102008_Cuedts_singleNEUROIMAGING.rnw
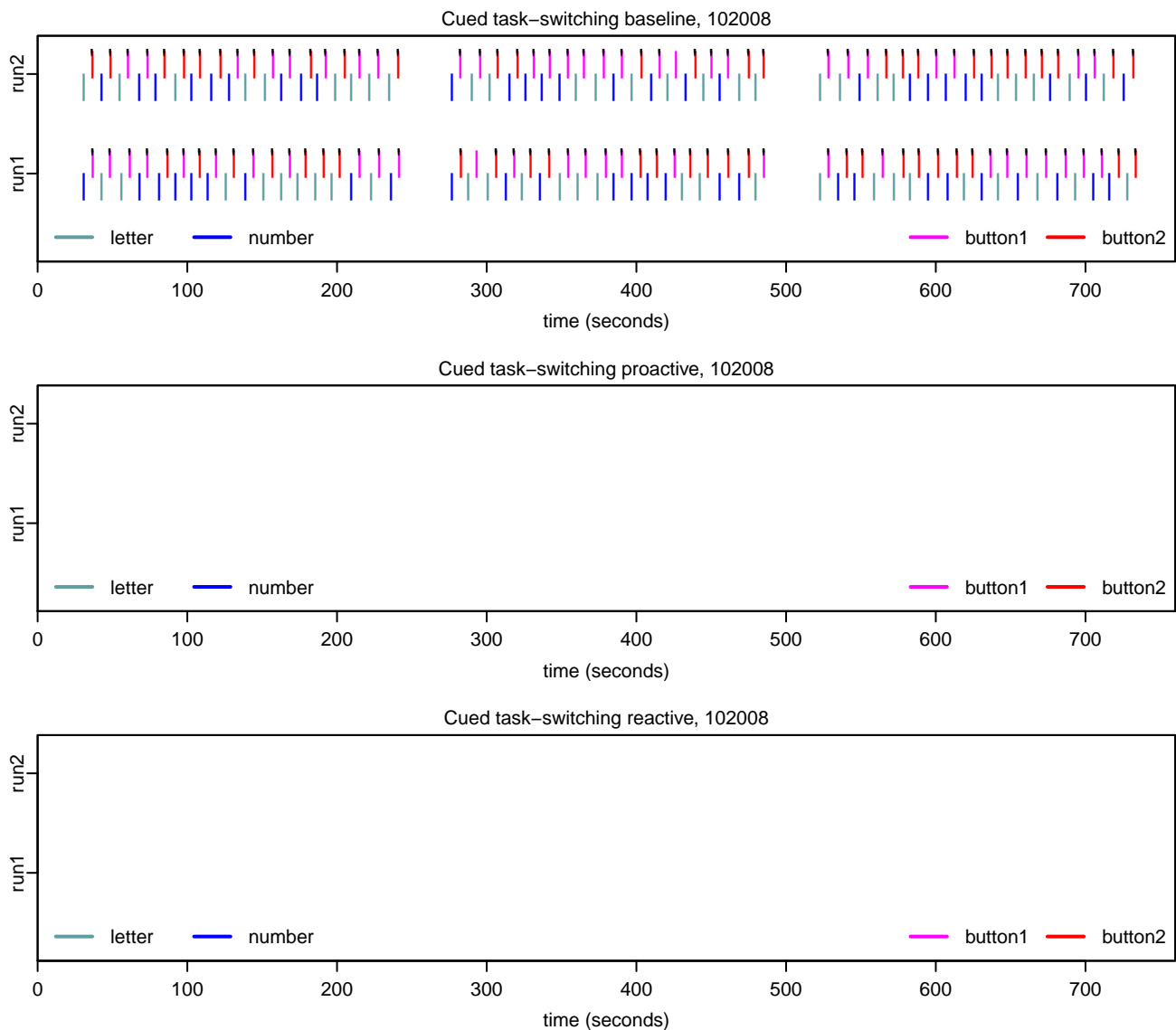
compiled December 3, 2018

This file summarizes 102008's behavioral performance on the DMCC Cuedts task, NEUROIMAGING version.

Quality Control: expected stimuli and responses?

