IPD Contrast Key

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Subject Key: These subjects require unique model specifications due to one or more conditions being excluded due to homogeneous choices.

103 – exclude SD PRO

103\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_103\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

spm\_analysis\_103\_1st\_level\_IPD\_2sessions\_addcompcor.m (bichoice basic)

103\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis.mat (bichoice basic)

107 – exclude SR ANTI

107\_118\_124\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_107\_118\_124\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

spm\_analysis\_107\_118\_124\_1st\_level\_IPD\_2sessions\_addcompcor.m (bichoice basic)

107\_118\_124\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis.mat (bichoice basic)

112 – exclude SR PRO and SD PRO

112\_120\_122\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_112\_120\_122\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

spm\_analysis\_112\_120\_122\_1st\_level\_IPD\_2sessions\_addcompcor.m (bichoice basic)

112\_120\_122\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis.mat (bichoice basic)

113 – exclude SD ANTI

113\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_113\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

113\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis.mat (bichoice basic)

Spm\_analysis\_113\_1st\_level\_IPD\_2sessions\_addcompcor.m (bichoice basic)

118 – exclude SR ANTI

107\_118\_124\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_107\_118\_124\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

120 – exclude SR PRO and SD PRO

112\_120\_122\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_112\_120\_122\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

122 – exclude SR PRO and SD PRO

112\_120\_122\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_112\_120\_122\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

123 – exclude SR PRO

123\_126\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice

spm\_analysis\_123\_126\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

spm\_analysis\_123\_126\_1st\_level\_IPD\_2sessions\_addcompcor (bichoice basic)

124 – exclude SR ANTI

107\_118\_124\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice.mat

spm\_analysis\_107\_118\_124\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

126 – exclude SR PRO

123\_126\_1st\_level\_IPD\_Choice\_SRSD\_joint\_analysis\_monoChoice

spm\_analysis\_123\_126\_1st\_level\_IPD\_2sessions\_monochoice\_ajk.m

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1. Conservative Choice Model n=12

Description: C>base, D>base, C>D, but only including subs that had variety in choice for both SR/SD and PRO/ANTI.

% IDs = {'Sub102\*'; 'Sub104\*'; 'Sub105\*'; 'Sub106\*'; 'Sub108\*'; 'Sub114\*'; 'Sub115\*'; 'Sub117\*'; 'Sub119\*'; 'Sub121\*'; 'Sub128\*';};

Cons

1 'CoopVSBaseline'...

2 'DefectVSBaseline'...

3 'CoopVSDefect'...

4 'CoopVSBaseline\_SR',...

5 'DefectVSBaseline\_SR'...

6 'CoopVSDefect\_SR'...

7 'DefectVSCoop\_SR'...

8 'CoopVSBaseline\_SD'...

9 'DefectVSBaseline\_SD'...

10 'CoopVSDefect\_SD'...

11 'DefectVSCoop\_SD'...

**10/9 – don’t trust these contrasts as order of onsets ANTI/PRO may be off for those with ANTI, then PRO. Correct for Pro, then ANTI. Needs to be checked.**

Checked = 102, 103, 104, 105, 106, 107, 108, 112, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 126,128

NOTE: The batch models have been fixed but **the script still assumes PRO followed by ANTI.** Suggestion for fix: Hard-set all run1’s to PRO, all run2’s to ANTI. This is fine, and allows us to easily test Anti vs PRO, but not easy to test 1st vs 2nd run.

IPD Contrast Key

1. Basic Choice Model n=21 spm\_analysis\_1st\_level\_IPD\_2sessions\_addcompcor.m

Description: C>base, D>base, C>D, had some variation SR vs SD (at least 1 run has variability in both conditions (PRO andor ANTI).

% IDs = {'Sub102\*'; 'Sub103\*'; 'Sub104\*'; 'Sub105\*'; 'Sub106\*'; 'Sub107\*'; 'Sub108\*'; 'Sub112\*'; 'Sub113\*'; 'Sub114\*'; 'Sub115\*'; 'Sub117\*'; 'Sub118\*'; 'Sub119\*'; 'Sub120\*'; 'Sub121\*'; 'Sub122\*'; 'Sub123\*'; 'Sub124\*';'Sub126\*';'Sub128\*';};

Cons

1 'CoopVSDefect'...

'DefectVSCoop'...

