CFS, 2AFC, Short Study Lists

pss

February 10, 2016

summary of results for cfs study

Version: presentation in lists of 16. Items studied x3 times Note that second/third presentation was in the same order as first presentations all items studied for total of .5 seconds (including ramping up and down)

```
cutoff = 3 # only look at CFS with PAS 2 or 1
nPresent = 3 # presented 3 times
nStudy = nTrials * nPresent
```

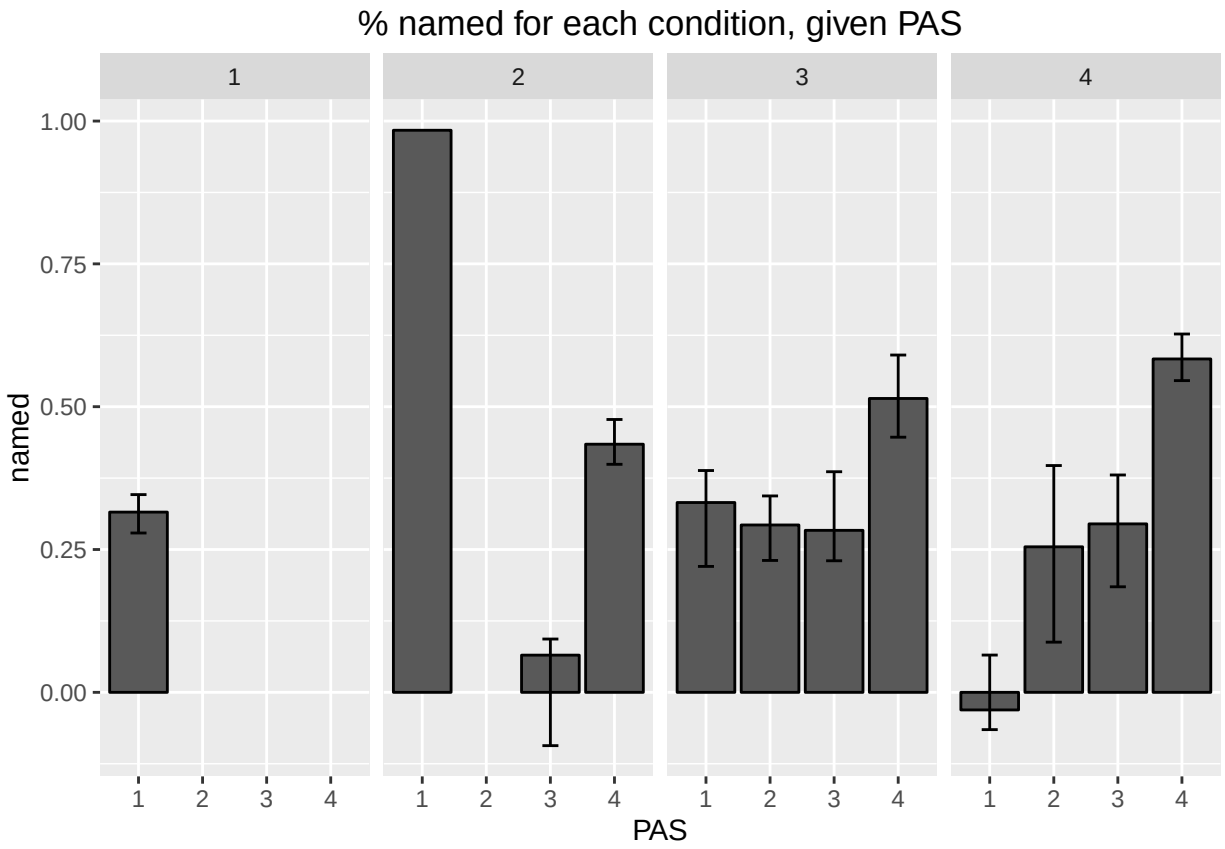
The following is a graph of the proportion of times that an item was named, conditioned on a given PAS response.

