

# Burn-in Simulation Review - 5 (11.13.25)

2025-11-05

```
library(psych)
load(file = "fifthburn.rda")
# Initial review of outcomes ----

neff <- describeBy(neff_check ~ cat + group_prob + N + loading + n_items,
                     data = resultsfull, mat = T)

## Warning in min(x, na.rm = na.rm): no non-missing arguments to min; returning
## Inf

## Warning in max(x, na.rm = na.rm): no non-missing arguments to max; returning
## -Inf

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## -Inf

neff <- cbind(neff[,2:6],neff[,8:11],neff[,14:15])
colnames(neff) <- c("cat","group_prob","N","loading","n_items","reps","mean","sd",
                     "median","min","max")
rownames(neff) <- NULL
print(neff)

##      cat group_prob   N loading n_items  reps      mean       sd   median
## 1      2          1 100     0.5      6    18  584.9515 421.8663 555.6421
## 2      3          1 100     0.5      6    20  985.4533 758.7678 884.8582
## 3      2          2 100     0.5      6    16  627.1022 658.2280 294.9318
## 4      3          2 100     0.5      6    20  940.4342 559.9816 926.4986
## 5      2          3 100     0.5      6    18  454.1991 566.7957 154.8632
## 6      3          3 100     0.5      6    20 1106.0340 594.0113 1147.9601
## 7      2          1 100     0.8      6    20  818.6736 345.4189 849.9769
## 8      3          1 100     0.8      6    20  698.3349 275.2764 749.5410
## 9      2          2 100     0.8      6    20  858.7391 266.0426 839.9651
## 10     3          2 100     0.8      6    20  821.6027 254.5250 825.9848
## 11     2          3 100     0.8      6    20  793.2807 398.9923 863.9925
## 12     3          3 100     0.8      6    20  899.3855 246.2672 801.4511
## 13     2          1 100     0.5     12     0      NaN       NA       NA
## 14     3          1 100     0.5     12     6  447.5814 436.2041 473.7375
## 15     2          2 100     0.5     12     1 1442.7209       NA 1442.7209
## 16     3          2 100     0.5     12     4  680.1191 849.4710 479.5870
```

```

## 17   2      3 100    0.5    12    0      NaN      NA      NA
## 18   3      3 100    0.5    12    3  511.5154 208.8827 497.6856
## 19   2      1 100    0.8    12    20  448.7235 150.9942 490.4946
## 20   3      1 100    0.8    12    20  364.5279 163.4866 376.2359
## 21   2      2 100    0.8    12    20  441.2150 110.8037 405.6652
## 22   3      2 100    0.8    12    20  391.9787 160.8024 419.8297
## 23   2      3 100    0.8    12    20  456.9433 103.8261 426.9286
## 24   3      3 100    0.8    12    20  384.0014 133.7453 388.3949
##           min      max
## 1     1.0149 1439.4473
## 2     1.0180 2876.3067
## 3     1.0250 1872.2782
## 4     1.0096 2212.8427
## 5     1.0107 1903.1801
## 6     1.0148 2249.1619
## 7     1.0065 1518.3776
## 8     1.0053 1082.0041
## 9     1.0064 1192.7395
## 10    1.0062 1152.4890
## 11    1.0055 1815.1585
## 12    524.1689 1490.4292
## 13      Inf     -Inf
## 14    1.0156 1182.5322
## 15  1442.7209 1442.7209
## 16    1.0151 1760.2874
## 17      Inf     -Inf
## 18    309.8912 726.9693
## 19    1.0035 664.7409
## 20    1.0051 707.3384
## 21    330.8286 680.6642
## 22    1.0058 725.2808
## 23    288.7541 719.9288
## 24    1.0058 594.1108

```

```

psr <- describeBy(psr_check ~ cat + group_prob + N + loading + n_items,
                    data = resultsfull, mat = T)

```

```

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```

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## Inf

```

```

## Warning in max(x, na.rm = na.rm): no non-missing arguments to max; returning
## -Inf

```

```

psr <- cbind(psr[,2:6],psr[,8:11],psr[,14:15])
colnames(psr) <- c("cat","group_prob","N","loading","n_items","reps","mean","sd",
                  "median","min","max")
rownames(psr) <- NULL
print(psr)

```

```

##      cat group_prob   N loading n_items reps      mean         sd median     min
## 1     2           1 100    0.5      6  18 1.356556 1.381574669 1.00500 1.0012
## 2     3           1 100    0.5      6  20 2.000900 2.669241648 1.00350 1.0006
## 3     2           2 100    0.5      6  16 1.304056 1.079892567 1.00530 1.0006
## 4     3           2 100    0.5      6  20 1.388395 1.705701987 1.00255 1.0006
## 5     2           3 100    0.5      6  18 2.908744 2.809246359 1.01890 1.0018
## 6     3           3 100    0.5      6  20 1.513675 1.593312095 1.00215 1.0007
## 7     2           1 100    0.8      6  20 1.943375 2.896647001 1.00205 1.0006
## 8     3           1 100    0.8      6  20 1.978700 3.017760051 1.00360 1.0008
## 9     2           2 100    0.8      6  20 1.477735 2.124868669 1.00250 1.0009
## 10    3           2 100    0.8      6  20 1.487495 2.167481309 1.00265 1.0011
## 11    2           3 100    0.8      6  20 2.009660 3.099818004 1.00245 1.0011
## 12    3           3 100    0.8      6  20 1.002235 0.001022523 1.00205 1.0007
## 13    2           1 100    0.5     12    0     NaN       NA       NA     Inf
## 14    3           1 100    0.5     12    6  2.463067 2.414511290 1.00755 1.0007
## 15    2           2 100    0.5     12    1  1.000700       NA 1.00070 1.0007
## 16    3           2 100    0.5     12    4  2.931500 2.746166660 1.94805 1.0022
## 17    2           3 100    0.5     12    0     NaN       NA       NA     Inf
## 18    3           3 100    0.5     12    3  1.007333 0.004309679 1.00580 1.0040
## 19    2           1 100    0.8     12  20  1.670190 2.976233384 1.00425 1.0017
## 20    3           1 100    0.8     12  20  2.064220 3.258645372 1.00500 1.0010
## 21    2           2 100    0.8     12  20  1.004800 0.003082378 1.00405 1.0021
## 22    3           2 100    0.8     12  20  1.988540 3.026575487 1.00570 1.0020
## 23    2           3 100    0.8     12  20  1.005015 0.003075758 1.00415 1.0008
## 24    3           3 100    0.8     12  20  1.516475 2.280845516 1.00580 1.0019
##          max
## 1     6.8778
## 2    11.5671
## 3     5.3414
## 4     8.6348
## 5     8.1031
## 6     6.8847
## 7    10.4789
## 8    11.6883
## 9    10.5053
## 10   10.6961
## 11   11.3716
## 12   1.0052
## 13   -Inf
## 14   6.7273
## 15   1.0007
## 16   6.8277
## 17   -Inf
## 18   1.0122
## 19  14.3148
## 20  11.7385
## 21   1.0142
## 22  11.2294
## 23   1.0131
## 24  11.2067

```