Who Needs Privacy?

Analyses

Contents

Items

“To what extent do you agree or disagree with the following statements?”

(-3) Strongly Disagree, (-2) Disagree, (-1) Slightly Disagree, (0) Neutral, (1) Slightly Agree (2) Agree, (3) Strongly Agree

(Inverted items are labelled "*".)

Need for privacy

Informational

1. I prefer it when other people do not know much about me.
2. When given the chance, I prefer being incognito.
3. I don’t want personal information about me being publicly available.
4. Not everybody needs to know everything about me.

Societal

Government Surveillance

1. I need government agencies to respect my privacy, even if that hinders a greater societal cause.
2. I need the information that companies (e.g., Amazon, Facebook, or Google) have about me to stay private so that the government cannot access it.
3. I don’t want the government to gather information about me, even if that makes it more difficult for them to spend tax income efficiently.
4. I don’t want government agencies to monitor my personal communication, even if doing so prevents future terrorist attacks.

Anonymity

5. I need to be able to surf online anonymously.
6. I need to be able to use a fake name on social network sites to preserve my privacy.
7. I feel the need to avoid places with video surveillance.
8. I prefer not to carry my ID with me all the time to preserve my privacy

Both

9. I feel the need to protect my privacy from government agencies.

Interpersonal

Online

1. I feel the need to disclose personal information about me on social network sites.
2. My need for privacy is so strong that it prevents me from using Facebook actively.
3. I don’t feel the need to be able to communicate about very personal things with others online.
4. I need to know that my boss or future employers cannot find information about me online that they might disapprove of.

Offline

5. I always need a person to talk about personal things.*
6. I don’t need to know a lot of things about people I interact with, as that might cause problems.
7. I don’t feel the need to tell my friends all my secrets.

8. I sometimes feel the need to share my personal point of view with someone I don't know that well.*

Both

9. I feel the need to protect my privacy from other people.

Sociability

1. I shy away from crowds of people.*
2. I like to have a lot of people around me.
3. I usually prefer to do things alone.*
4. I really feel the need for other people if I am by myself for long.
5. I prefer jobs that let me work alone without being bothered by other people.*
6. I'd rather vacation at a popular beach than an isolated cabin in the woods.
7. Social gatherings are usually boring to me.*
8. I enjoy parties with lots of people.

Integrity

1. I am often tempted to take things that do not belong to me.*
2. I don't think there's anything wrong with cheating a little on one's income tax forms.*
3. When traveling, I would always declare everything at customs.
4. If I found a wallet, I would not be tempted to keep any money.
5. If I could get away with it, I would leave a restaurant or bar without paying the bill.*
6. I would buy stolen merchandise if the price was right.*
7. I would mislead people when it comes to my academic achievements.*
8. I think that there are circumstances when people are justified in cheating.*

Self-designed

9. I have cheated on an exam in school.*
10. I have watched movies or listened to music online for free, even though I knew doing so violated copyright law.*
11. Certain things that I have done would be considered illegal in some places.*

Anxiety

1. I am not a worrier.*
2. I am easily frightened.
3. I rarely feel fearful or anxious.*
4. I often feel tense and jittery.
5. I'm seldom apprehensive about the future.
6. I often worry about things that might go wrong.
7. I have fewer fears than most people.*
8. Frightening thoughts sometimes come into my head.

Risk avoidance

1. Over the years I've done some pretty stupid things.*
2. I think things through before coming to a decision.
3. Occasionally I act first and think later.*
4. I always consider the consequences before I take action.

5. I often do things on the spur of the moment.*
6. I rarely make hasty decisions.
7. I plan ahead carefully when I go on a trip.
8. I think twice before I answer a question.

Traditionalism

1. I'm pretty set in my ways.
2. I think it's interesting to learn and develop new hobbies.*
3. Once I find the right way to do something, I stick to it.
4. I often try new and foreign foods.*
5. I prefer to spend my time in familiar surroundings.
6. Sometimes I make changes around the house just to try something different.*
7. On a vacation, I prefer going back to a tried and true spot.
8. I follow the same route when I go someplace.