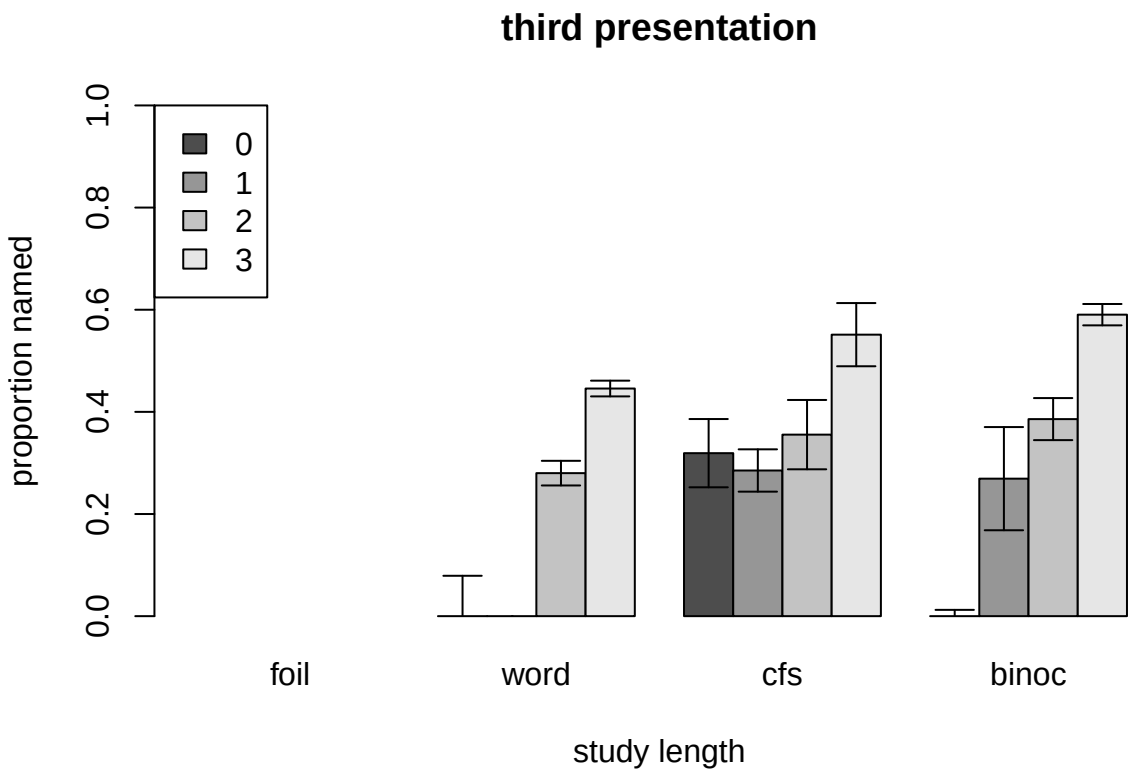
Note that eror bars are weird because they're just simple SEMs. Currently unclear about the best ways to make error bars for variables bounded between 1 and 0.

Additionally, it is somewhat misleading to include error bars across a within-subjects factor. They could be higher than depicted, and do not accurately reflect whatever statistics will eventually be performed.

```
dfwc
```

