

132017_Axcpt_singleNEUROIMAGING.rnw

compiled November 27, 2018

This file summarizes 132017's behavioral performance on the DMCC Axcpt task, NEUROIMAGING version.

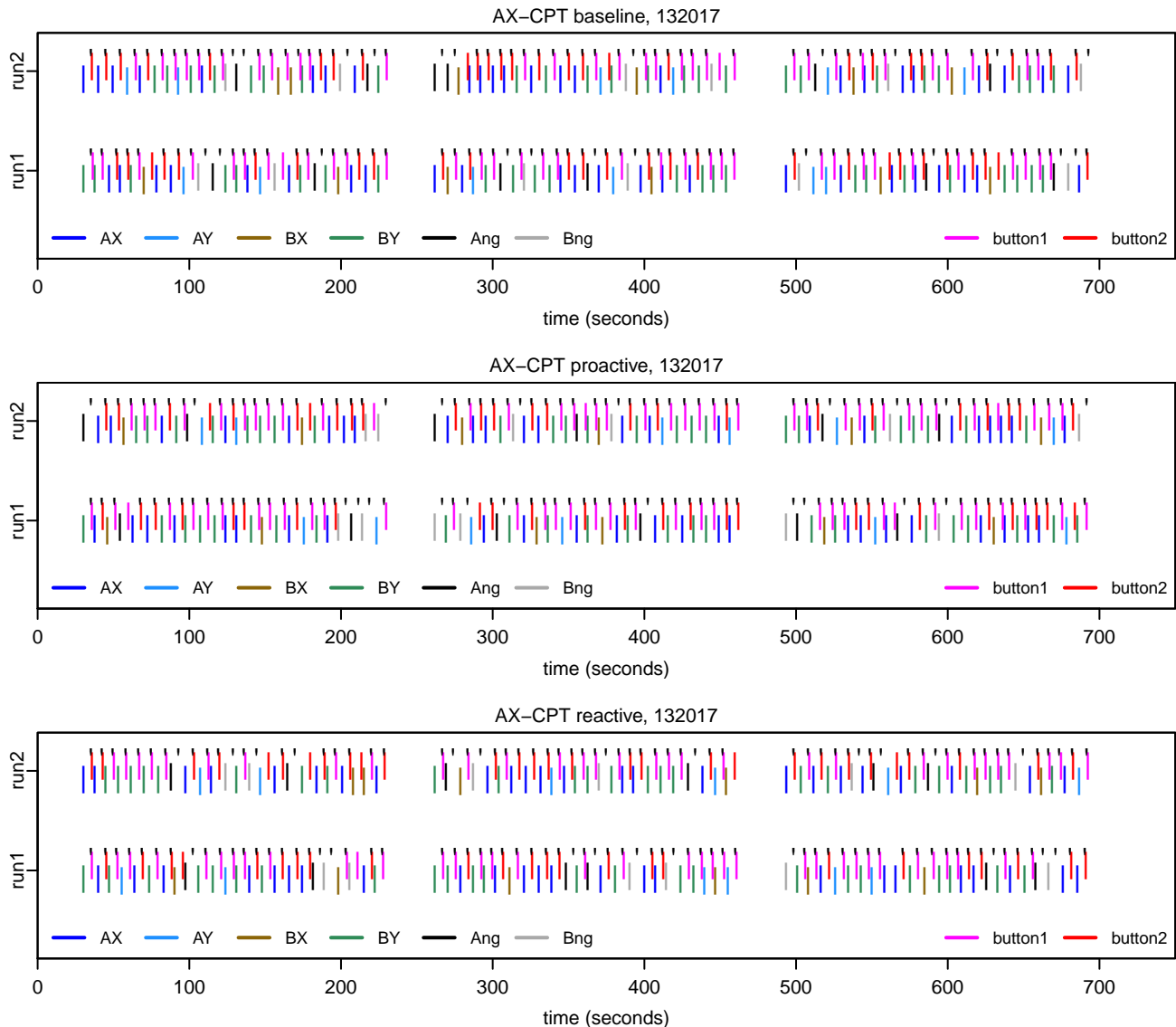
Quality Control: expected stimuli and responses?