'ChoiceALLVSBaseline',...

'CoopVSDefect\_SR'...

'DefectVSCoop\_SR'...

'ChoiceALLVSBaseline\_SR'...

'CoopVSDefect\_SD'...

'DefectVSCoop\_SD'...

'ChoiceALLVSBaseline\_SD'...

'CoopVSBaseline'...

'DefectVSBaseline'...

'CoopVSBaseline\_SR'...

'DefectVSBaseline\_SR'...

'CoopVSBaseline\_SD'...

'DefectVSBaseline\_SD'...

Editing the basic bichoice script. Will now assume that R\_16 exists for all runs. Will additionally call helper scripts for unique\_IDs subjects.

* Script now runs on all basic subs
* To do next: Make helper scripts for unique subs. Already have general purpose add\_contrast\_bichoice\_basic function.
  + Group 103 done.
  + Group 107 done.
  + Group 112 done.
  + Group 123 done.
  + Group 113 done.
* %dataFolders = {'CoopVSDefect','DefectVSCoop','ChoiceALLVSBaseline','CoopVSDefect\_SR','DefectVSCoop\_SR','ChoiceALLVSBaseline\_SR','CoopVSDefect\_SD','DefectVSCoop\_SD','ChoiceALLVSBaseline\_SD', 'CoopVSBaseline', 'DefectVSBaseline', 'CoopVSBaseline\_SR', 'DefectVSBaseline\_SR', 'CoopVSBaseline\_SD', 'DefectVSBaseline\_SD'};
* %ConNum={'01','02','03','04','05','06','07','08','09','10','11','12','13','14','15'};

3. Choice with RT as parametric modulator.

Description – Basic choice model with extra parametric modulator (RT in seconds). This reduces the total number of subjects from the basic model (n=21) because requires at least 2 levels for every factor (must coop and defect at least twice in a run).

\*\* = usable contrasts

Include: 104, 106, 108, 114,115,119,121,

Include but needs unique contrast vector: 103(has compcor\*\*)\*,107\*\*, 118\*\*,120\*\*,122\*\*,123\*\*

Exclude(?, due to having only 1 para-modulator param in a run) – 102(can’t make contrasts, unknown error), 105\*\*, 117\*\*, 128(warning on contrast #5, Con numbers shifted, exclude for now), 112 (Warning here too, exclude for now),113(similar con issues),124\*\*(can exclude SD run 2 – this was able to be estimated and looks reasonable, not sure why it works), 126

^*Some of these seem to be estimable, not sure why.*

1. 'CoopRTVSBaseline'...

2. 'DefectRTVSBaseline'...

3. 'CoopRTVSDefectRT'...

4. 'CoopRTVSBaseline\_SR',...

5. 'DefectRTVSBaseline\_SR'...

6. 'CoopRTVSDefectRT\_SR'...

7. 'CoopRTVSBaseline\_SD'...

8. 'DefectRTVSBaseline\_SD'...

9. 'CoopRTVSDefectRT\_SD'...

4. monoChoice\_model\_basic (no RT paramod)  
New approach for choice model design.

Column 1 -ChoiceALL- task regressor choice onsets

ALL CHOICE ONSETS IN THIS COLUMN

Column 2 –CHoiceType- ParaMod on Regressor1

1 – COOP CHOICE

-1 – DEFECT CHOICE

*Optional*

Column 3 – ParaMod2 on Regressor1

RT for each choice; combine with weight on PMod1 to examine ChoiceType\*RT

Monochoice (no RT)

'CoopVSDefect'...

'DefectVSCoop'...

'ChoiceALLVSBaseline',...

'CoopVSDefect\_SR'...

'DefectVSCoop\_SR'...

'ChoiceALLVSBaseline\_SR'...

'CoopVSDefect\_SD'...

'DefectVSCoop\_SD'...

'ChoiceALLVSBaseline\_SD'...

%monochoice basic:

dataFolders={'CoopVSDefect', 'DefectVSCoop','ChoiceALLVSBaseline', 'CoopVSDefect\_SR', 'DefectVSCoop\_SR', 'ChoiceALLVSBaseline\_SR','CoopVSDefect\_SD', 'DefectVSCoop\_SD', 'ChoiceALLVSBaseline\_SD'};

ConNum={'01','02','03','04','05','06','07','08','09'};