

102008_Stroop_singleNEUROIMAGING.rnw

compiled November 27, 2018

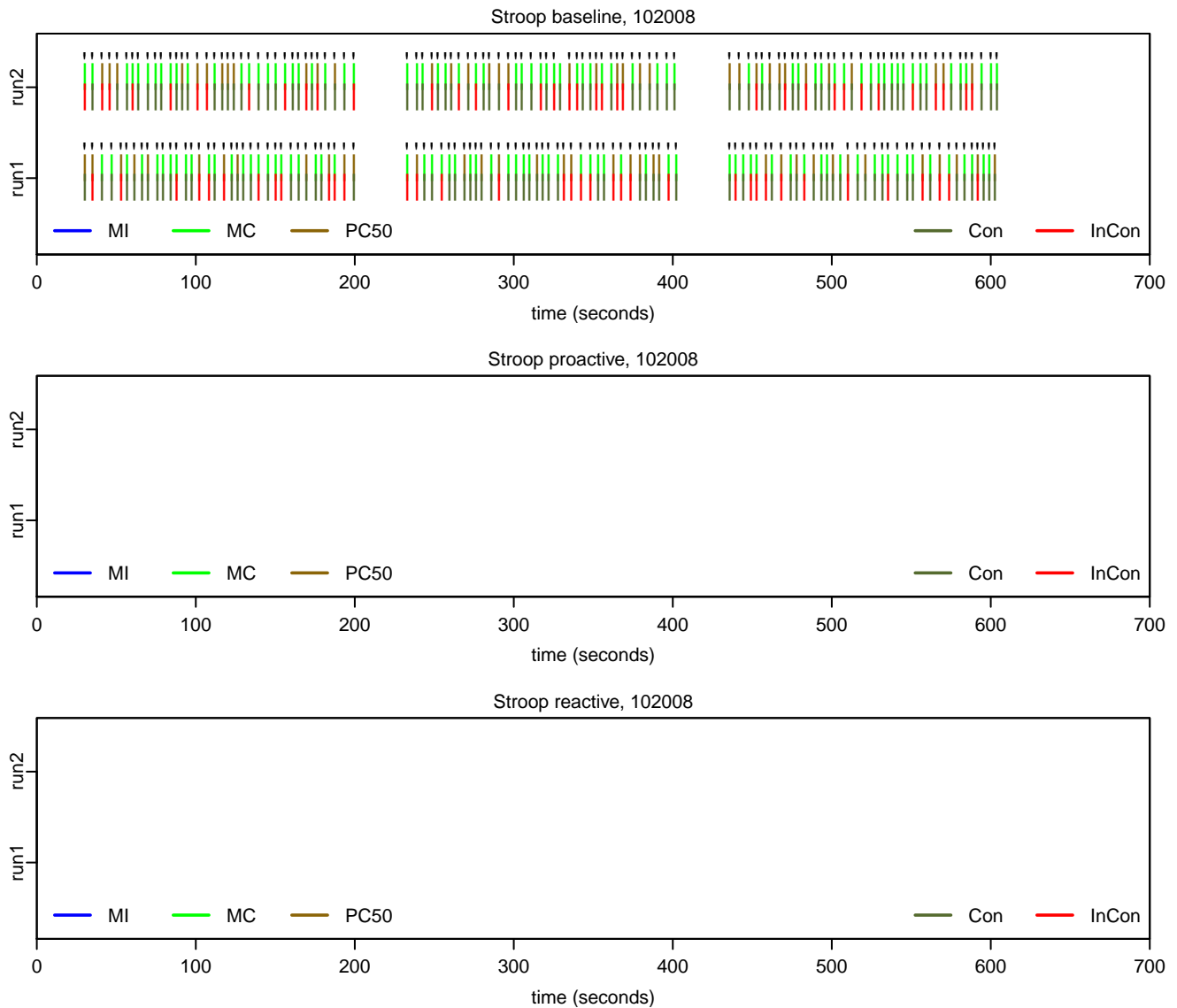
This file summarizes 102008's behavioral performance on the DMCC Stroop task, NEUROIMAGING version.