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 AX-CPT trial counting or stimulus matching? FALSE"
```

These plots show the time and type of every trial (blues and greens) and response (reds); black tick marks indicate correct trials. The trial types and responses should be random (e.g., not an entire block of AX), and errors should be approximately equal across the runs (check if a participant appears to have stopped responding or suddenly increased in errors).

To increase visibility of the different trial-type colors, AX and BY are plotted in the center, AY and BX a little below, and Ang and Bng a bit above. There are tick marks (indicating correct responses) for no-go trials without a response (since no response is correct).



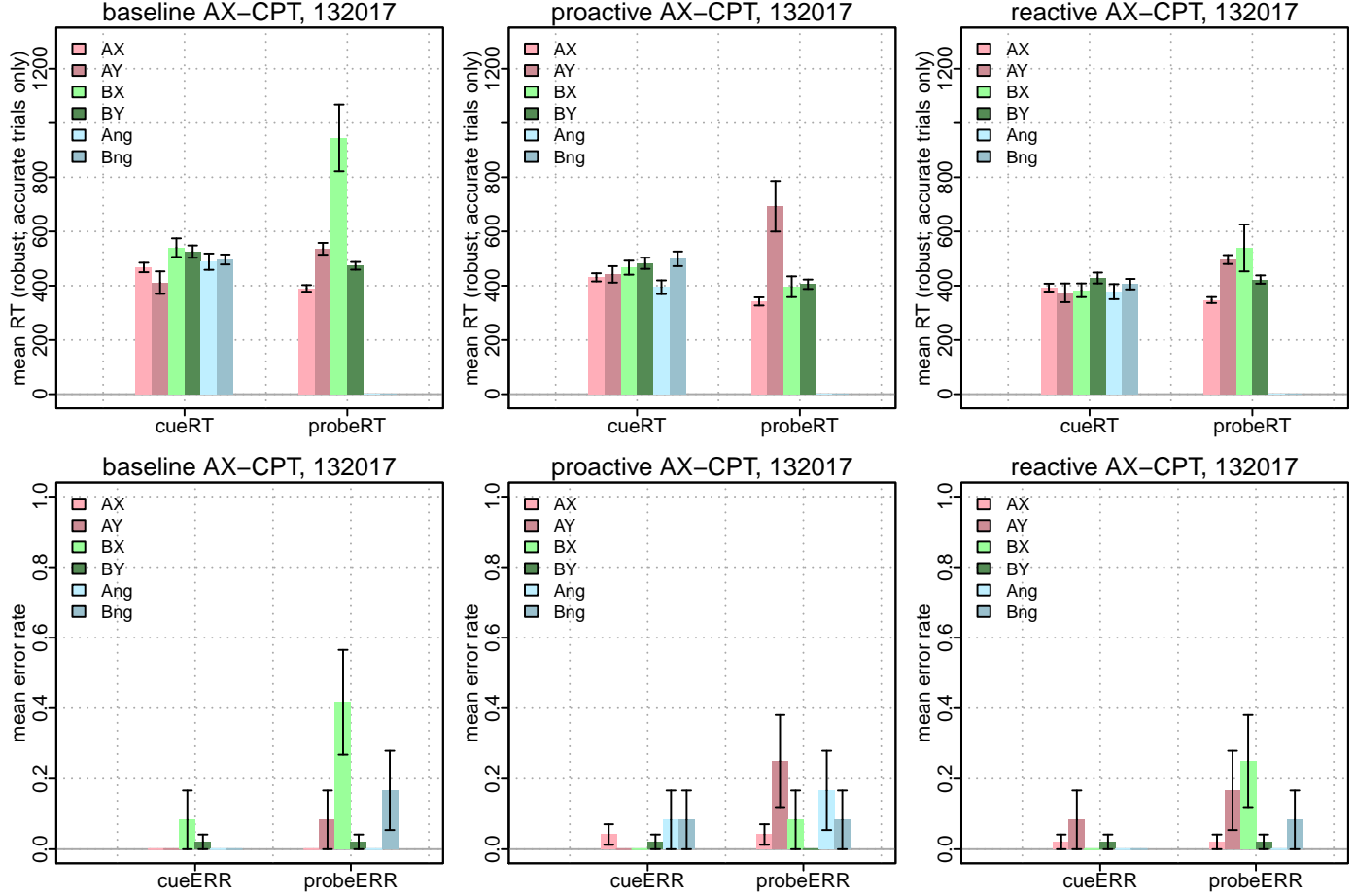
Single-subject statistics for 132017

ACC is accuracy rate; ERR is error rate. Plot error bars are standard error of the mean.

cue: We hope for consistent RT and consistently low error rates (high accuracy) across sessions and trial types.

probe: We hope that the error rate will be higher and RT slower on AY and BX trials than AX and BY trials.

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



##	session	stim.id	num.trials	cueERR.mean	cueRT.mean	probeERR.mean	probeACC.mean	probeRT.mean
## 1	baseline	AX	48	0.00000000	467.2750	0.00000000	1.00000000	390.1500
## 2	baseline	AY	12	0.00000000	411.5000	0.08333333	0.91666667	536.0000
## 3	baseline	BX	12	0.08333333	540.2222	0.41666667	0.58333333	944.8571
## 4	baseline	BY	48	0.02083333	525.6923	0.02083333	0.97916667	473.3590
## 5	baseline	Ang	12	0.00000000	488.5000	0.00000000	1.00000000	0.0000
## 6	baseline	Bng	12	