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## Preprocessed Data from xcp_24p_gsr
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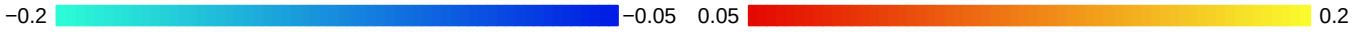
compiled March 22, 2023
DCL events152 positive controls, with matlab convolution and downsampling.
files under `/data/nil-external/dcl/Events152_fMRI_NeuralMechanisms/voxelwiseAnalyses/`

47 people watched movies in four fMRI runs; everyone watched the same movie in each run (four different movies total; same order for everyone). Images were preprocessed with fmriprep (volumes only), then np2 detrended and normalized, and finally parcel-averaged using the Schaefer2018 400x7 parcellation (`analysisPrep.R`). The runs had the same number of volumes for everyone but the movie onsets varied a bit (7.9 to 11.4 seconds); see `e152onsets.txt` and `getOnsets.R`.

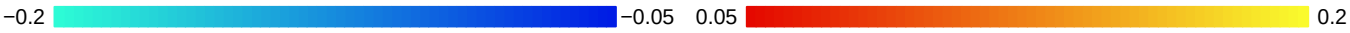
The correlations here follow the same logic as `/knitr/parcelCorrelations/movieParcelCorrelations.rnw`, but with Matt's matlab code for convolving and downsampling the framewise movie measures, `/matlab_resampling/Bezdek_resampling.m`. Tan Nguyen created the files with PE statistic experienced by SEM model for each frame of each movie. These stats are every 0.333 seconds, much faster than the BOLD or the TR (1.483 sec).

Aligning the movie and BOLD timeseries properly before correlating has been a challenge, but seems to be sorted now. The first section gives shows the median correlation for each movie statistic and run at offset 0, which should be (and is) best. A selection of the other offsets are shown on later pages, and it's clear the correlation gets worse as the offset increases.

