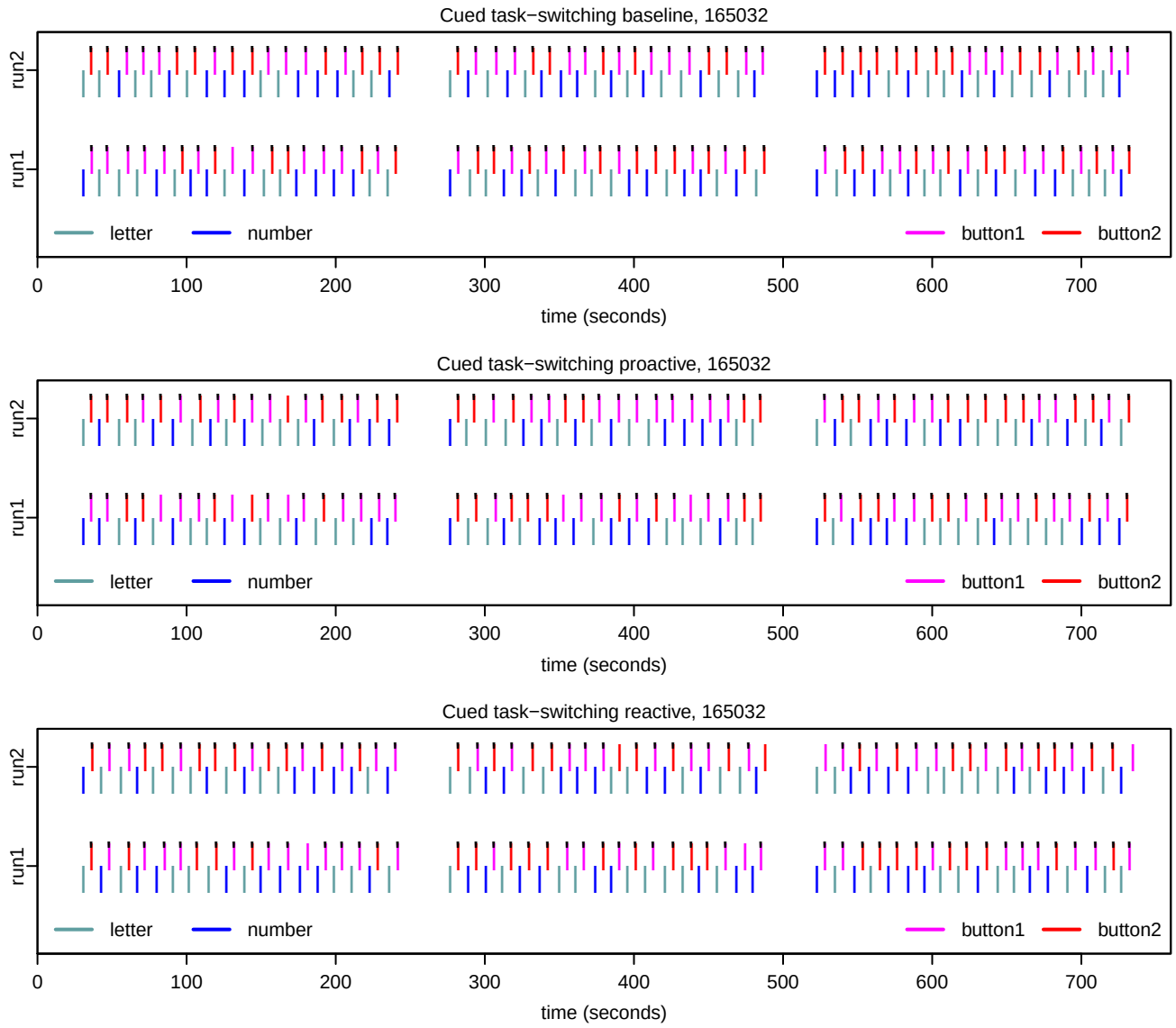
**165032_Cuedts_singleNEUROIMAGING.rnw**
compiled November 27, 2018
This file summarizes 165032's behavioral performance on the DMCC Cuedts task, NEUROIMAGING version.