0.00000000	496.6000	0.16666667	0.83333333	0.0000
## 7	proactive	AX	48	0.04166667	430.9737	0.04166667	0.95833333	342.0526
## 8	proactive	AY	12	0.00000000	441.7000	0.25000000	0.75000000	692.8889
## 9	proactive	BX	12	0.00000000	466.5000	0.08333333	0.91666667	396.3333
## 10	proactive	BY	48	0.02083333	482.7436	0.00000000	1.00000000	405.4000
## 11	proactive	Ang	12	0.08333333	394.4444	0.16666667	0.83333333	0.0000
## 12	proactive	Bng	12	0.08333333	499.0000	0.08333333	0.91666667	0.0000
## 13	reactive	AX	48	0.02083333	392.9487	0.02083333	0.97916667	347.2051
## 14	reactive	AY	12	0.08333333	373.7778	0.16666667	0.83333333	496.3750
## 15	reactive	BX	12	0.00000000	383.2000	0.25000000	0.75000000	539.4444
## 16	reactive	BY	48	0.02083333	428.4615	0.02083333	0.97916667	422.8462
## 17	reactive	Ang	12	0.00000000	378.1000	0.00000000	1.00000000	0.0000
## 18	reactive	Bng	12	0.00000000	405.7000	0.08333333	0.91666667	0.0000

AX-CPT derived measures for 132017

Robust statistics for RT? TRUE (Only used for RT mean calculations.)

```
## [1] "AX-CPT accuracy-based derived measures"
##   session.id Acue.bias BX.interference dprime.context PBI.errors
## 1   baseline 0.5601891      1.677843      2.512786 -0.5714286
## 2  proactive 0.5099491      1.120378      2.833419  0.4000000
## 3   reactive 0.5012235      1.256730      2.487012 -0.1666667
## [1] ""
## [1] "AX-CPT RT derived measures"
##   session.id BX.interference.RT      PBI.RT BX.interference.RTnorm PBI.RTnorm
## 1   baseline      471.498168 -0.27609493      2.61668901 -0.8264630
## 2  proactive      -9.066667  0.27226359      -0.05359681  1.2539850
## 3   reactive     116.598291 -0.04158007      0.94388194 -0.2227314
```