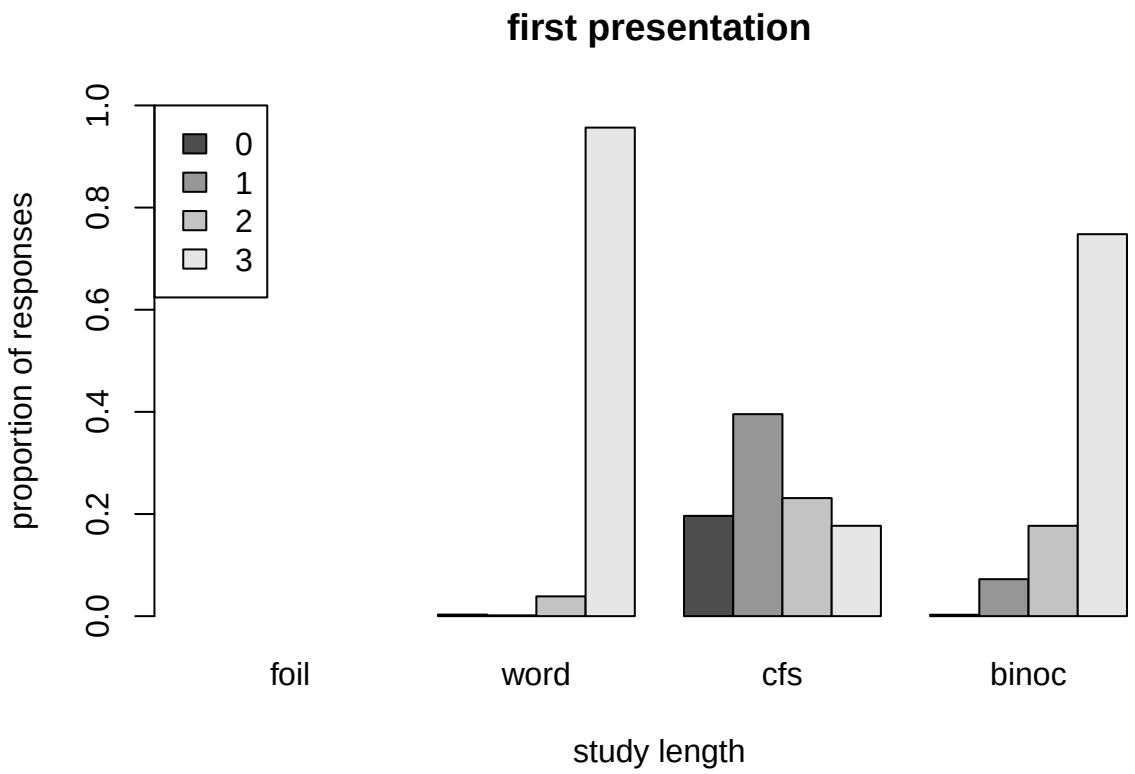
```
##    condition studyResp3   N     named  named_norm         sd         se
## 1          1          1 768 0.3125000  0.31551367 0.47452672 0.01712301
## 2          2          1   1 1.0000000  0.98388518         NA         NA
## 3          2          3   3 0.0000000  0.06511450 0.03755326 0.02168138
## 4          2          4 641 0.4383775  0.43433866 0.50581482 0.01997848
## 5          3          1 115 0.3043478  0.33227269 0.45440086 0.04237310
## 6          3          2 268 0.2873134  0.29296892 0.46947787 0.02867793
## 7          3          3 146 0.3082192  0.28357830 0.47640709 0.03942773
## 8          3          4 189 0.5185185  0.51440693 0.50123398 0.03645941
## 9          4          1   3 0.0000000 -0.03080479 0.02627822 0.01517174
## 10         4          2  33 0.2424242  0.25471428 0.43596585 0.07589191
## 11         4          3  92 0.2826087  0.29487569 0.47260838 0.04927283
## 12         4          4 590 0.5864407  0.58356118 0.50437182 0.02076466
##             ci
## 1  0.03361352
## 2          NA
## 3  0.09328746
## 4  0.03923130
## 5  0.08394078
## 6  0.05646364
## 7  0.07792732
## 8  0.07192211
## 9  0.06527871
## 10 0.15458677
## 11 0.09787442
## 12 0.04078179
```


% named for each condition, given PAS
1
2
3
4
named
1.00
0.75
0.50
0.25
0.00
1
2
3
4
PAS



!!

