

# 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

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

```
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									