Sample

Missing values

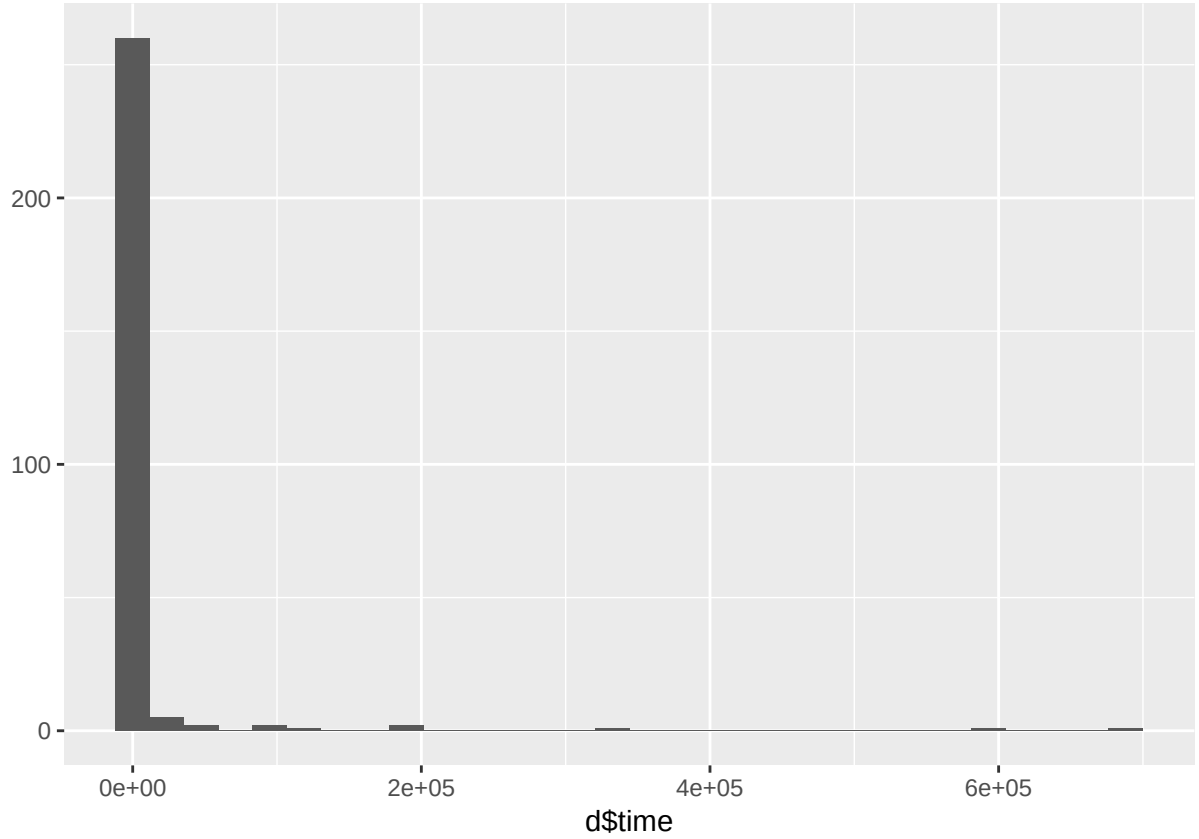
Inspect how much data is missing.

```
##
##                  0 0.0142857142857143 0.0285714285714286 0.0428571428571429
##                266                   4                   1                   3
##  0.442857142857143  0.628571428571429  0.742857142857143  0.857142857142857
##                  2                   1                   1                   2
##  0.971428571428571
##                 15
```