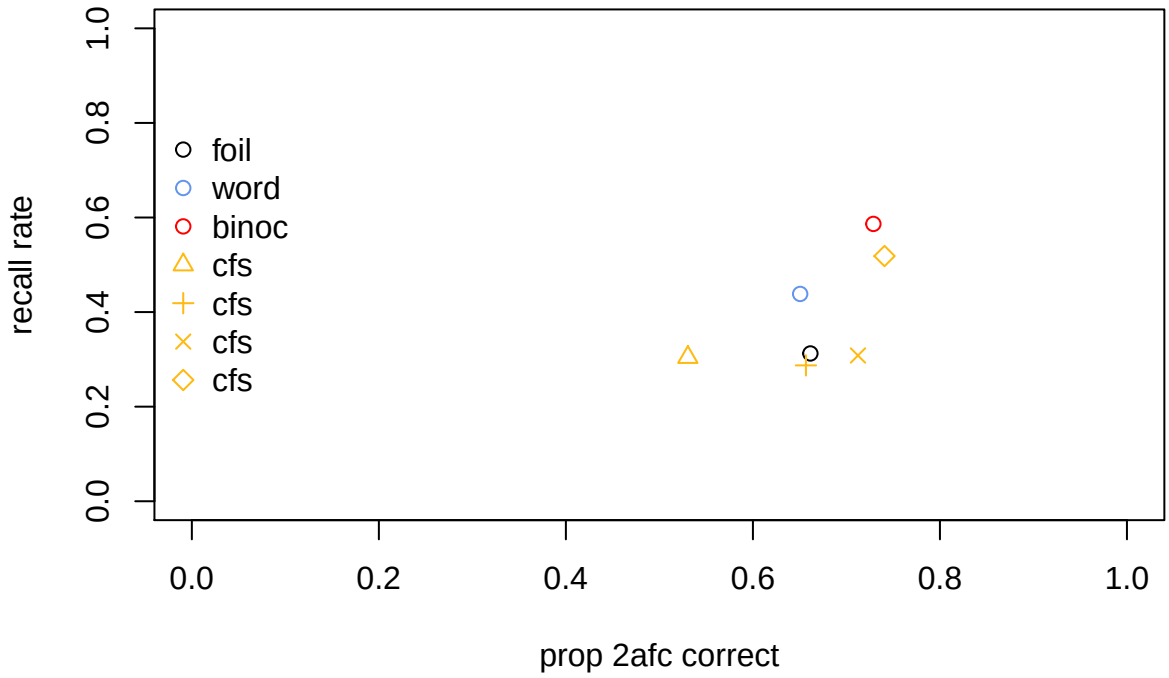
Next up is a plot of the proportion of times that an item was given a particular PAS rating



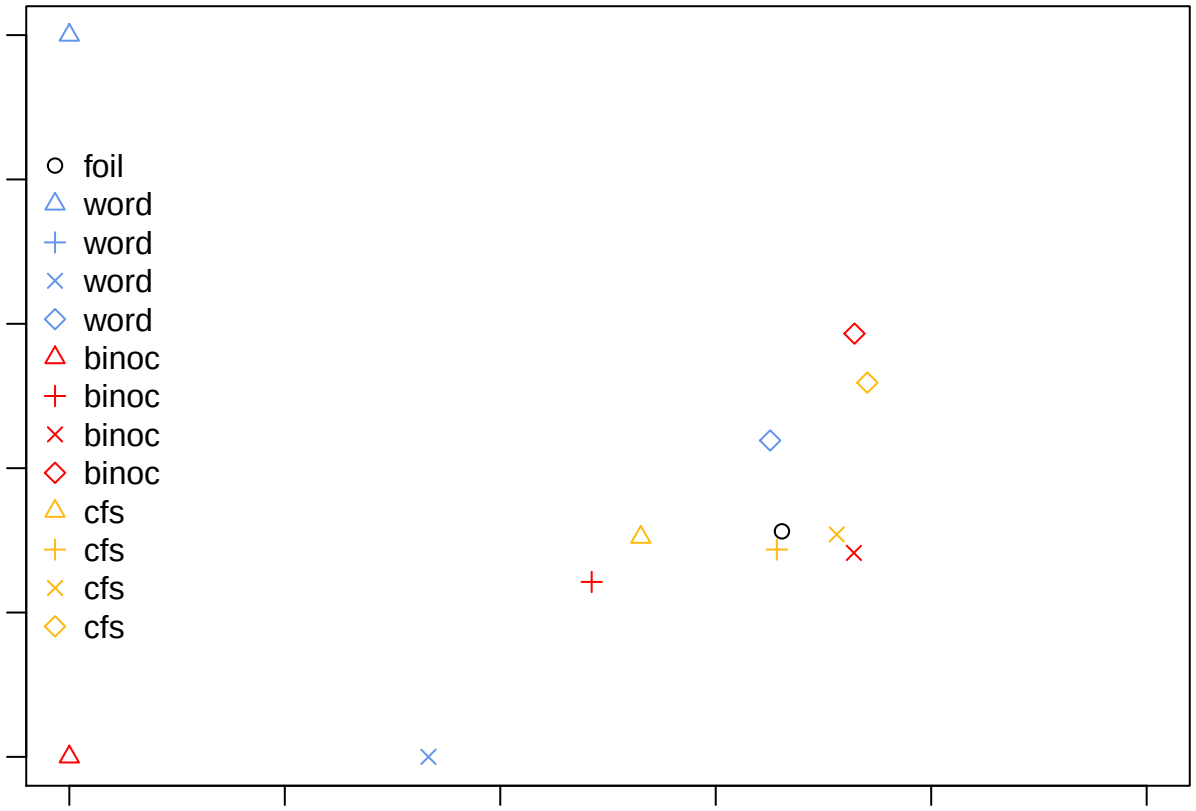
!!