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 Stroop trial counting or color matching? FALSE"
```

These plots show the time and type of every trial. If accuracy is available, black tick marks indicate correct trials. The trial types should be mixed within blocks, and errors should be approximately equal across the runs. There are many more Congruent trials (olive green lines in second row) than InCongruent (red lines) in baseline, but more InCongruent (red) in proactive. There are no blue (MI) trials in baseline, and no green (MC) in proactive. Brown (PC50) lines occur in all runs. The reactive runs are longer than baseline and proactive.



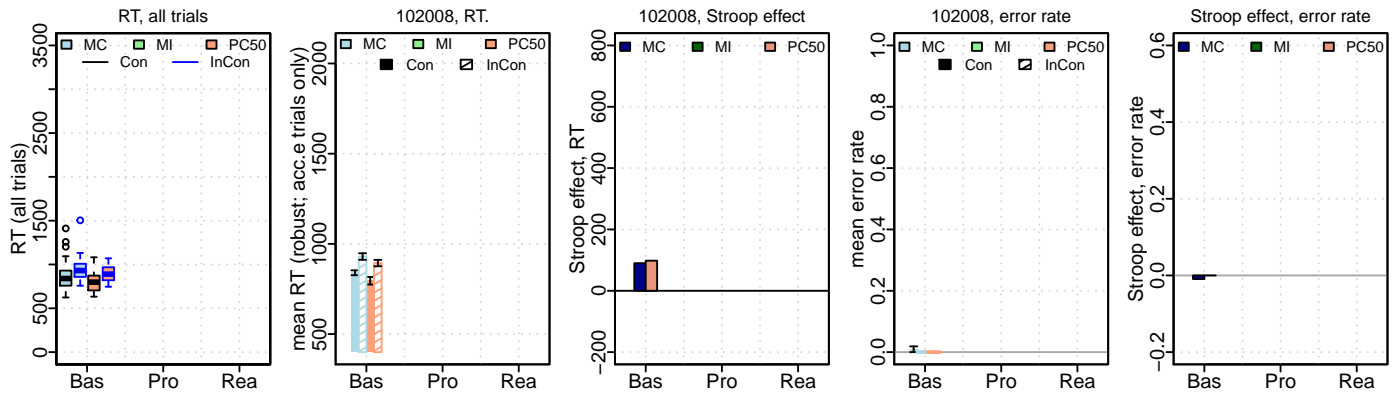
Single-subject statistics for 102008

The Stroop effect is incongruent - congruent (and hopefully positive). For PC50, we hope that the difference will be smaller for Pro than Rea or Bas. We also hope for a smaller effect in MI (Pro, Rea) than MC (Bas).

The boxplots show the range of reaction times detected by the matlab code. Boxes should be present in all sessions, and all approximately the same size. If the boxplots are very flat (more like lines) for a session, the matlab code likely failed, and the recordings should be investigated. Numbers printed below the boxplots are the number of NAs. A few (less than 5) in a run are ok; more should be investigated.

Robust statistics for RT? TRUE (Robust statistics never used for error rate, since typically very few errors.)

```
## [1] "no Stroop ACC: proactive"
## [1] "no Stroop ACC: reactive"
```



```
## [1] mean (robust) RT estimates
##   session trial.type lwpc.type num.trials silence.mean silence.sem
## 1 baseline      Con        MC       106    839.7965    13.37401
## 2 baseline      Con       PC50        36    795.5667    20.85482
## 3 baseline    InCon        MC        36    929.8000    18.07819
## 4 baseline    InCon       PC50        36    893.7333    17.65709
## [1]
## [1] mean performance estimates
##   session trial.type lwpc.type total.num.trials num.haveACC  ERR.mean  ERR.sem
## 1 baseline      Con        MC           108          107 0.009345794 0.009345794
## 2 baseline      Con       PC50           36           36 0.000000000 0.000000000
## 3 baseline    InCon        MC           36           36 0.000000000 0.000000000
## 4 baseline    InCon       PC50           36           36 0.000000000 0.000000000
```

Stroop derived measures for 102008

Calculated from the mean RT and error rates in the above tables.

```
## [1] Stroop effect (InCon - Con)
##      session lwpc.type  RT.diff    ERR.diff
## 1 baseline      MC 90.00349 -0.009345794
## 2 baseline      PC50 98.16667  0.000000000
## 3      <NA>      <NA>      NA          NA
## 4      <NA>      <NA>      NA          NA
## 5      <NA>      <NA>      NA          NA
## 6      <NA>      <NA>      NA          NA
## [1]
## [1]
## [1] "Transfer cost, Bas ERR: 0"
## [1] "Transfer cost, Bas RT: -36.067"
```