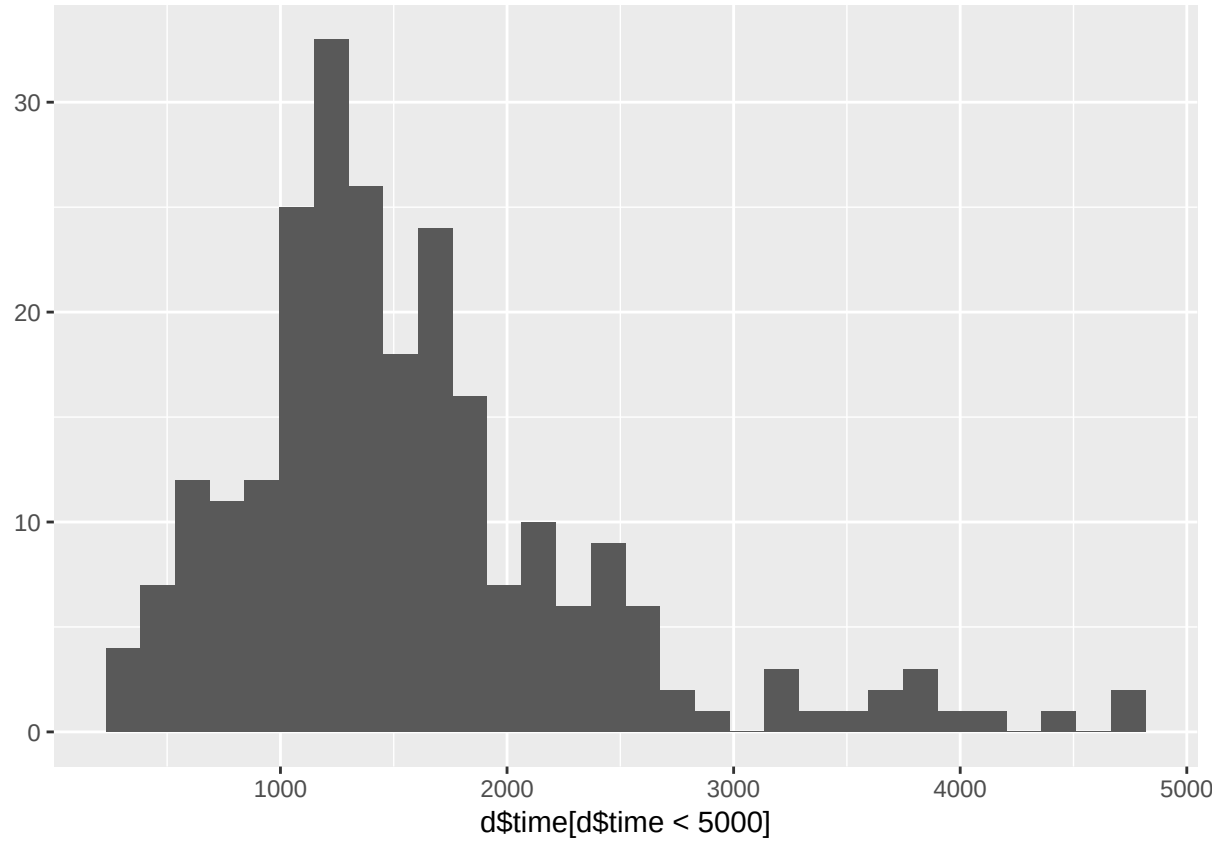
Shows that most people answered all questions. There were 15 empty data sets, and some with more than 50% missing data. These were deleted. In the final sample, there was 0.004 missing data.

Response time

Inspect how long it took respondents to answer the questionnaire.