now, scatter plots

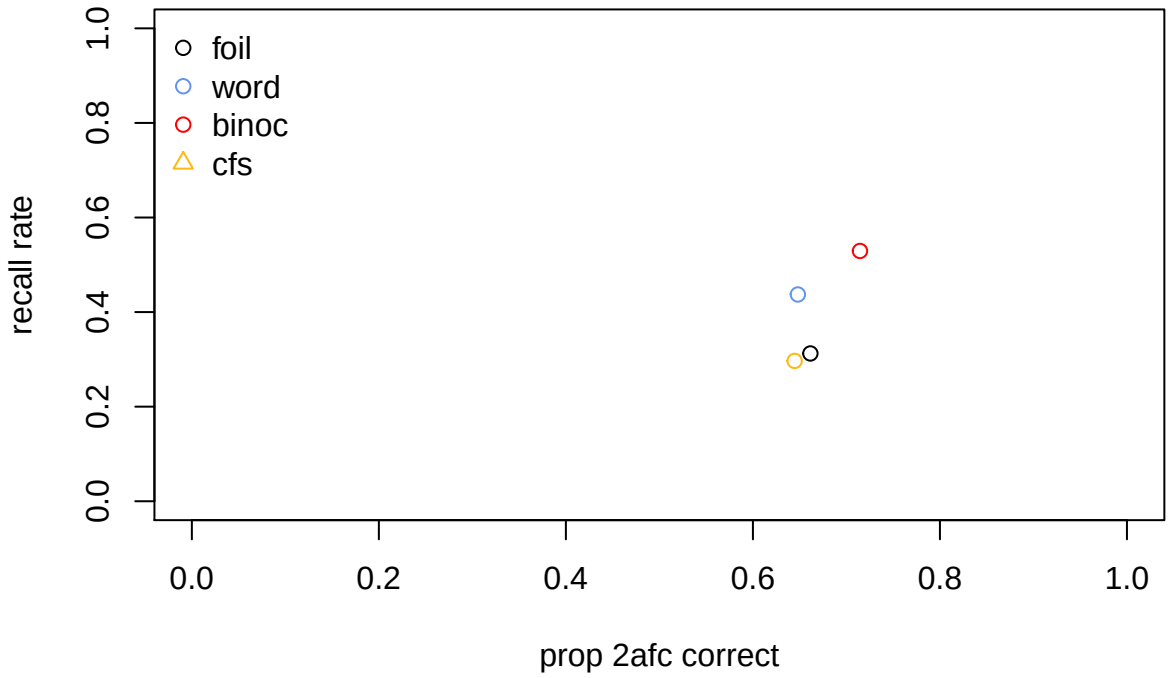
CFS performance is conditioned on having responded 0-2 at the third study opportunity. Binocular and Word is conditioned on having responded 3



comparing PAS responses for words and binocular. Note, many possible points are missing. Those correspond to cases that never occurred, like a rating of 1 to the binocular condition

