**Started 24th Sept 2023**

**Location of data and scripts**

/Users/dorothybishop/Rprojects/FMRI\_fTCD\_2023

NB this is connected to Github

Uses subset of participants from COLA project – original files here:

<https://osf.io/g9tqh/>

ftcd\_raw\_data.zip has the .exp files

Codes for those used with fMRI are in subject\_key\_BANOXF\_Gorilla.docx

fMRI data is here: https://openneuro.org/datasets/ds004073/versions/1.0.1

NB the orientation was wrong for some but has been corrected. For inexplicable reasons, tends to load in fsleyes with wrong orientation on my machine, but not on others.

Generic explanation of NIFTI file format <https://brainder.org/2012/09/23/the-nifti-file-format/>

Missing fMRI data explained on OpenNeuro:

* Participant sub-OXF13 did not perform the WC task.
* Participant sub-OXF17 was repositioned in the scanner halfway through the experiment, so has two B0 fieldmaps. sub-OXF17\_acq-func\_run-01\* should be used with SC, SD, SG and WC tasks. sub-OXF17\_acq-func\_run-02\* should be used with PD and SG tasks.

Problem to resolve.

Discrepancy between LIs from fTCD on the participants.tsv file on OpenNeuro and the ftcd\_data on OSF. Numbers for LIs are different, and 4 cases not included in ftcd\_data.

Creating R script compute\_GAM\_COLA\_LI.rmd to redo from .exp files, including original LI and GAM LI, so we can double check it all. Need to be careful with the task timings.

In this file, codes are entered thus:

mlist <- c("BAN01", "BAN02", "BAN03", "BAN04", "BAN05", "BAN06", "BAN07", "BAN08", "BAN09", "BAN10", "BAN11", "BAN12", "BAN13", "BAN14", "BAN15", "BAN16", "BAN17", "BAN18", "BAN19", "BAN20", "BAN21", "BAN22", "BAN23", "BAN24", "OXF01", "OXF02", "OXF03", "OXF04", "OXF05", "OXF06", "OXF07", "OXF08", "OXF09", "OXF10", "OXF11", "OXF12", "OXF13", "OXF14", "OXF15", "OXF16", "OXF17", "OXF18", "OXF19", "OXF20", "OXF21", "OXF22", "OXF23", "OXF24", "OXF25", "OXF26", "OXF27")

clist <- c(3448684, 3135443, 3181846, 3972866, 3972872, 3972851, 3972869, 3972886, 3972876, 3075829, 3176689, 3972867, 3972892, 3972898, 3484457, 3972871, 3405933, 3972887, 3399357, 3972896, 3680015, 3680022, 3680024, 3496140, 3679995, 3495903, 3679954, 3679947, 3679951, 3680010, 3679944, 3359167, 3495923, 3680011, 3160609, 3495898, 3680016, 3679970, 3357215, 3308424, 3972708, 3495965, 4688311, 3741358, 3667016, 3495952, 3495959, 3370826, 3460117, 3742941, 3972701)

NB 4 cases are not included in ftcd, but their .exp files are on OSF.

These are 3680015 3680022 3680024 3972898 corresponding to BAN21 BAN22 BAN23 BAN14

Step 1: check the original file for processing .exp ftcd data. We should have the one we used for COLA on OSF, and it should have correct timings for all the tasks.

Would also need to run this for the 4 missing cases.

File is ftcd\_preprocessing and is on https://osf.io/2bt7r

**25 Sep 2023**

So yesterday I revamped the preprocessing file.

**I now have a new project FMRI\_FTCD\_2023**

File to do preprocessing is: ftcd\_preprocessing\_BANOXF.R

I added the information at the top of file explaining about need to run it with Ctrl+Shift+S, to run from source.

It has created processed\_data/ftcd\_data\_short.csv

Script did need tweaking because BAN17 had only 17 markers in PD task.

Goal for today: ensure the GAM LI processing is all OK - check and run script.

Also, friendlify the script for original processing.

Seems to work but I realise that with 6 tasks it is getting unmanageable and needs to be in long form.

**11 Nov 2023**

NB: did a long form script for Nic Badcock's student (different tasks and timings, but would be easy to adapt). I think I already did one for COLA, but if need be look at OzGAM2023, which is now neatly organised so there are separate files for task timings.

Focus now on fMRI processing.

1/2/24

All now on Wolfram project

7/4/24

Two corrections made to processed files.

BAN11 is right-handed

BAN17 now included (had been excluded because of uncoded trials)