HOW TO RUN CANLAB 2ND LEVEL ANALYSIS TEMPLATE SCRIPTS

walkthrough by Marianne Reddan, 2017

code & videos by tor, 2017

This document (editable version, may be updated) :

<https://docs.google.com/document/d/1bGpiXUyxxzu6aG0zAU4x8ELNy3bdUMogW_TiuoDaH0s/edit?ts=591b73b7#>

Videos (see below):

On Youtube and CANlab slack

Example HTML output from these scripts: <https://www.dropbox.com/s/rt8xzf6yq4h0h6e/Example_CANlab_second_level_html_output.zip?dl=0>

What you will need to run:

CANlab core tools, SPM (e.g., SPM12), CANlab second-level analysis scripts

For “signature”-based analysis: CANlab signatures (e.g., NPS); some private

If you are sharing data with CANlab, here is a post with details:

<https://slack-files.com/T09S4HMUL-F1866CCER-6f7a17803b>

If you are applying the NPS and other “signatures” here are two posts about how to do it, and some notes about image scaling across studies:

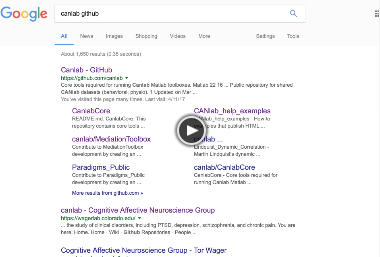
<https://slack-files.com/T09S4HMUL-F17M8PFS7-09e72ec85b>

<https://slack-files.com/T09S4HMUL-F1J0TF0H5-2885e964cc>

# 1. INSTALL THE CANlab\_help\_examples FOLDER FROM GITHUB

Found here <https://github.com/canlab>

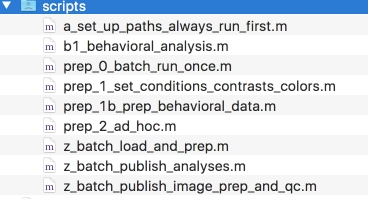
This video provides further instruction.



# 2. SET UP YOUR DATA ANALYSIS FOLDER

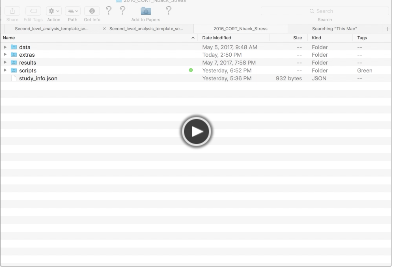
In your **Analysis** folder set up these subfolders:

* data
* extras
* results
* scripts
  + Here copy in a series of scripts from CANLab\_help\_examples



Copy over to your **Analysis** folder ‘study\_info.json’

*This video provides further instruction.*

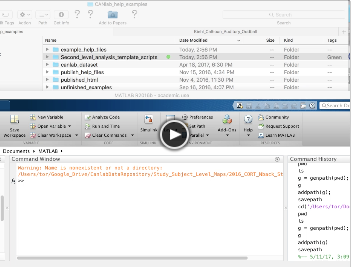


# 3. ADD ALL THE FOLDERS TO PATH

In MATLAB

* genpath(addpath(‘/CANLab\_help\_examples/’))
* genpath(addpath(‘/YOUR\_ANALYSIS\_FOLDER/’))

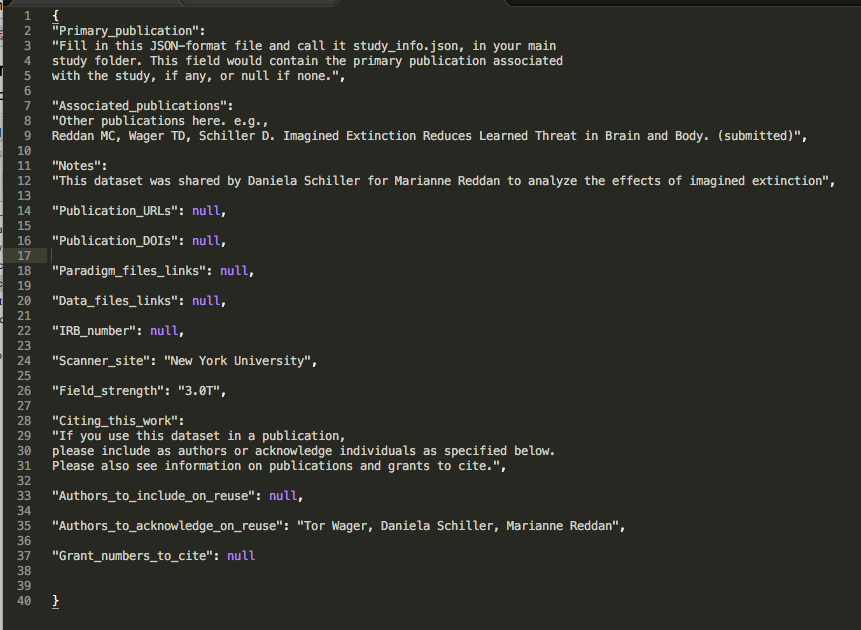
*This video provides further instruction.*