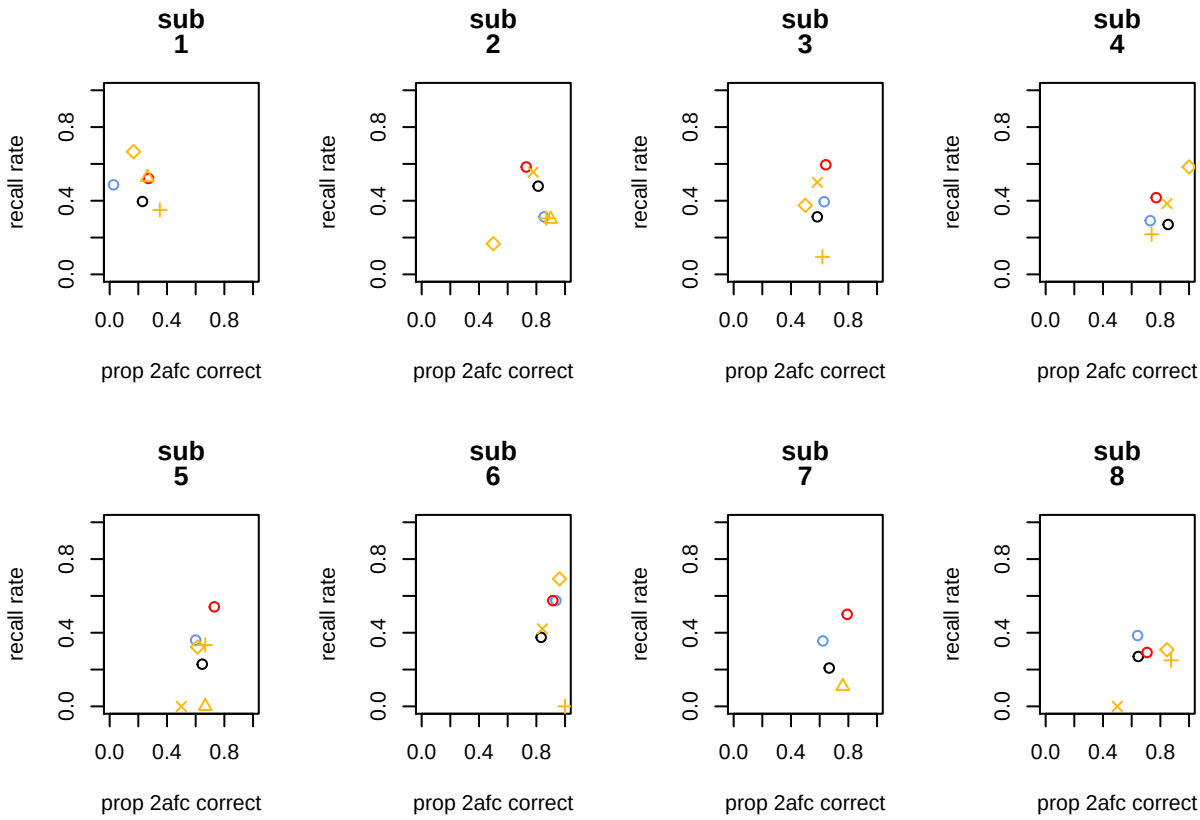


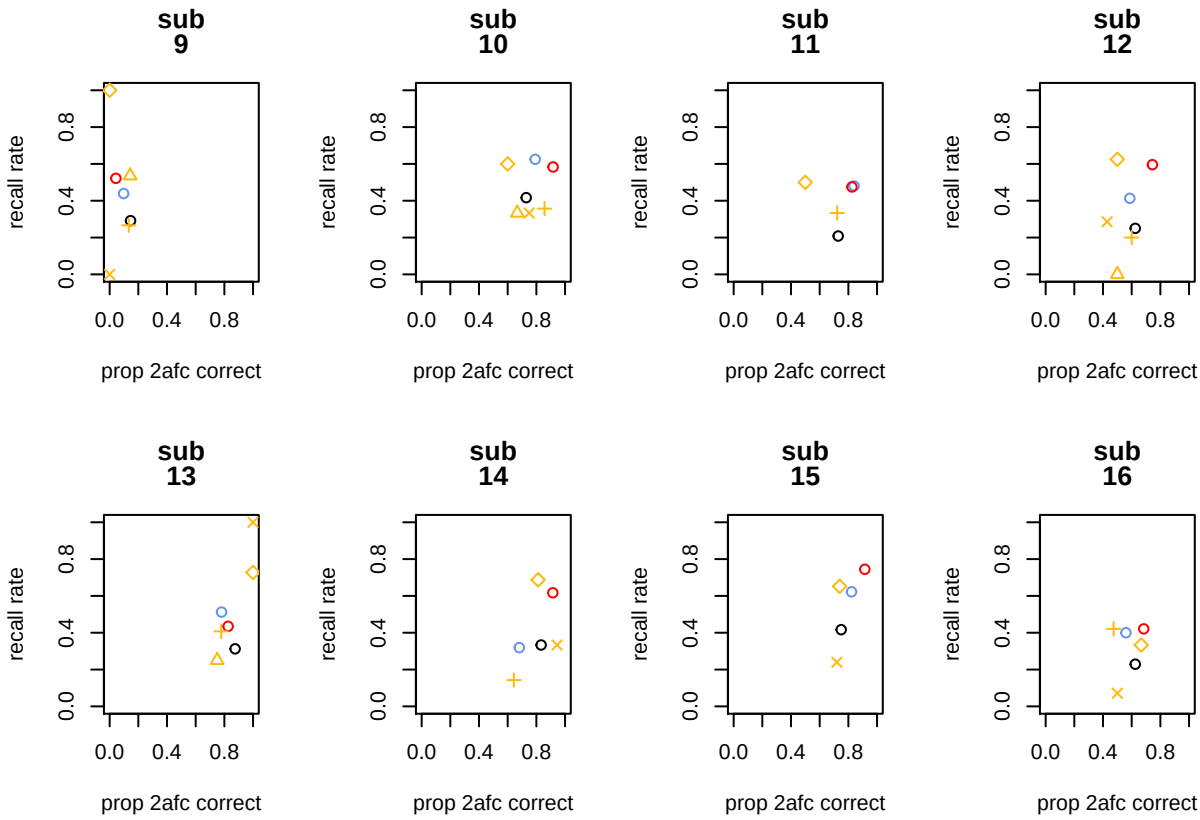
Plot just the average of CFS, given responses below 3



By Subjects

Still looking at test performance as judged by third PAS response