The first block of code reads in the eprime output files (e-recovery or .csv), and then checks whether the expected number and types of trials was present in each run and block. Unless a run was known to end early, any error messages printed below should be investigated.

```
## [1] "Found an error in the Cuedts trial counting or stimulus matching? FALSE"
```

These plots show the time and type of every trial (blue and green) and response (red and pink); black tick marks indicate correct trials. The trial types and responses should be random (e.g., not an entire block of letter), and errors should be approximately equal across the runs (check if a participant appears to have stopped responding or suddenly increased in errors).
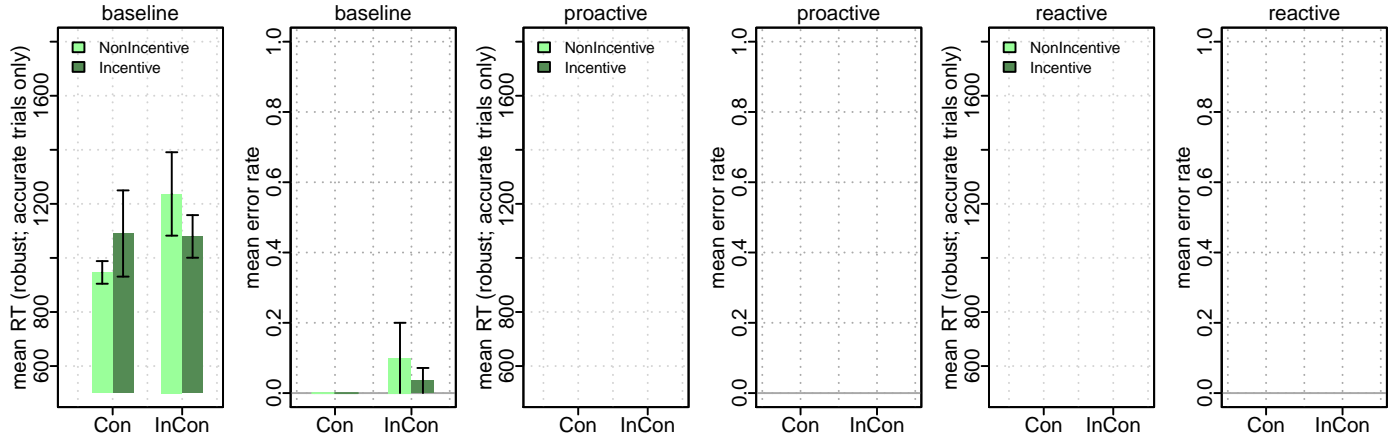
Single-subject statistics for 102008

RT: We hope that RT will be faster (shorter bars) on Inc than noInc in proactive, but faster on noInc in reactive.
Error Rate: We hope that the error rate will be worse (higher bars) on InCongruent than Congruent trials, with this difference smaller in reactive than proactive.
Robust statistics for RT? TRUE (Robust statistics never used for ERR, since typically very few errors.)


```
## [1] divided by Incentive/NoIncentive and Congruent/Incongruent:
##    session inc.id con.id num.trials ERR.mean ACC.mean ACC.sem  RT.mean  RT.sem
## 1 baseline  noInc    Con         62    0.000    1.000   0.000  946.400  41.821
## 2 baseline    inc    Con          8    0.000    1.000   0.000 1090.375 159.478
## 3 baseline  noInc  InCon         10    0.100    0.900   0.100 1236.667 154.299
## 4 baseline    inc  InCon         28    0.036    0.964   0.036 1079.565  78.830
```


```
## [1] divided by Incentive/NoIncentive and Switch/Repeat:
##    session inc.id switch.id num.trials ERR.mean ACC.mean ACC.sem  RT.mean  RT.sem
## 1 baseline  noInc    switch         40    0.025    0.975   0.025 1035.152  57.956
## 2 baseline    inc    switch         17    0.059    0.941   0.059 1022.643  97.194
## 3 baseline  noInc    repeat         28    0.000    1.000   0.000  949.542  70.131
## 4 baseline    inc    repeat         17    0.000    1.000   0.000 1108.667 117.073
## [1] (note: fewer trials in each session since first trial of each block ommited)
```

Cuedts derived measures for 102008

Calculated from the mean RT and error rates in the above table, InCongruent - Congruent, Incentive and noIncentive trials separately.

```
## [1] "Incentive TRCE baseline RT: -10.81 ERR: 0.036"
## [1]
## [1] "Nonincentive TRCE baseline RT: 290.267 ERR: 0.1"
```

The reward and critical RT (how fast the participant must respond to receive a reward in Proactive and Reactive) are in lines 8 and 3 (respectively) of the `CuedTS Tracking and Results.txt` files written by the eprime scripts during the final session. If this file is present, it is read and values printed below.

```
## [1] critical RT: 1043
## [1] reward: $0
```