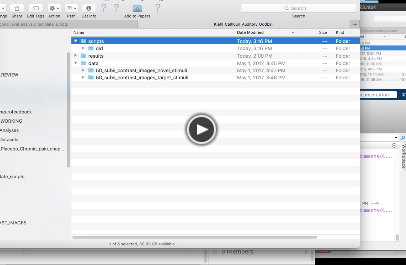


# 4. MODIFY THE TEMPLATE SCRIPTS

1. In a text editor, edit the **study\_info.json** file to fit your data

For example:

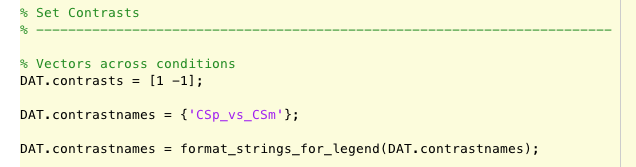


*This video provides further instruction.*

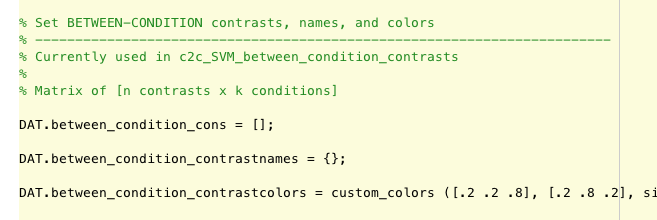
1. Next, in MATLAB open **a\_set\_up\_paths\_always\_run\_first.m** and change:
   1. basedir *to the filepath of your analysis folder*
2. Next, open up **prep\_1\_set\_conditions\_constrasts\_colors.m** and change the paths and wildcards referring to the contrast images in your data folder:
   1. Update the *conditions* to reflect how \*your\* data are set up
      1. DAT.subfolders
      2. DAT.conditions
      3. DAT.structural\_wildcard



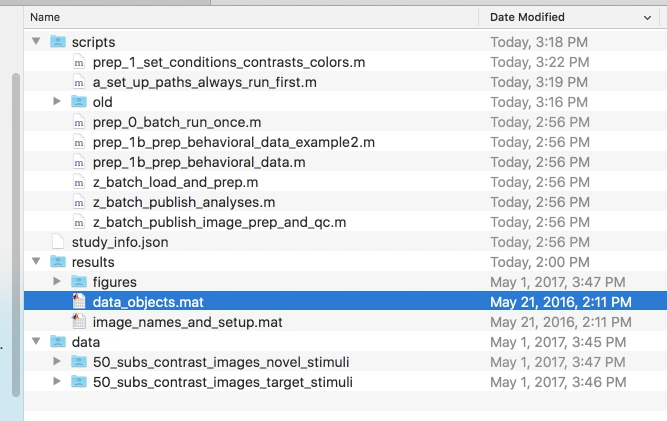
* 1. Update the *contrasts* to reflect what contrasts you are interested in
     1. DAT.contrasts
     2. DAT.contrastnames



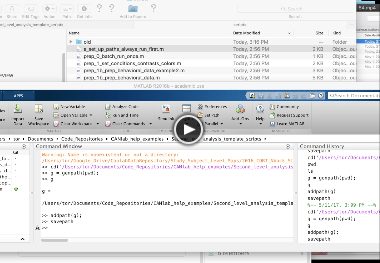
* 1. Update the *colors* or leave to default
  2. Update *between-condition* *contrasts* if you have more than one subject group. If you only one group - leave it empty.



1. Save & run your **a\_set\_up\_paths\_always\_run\_first.m** and **prep\_1\_set\_conditions\_constrasts\_colors.m** in MATLAB
2. Run prep\_2, 3, and 4
3. It will be saved here in **data\_objects.mat**



*This video provides further instruction on steps 4.2 to 4.6.*



# 4. RUN THE BATCH AND PUBLISH

1. There are multiple options for what to run. Try **z\_batch\_publish\_analyses.m**

And you are set. If you have issues with your file structure check out the [youtube channe](https://www.youtube.com/channel/UCKlRfGa03PZqu349IiexlNg)l to learn more ways to use the wildcards.