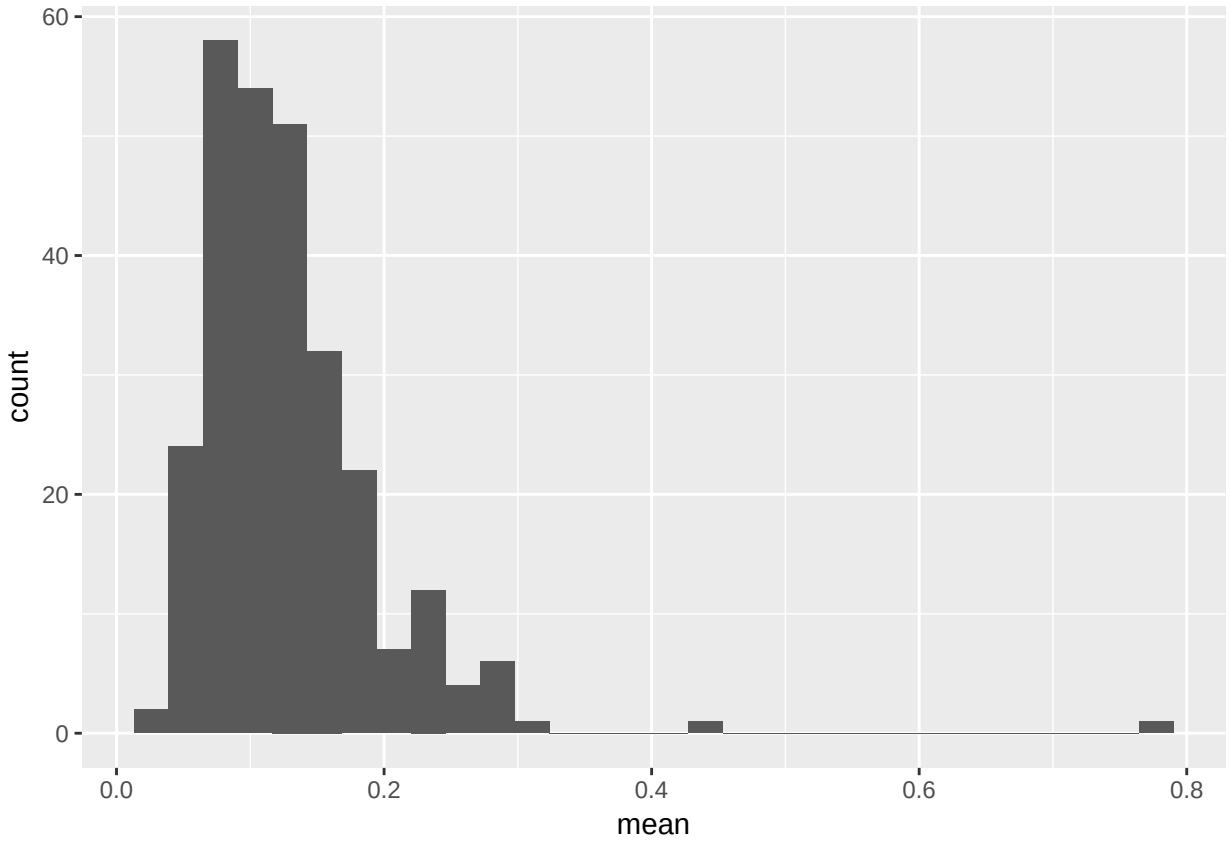
Shows that some participants took very long to answer. Inspect regular times.



Distribution looks okay (no early peak). Also no answers faster than 5 mins. No respondents will be excluded.

Response patterns

We inspect response patterns using the Guttman criterion. Cases with most extreme values will be excluded.



Only few participants seem to have particularly atypical data. Will filter respondents with m > .30. Inspect those cases to see whether they indeed show irregular response patterns.

```
##    id male age inc time pri_nee_gen_1 pri_nee_gen_2 pri_nee_gen_3 pri_nee_gen_4
## 1 128    1  19   2  458             1             1             7             7
## 2 240    1  19   1  351             7             7             7             7
##   pri_nee_soc_1 pri_nee_soc_2 pri_nee_soc_3 pri_nee_soc_4 pri_nee_soc_5 pri_nee_soc_6
## 1             1             1             1             1             1             1
## 2             7             7             7             7             7             7
##   pri_nee_soc_7 pri_nee_soc_8 pri_nee_soc_9 pri_nee_int_1 pri_nee_int_2 pri_nee_int_3
## 1             1             1             1             7             1             1
## 2             7             7             7             7             1             1
##   pri_nee_int_4 pri_nee_int_5 pri_nee_int_6 pri_nee_int_7 pri_nee_int_8 pri_nee_int_9
## 1             1             7             1             1             7             1
## 2             1             7             1             1             7             1
##   soc_1 soc_2 soc_3 soc_4 soc_5 soc_6 soc_7 soc_8 itg_1 itg_2 itg_3 itg_4 itg_5 itg_6
## 1     1     7     7     1     7     7     7     7     7     7     1     1     7     7
## 2     4     4     4     4     4     4     4     4     6     5     2     3     7     6
##   itg_7 itg_8 itg_9 itg_10 itg_11 anx_1 anx_2 anx_3 anx_4 anx_5 anx_6 anx_7 anx_8 ria_1
## 1     7     7     7      7      7     7     1     7     1     7     1     7     1     7
## 2     6     5     7      6      7     6     2     6     2     6     2     6     2     6
##   ria_2 ria_3 ria_4 ria_5 ria_6 ria_7 ria_8 tra_1 tra_2 tra_3 tra_4 tra_5 tra_6 tra_7
## 1     1     7     1     7     1     1     1     1     7     1     7     1     7     1
## 2     2     6     2     6     2     2     2     2     6     1     7     3     6     2
##   tra_8 miss_per guttman
## 1     1        0   0.788
## 2     2        0   0.442
```