sub 1
sub 2
sub 3
sub 4
sub 5
sub 6
sub 7
sub 8
recall rate
prop 2afc correct
0.0
0.4
0.8




```
# rRates.cond_sem
# afcRates.cond_sem
```

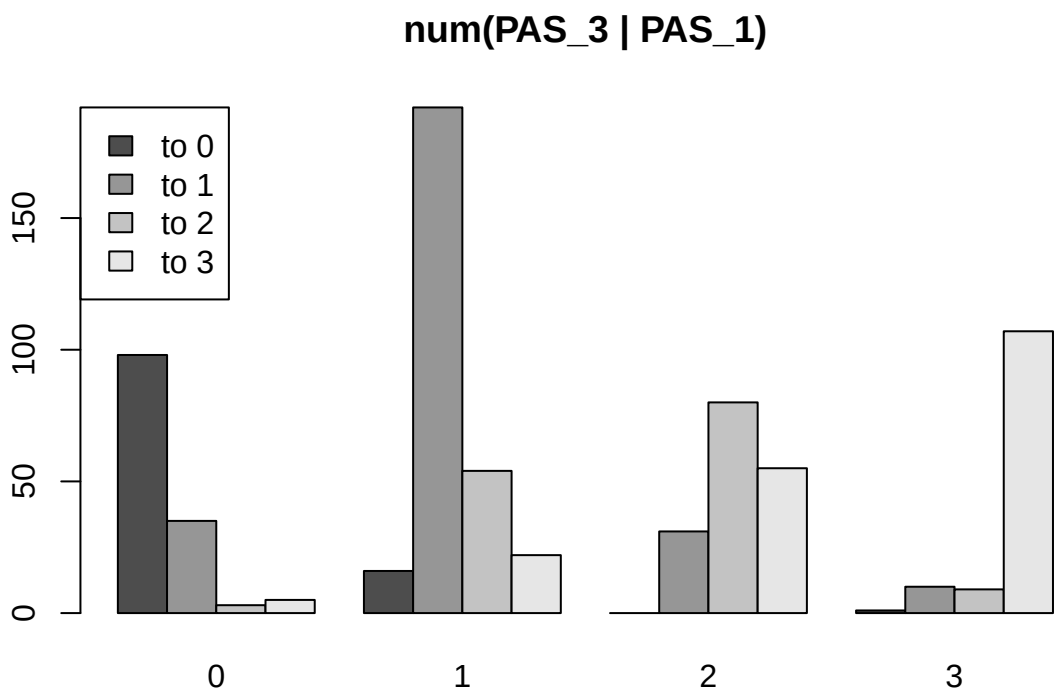
next, look at the state traces by subject

