iEEGWorkFlow_OCT2020_ZHANG

Part3-Preparing epoch files

STEP#1.

Prepare the necessary files (take YDJ2 for example here):

1) YDJ_-4dB_run1_log.txt: output from the Psychotoolbox collected at EMU. This file should be in the folder:
/Volumes/data/rave_data/ent_data/EMU_NoisyWords/YDJ/audio/

example line is: `4,movie,hoist_kristen_a.mp4,21.051`
which shows (presented No., type, movie_list, time_series)

2) YDJ_Responses-4dB.xlsx: transcribed responses either by decoding the audio recordings from the subject in EMU, or by typing down the responses written by the RA. This file should be in the folder:
/Volumes/data/rave_data/ent_data/EMU_NoisyWords/YDJ/audio/

example line is: `017    3    hounds_cameron.mp4    hounds`
which shows (block No., trial No., movie_list, response)

STEP#2.

1) Create an excel file including all the log files from Step#1-1.

e.g., YDJ_-4dB_logfiles.xlsx. This file should be in the folder:
/Volumes/data/rave_data/ent_data/EMU_NoisyWords/YDJ/audio/

2) Copy the combined (all runs) file to make a new file:
epoch_YDJ_vis_onset.csv

STEP#3.

Create another new file named $subj_responses.xlsx (e.g., YDJ2_responses). This file is also in the folder:
/Volumes/data/rave_data/ent_data/EMU_NoisyWords/YDJ/audio/

1) copy in the columns 'Block', 'Trial', 'Stimulus', and 'Response' from YDJ_Responses-4dB.xlsx;

2) fill in the column 'Condition' based on the presented movie names (e.g., An, Ac);

3) Run R code to extract phonemes for target words & responses, and count the phoneme numbers. This code will help filling out all the rest columns except column 'ConditionBehaviorl';

4) fill in the column 'ConditionBehaviorl' based on the phoneme accuracy%: > 50% is 'correct' (add '1' behind the existing 'Condition'), < = 50% is 'incorrect'(add '0' behind the existing 'Condition'). (e.g., An0_-4dB)

STEP#4.

Concatenate the files from Step #2 & #3 together, generate the epoch file (epoch_$subj.csv). Then you will have the following columns filled: 'Block', 'Time', 'Trial', 'Stimulus', and 'Condition' (copy in the 'ConditionBehaviorl' from step#3). This file should be in the folder: `/Volumes/data/rave_data/ent_data/EMU_NoisyWords/YDJ/rave/meta`

`note: in order for RAVE to recognize it, it has to be named starting with 'epoch_'.`

STEP#5.

Last step, fill out the blank columns in the epoch file.

Get auditory onset data for the epoch file.

Run the R code: augment_epoch_files.R

`(/Volumes/data/rave_data/ent_data/EMU_NoisyWords)`