The cases indeed show extreme response patterns. Also, several inverted variables were not recognized (e.g., pri_nee_int_1, pri_nee_int_5, pri_nee_int_8, itg_1, itg_2, itg_5, itg_6, itg_7, itg_8, itg_9, itg_10, itg_11, soc_1, soc_3, soc_5, soc_7, anx_1, anx_3, anx_5, anx_7, ria_1, ria_3, ria_5, tra_2, tra_4, tra_6). These respondents will be deleted.

Power analyses

Estimate achieved power for small effects.

```
##
##      approximate correlation power calculation (arctangh transformation)
##
##               n = 273
##               r = 0.1
##       sig.level = 0.05
##           power = 0.379
##     alternative = two.sided
```

Estimate achieved power for small to moderate effects.

```
##
##      approximate correlation power calculation (arctangh transformation)
##
##               n = 273
##               r = 0.2
##       sig.level = 0.05
##           power = 0.916
##     alternative = two.sided
```

Estimate the size of effects that we were able to find with a probability of 95%.

```
##
##      approximate correlation power calculation (arctangh transformation)
##
##               n = 273
##               r = 0.216
##       sig.level = 0.05
##           power = 0.95
##     alternative = two.sided
```

Estimate the sample size needed to find small effects with a probability of 95%.

```
##
##      approximate correlation power calculation (arctangh transformation)
##
##               n = 1293
##               r = 0.1
##       sig.level = 0.05
##           power = 0.95
##     alternative = two.sided
```

Multivariate normal distribution

We test for the assumption of multivariate normal distribution by running Mardia's test.

```
##              Test Statistic   p value Result
## 1 Mardia Skewness   61296.1 6.45e-239     NO
## 2 Mardia Kurtosis      24.7  0.00e+00     NO
```

Shows that the assumptions of multivariate normal distribution was violated. Will hence use robust estimator in the following analyses.

Measures

In what follows, we present the measures we used. Specifically, we present each item's distribution and a confirmatory factor analysis (CFA) of the original scale. If the scale did not show sufficient fit, we first ran exploratory factor analyses (EFA) to better determine the underlying factor structure. In an iterative process, we then adapted the scales (e.g., by introducing subdimensions, trying bifactor solutions, or deleting items).

Need for Privacy

Items

CFA 1

We first analyze all dimensions separately to see how they do individually and as specified theoretically a priori. The general aim is, of course, to find the general structure of the items when analyzed together.

Informational Privacy

```
## lavaan 0.6-3 ended normally after 22 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                          8
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      23.261      17.543
##   Degrees of freedom                                 2           2
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.326
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              184.045     151.709
##   Degrees of freedom                                 6           6
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.881       0.893
##   Tucker-Lewis Index (TLI)                       0.642       0.680
##
##   Robust Comparative Fit Index (CFI)                         0.883
##   Robust Tucker-Lewis Index (TLI)                            0.650
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -1682.729   -1682.729
##   Loglikelihood unrestricted model (H1)      -1671.099   -1671.099
##
##   Number of free parameters                          8           8
##   Akaike (AIC)                                3381.459    3381.459
##   Bayesian (BIC)                              3410.335    3410.335
##   Sample-size adjusted Bayesian (BIC)         3384.969    3384.969
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.197       0.169
##   90 Percent Confidence Interval          0.130  0.273       0.110  0.235
##   P-value RMSEA <= 0.05                          0.000       0.001
##
##   Robust RMSEA                                               0.194
##   90 Percent Confidence Interval                             0.118  0.282
##
```

```
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.062       0.062
##
## Parameter Estimates:
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen =~
##     pri_nee_gen_1     1.000                               0.943    0.707
##     pri_nee_gen_2     0.914    0.140    6.510    0.000    0.862    0.624
##     pri_nee_gen_3     0.631    0.095    6.648    0.000    0.595    0.527
##     pri_nee_gen_4     0.558    0.096    5.807    0.000    0.526    0.500
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_gen_1     0.892    0.164    5.431    0.000    0.892    0.501
##    .pri_nee_gen_2     1.165    0.165    7.066    0.000    1.165    0.610
##    .pri_nee_gen_3     0.919    0.094    9.745    0.000    0.919    0.722
##    .pri_nee_gen_4     0.829    0.099    8.341    0.000    0.829    0.750
##     pri_nee_gen       0.889    0.177    5.019    0.000    1.000    1.000
```