first presentation

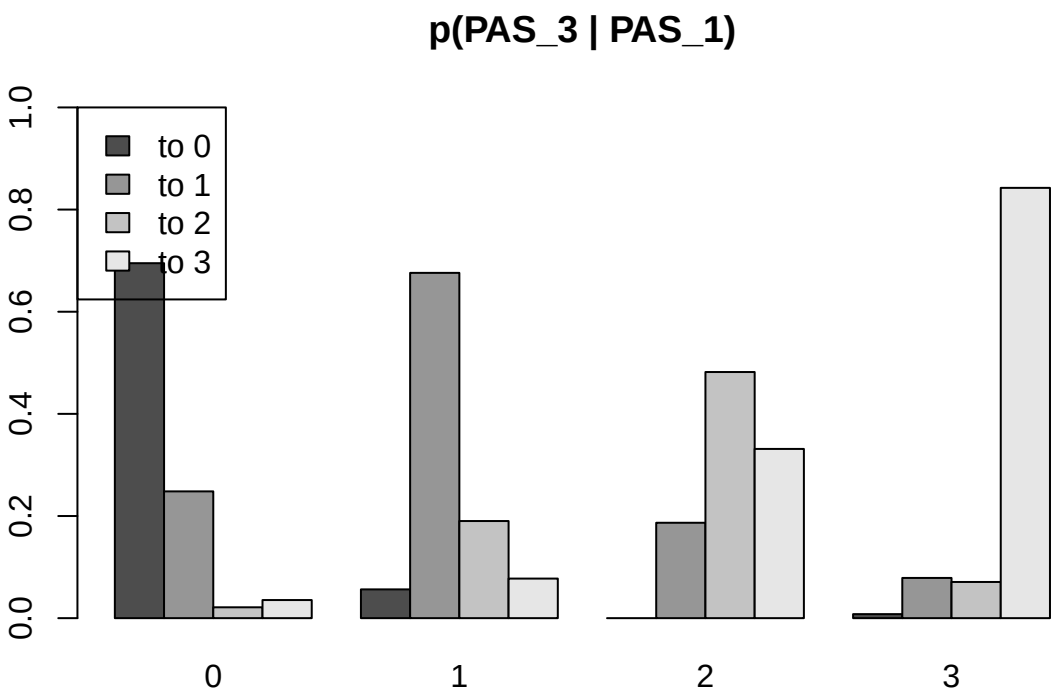
second presentation

third presentation

```
## [1] 5
```



In the following graph, note that the highest of each group of bars shifts one bar to the right for each gropu (0-3). This says that, for a PAS of 3 on the first presentation, the most likely PAS on the second is 3. Similarly, for a PAS of 2 on the first presentation, the most likely is a 2 on the second (followed by a 1). For 1 on the first, mostly likely is a second 1 (followed by 2). For 0, the most likely is split between 0 and 1.


p(PAS_3 | PAS_1)
to 0
to 1
to 2
to 3
0.0
0.2
0.4
0.6
0.8
1.0
0
1
2
3