Correlation

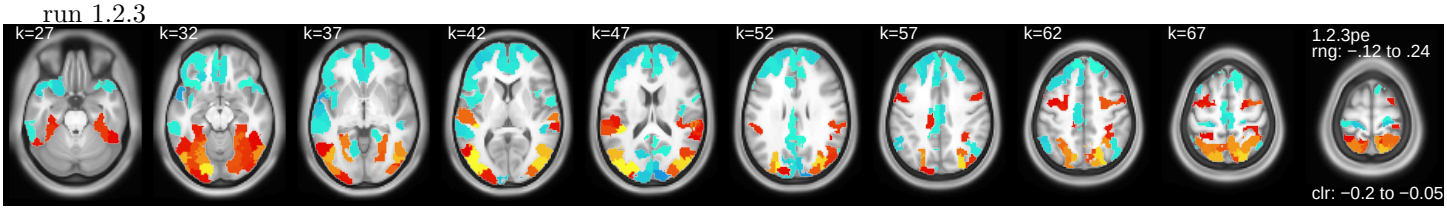


Correlation

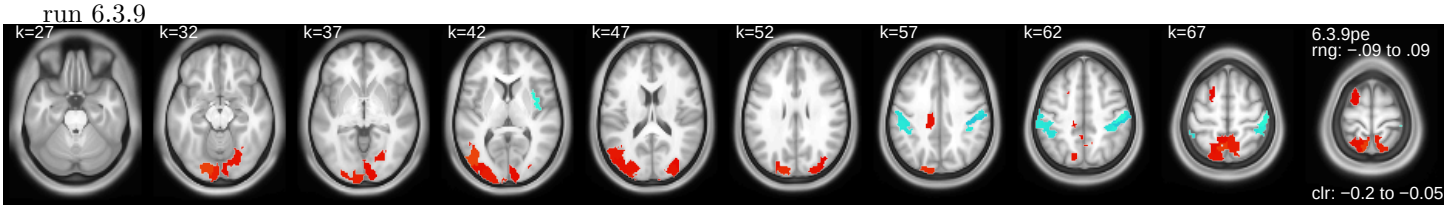


calculate pe correlations with parcel timeseries

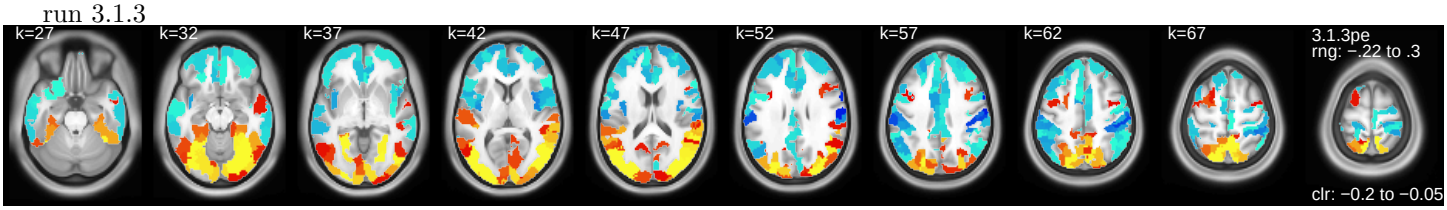
run 1.2.3



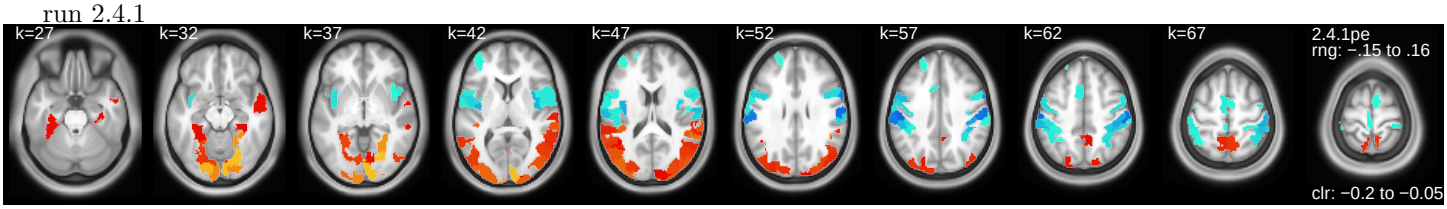
run 6.3.9



run 3.1.3

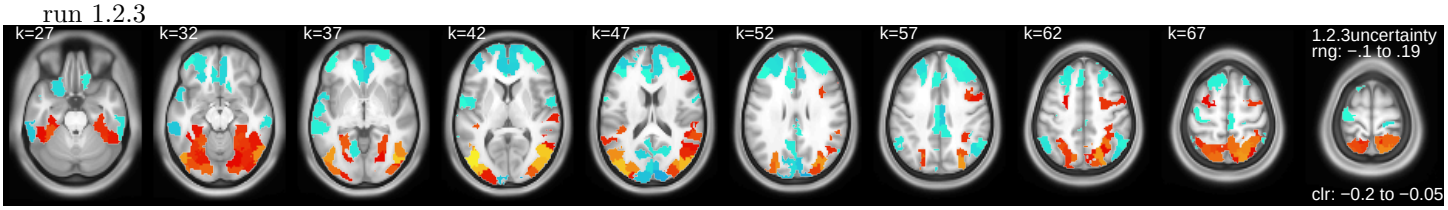


run 2.4.1

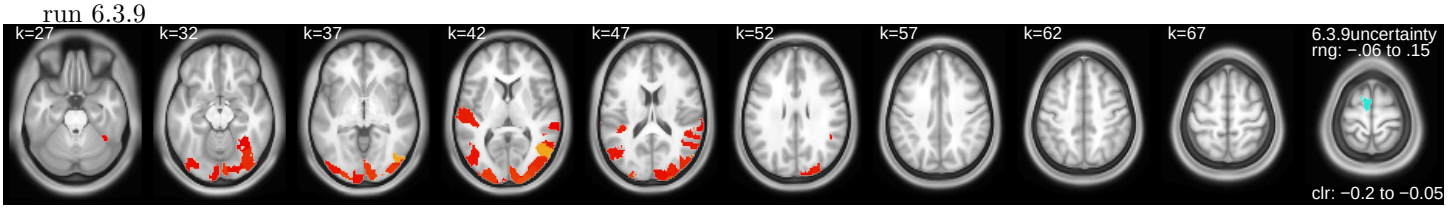


calculate uncertainty correlations with parcel timeseries

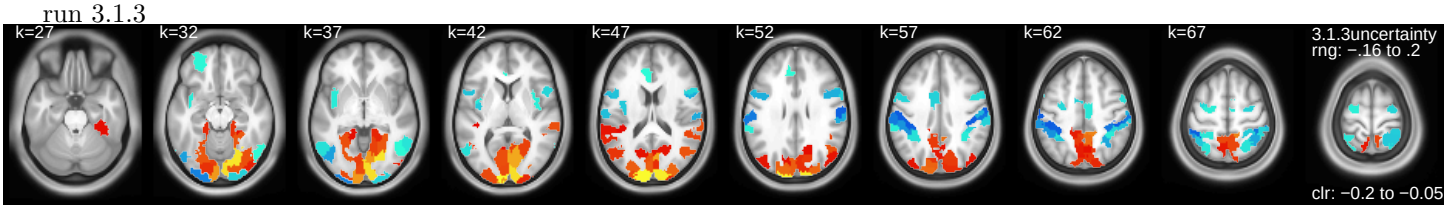
run 1.2.3



run 6.3.9



run 3.1.3



run 2.4.1