## 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.

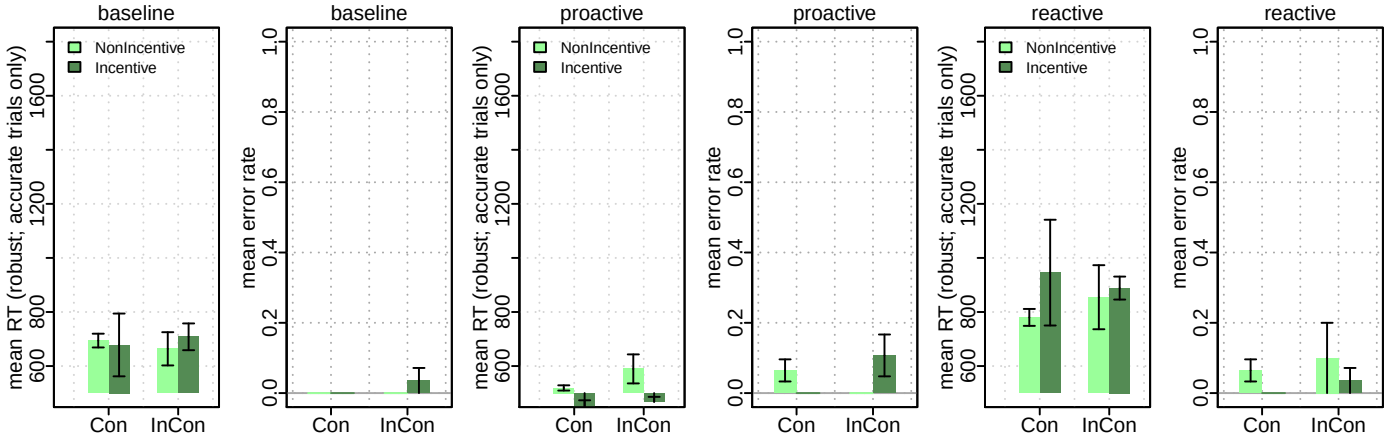
```
## [1] "Found an error in the Cuedts trial counting or stimulus matching? FALSE"
```

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 165032

**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   0.000 694.260  25.439
## 2   baseline    inc    Con          8    0.000    1.000   0.000 678.125 116.121
## 3   baseline  noInc  InCon         10    0.000    1.000   0.000 663.750  61.500
## 4   baseline    inc  InCon         28    0.036    0.964   0.036 708.130  49.534
## 5  proactive  noInc    Con         62    0.065    0.935   0.031 519.021   9.665
## 6  proactive    inc    Con          8    0.000    1.000   0.000 449.875  23.466
## 7  proactive  noInc  InCon         10    0.000    1.000   0.000 589.500  53.679
## 8  proactive    inc  InCon         28    0.107    0.893   0.060 467.667  18.323
## 9   reactive  noInc    Con         62    0.065    0.935   0.031 779.938  31.263
## 10  reactive    inc    Con          8    0.000    1.000   0.000 945.625 195.591
## 11  reactive  noInc  InCon         10    0.100    0.900   0.100 854.667 118.491
## 12  reactive    inc  InCon         28    0.036    0.964   0.036 888.435  42.481
```

```
## [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         45    0.000    1.000   0.000 696.514 35.400
## 2   baseline    inc    switch         19    0.053    0.947   0.053 708.812 54.716
## 3   baseline  noInc    repeat         23    0.000    1.000   0.000 696.053 36.155
## 4   baseline    inc    repeat         15    0.000    1.000   0.000 689.846 75.963
## 5  proactive  noInc    switch         37    0.027    0.973   0.027 545.767 15.197
## 6  proactive    inc    switch         20    0.050    0.950   0.050 452.471 15.736
## 7  proactive  noInc    repeat         31    0.097    0.903   0.054 503.083 15.636
## 8  proactive    inc    repeat         14    0.143    0.857   0.097 479.400 29.663
## 9   reactive  noInc    switch         36    0.083    0.917   0.047 867.333 48.270
## 10  reactive    inc    switch         20    0.050    0.950   0.050 880.647 86.036
## 11  reactive  noInc    repeat         31    0.032    0.968   0.032 719.500 38.326
## 12  reactive    inc    repeat         15    0.000    1.000   0.000 896.231 49.783
## [1] (note: fewer trials in each session since first trial of each block ommited)
```

```
## [1] "Reward rate: proactive NonIncentive 0.944 (68 correct of 72 trials)."
## [1] "Reward rate: proactive Incentive 0.917 (33 correct of 36 trials)."
## [1] "Reward rate: reactive NonIncentive 0.931 (67 correct of 72 trials)."
## [1] "Reward rate: reactive Incentive 0.972 (35 correct of 36 trials)."
```

## Cuedts derived measures for 165032

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

```
## [1] "Incentive TRCE baseline RT: 30.005 ERR: 0.036"
## [1] "Incentive TRCE proactive RT: 17.792 ERR: 0.107"
## [1] "Incentive TRCE reactive RT: -57.19 ERR: 0.036"
## [1]
## [1] "Nonincentive TRCE baseline RT: -30.51 ERR: 0"
## [1] "Nonincentive TRCE proactive RT: 70.479 ERR: -0.065"
## [1] "Nonincentive TRCE reactive RT: 74.729 ERR: 0.035"
```