA
$R_frontal pole_thick avg$	NA	NA	NA	NA	NA	NA

And surface area:

Table 9: ANOVA for surface area with FDR correction for model with age as covariate, with sexual orientation as covariate and without covariates

region	No cov	With age	With SO
L_fusiform_surfavg	0.004	0.004	0.002
R_fusiform_surfavg	0.014	0.014	0.008
L_inferiorparietal_surfavg	0.001	0.001	0
R_inferiorparietal_surfavg	0.003	0.003	0.002
L_postcentral_surfavg	0.019	0.018	0.012
R_postcentral_surfavg	0.082	0.081	0.059
L_precentral_surfavg	0.012	0.012	0.008
R_precentral_surfavg	0.002	0.003	0.001
L_frontalpole_surfavg	0.612	0.613	0.558
R_frontalpole_surfavg	0.001	0.001	0

Table 10: Group-wise comparison for surface area in model with no covariates

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
L_fusiform_surfavg	0.034	1	1	0.001	0.08	1
$R_fusiform_surfavg$	0.065	1	1	0.003	0.543	0.896
L_inferiorparietal_surfavg	0.009	1	1	0	0.174	0.175
R_inferiorparietal_surfavg	0.009	1	1	0.001	0.227	0.545
$L_postcentral_surfavg$	0.004	1	1	0.203	0.159	1
$R_postcentral_surfavg$	NA	NA	NA	NA	NA	NA
$L_precentral_surfavg$	0.016	1	0.365	0.02	1	0.444
$R_{precentral_surfavg}$	0	0.418	0.128	0.05	0.314	1
$L_frontalpole_surfavg$	NA	NA	NA	NA	NA	NA
$R_{frontal pole_surfavg}$	0.004	1	1	0.001	0.003	1

Table 11: Group-wise comparison for surface area in model with age as covariate

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
L_fusiform_surfavg	1	0.68	1	0.154	0.876	1
R_fusiform_surfavg	1	0.205	1	0.254	1	1
L_inferiorparietal_surfavg	1	0.513	1	0.016	1	0.218
R_inferiorparietal_surfavg	1	1	1	0.044	1	0.842
$L_{postcentral_surfavg}$	1	1	1	1	1	1
$R_postcentral_surfavg$	NA	NA	NA	NA	NA	NA
$L_precentral_surfavg$	1	1	1	0.666	1	0.87
R_precentral_surfavg	0.541	0.447	0.466	1	1	1
$L_{frontal pole_surfavg}$	NA	NA	NA	NA	NA	NA
$R_{frontalpole_surfavg}$	0.417	1	1	0.051	0.037	1

Table 12: Group-wise comparison for surface area in model with sexual orientation as covariate ${\bf r}$

	CW vs CM	CW vs TM	CW vs TW	CM vs TM	CM vs TW	TM vs TW
$L_fusiform_surfavg$	1	1	0.663	0	0.001	1
R_fusiform_surfavg	1	1	1	0	0.048	1
$L_inferiorparietal_surfavg$	1	1	0.152	0	0.002	0.95
R_inferiorparietal_surfavg	1	1	0.143	0	0.004	1
$L_postcentral_surfavg$	1	0.009	0.543	0.002	0.05	1
$R_postcentral_surfavg$	NA	NA	NA	NA	NA	NA
$L_precentral_surfavg$	0.069	0.557	0.04	0.001	0.111	1
$R_{precentral_surfavg}$	0.456	0.009	0.006	0.002	0.011	1
$L_{frontalpole_surfavg}$	NA	NA	NA	NA	NA	NA
$R_frontalpole_surfavg$	1	1	1	0	0.001	1