Does not show adequate fit.

Government

```
## lavaan 0.6-3 ended normally after 23 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         12
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      16.155      12.921
##   Degrees of freedom                                 9           9
##   P-value (Chi-square)                           0.064       0.166
##   Scaling correction factor                                  1.250
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              725.827     576.462
##   Degrees of freedom                                15          15
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.990       0.993
##   Tucker-Lewis Index (TLI)                       0.983       0.988
##
##   Robust Comparative Fit Index (CFI)                         0.993
##   Robust Tucker-Lewis Index (TLI)                            0.988
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2635.744   -2635.744
##   Loglikelihood unrestricted model (H1)      -2627.666   -2627.666
##
##   Number of free parameters                         12          12
##   Akaike (AIC)                                5295.488    5295.488
##   Bayesian (BIC)                              5338.802    5338.802
##   Sample-size adjusted Bayesian (BIC)         5300.753    5300.753
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.054       0.040
##   90 Percent Confidence Interval          0.000  0.096       0.000  0.080
##   P-value RMSEA <= 0.05                          0.388       0.609
##
##   Robust RMSEA                                               0.045
##   90 Percent Confidence Interval                             0.000  0.095
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.024       0.024
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.115    0.764
##     pri_nee_soc_2     0.950    0.094   10.055    0.000    1.059    0.707
##     pri_nee_soc_3     0.977    0.085   11.490    0.000    1.089    0.754
##     pri_nee_soc_4     1.119    0.081   13.730    0.000    1.247    0.814
##     pri_nee_soc_5     0.882    0.088    9.966    0.000    0.983    0.623
##     pri_nee_soc_9     0.977    0.086   11.345    0.000    1.089    0.724
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     0.887    0.097    9.175    0.000    0.887    0.416
##    .pri_nee_soc_2     1.119    0.170    6.589    0.000    1.119    0.499
##    .pri_nee_soc_3     0.902    0.129    6.994    0.000    0.902    0.432
##    .pri_nee_soc_4     0.791    0.110    7.170    0.000    0.791    0.337
##    .pri_nee_soc_5     1.525    0.151   10.068    0.000    1.525    0.612
##    .pri_nee_soc_9     1.078    0.110    9.780    0.000    1.078    0.476
##     pri_nee_gov       1.243    0.176    7.068    0.000    1.000    1.000
```

Shows good fit, can be used individually for future research.

Anonymity

```
## lavaan 0.6-3 ended normally after 33 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                          8
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      11.179       9.225
##   Degrees of freedom                                 2           2
##   P-value (Chi-square)                           0.004       0.010
##   Scaling correction factor                                  1.212
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              173.863     156.865
##   Degrees of freedom                                 6           6
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.945       0.952
##   Tucker-Lewis Index (TLI)                       0.836       0.856
##
##   Robust Comparative Fit Index (CFI)                         0.948
##   Robust Tucker-Lewis Index (TLI)                            0.843
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -1909.282   -1909.282
##   Loglikelihood unrestricted model (H1)      -1903.692   -1903.692
##
##   Number of free parameters                          8           8
##   Akaike (AIC)                                3834.564    3834.564
##   Bayesian (BIC)                              3863.440    3863.440
##   Sample-size adjusted Bayesian (BIC)         3838.074    3838.074
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.130       0.115
##   90 Percent Confidence Interval          0.063  0.208       0.053  0.187
##   P-value RMSEA <= 0.05                          0.027       0.043
##
##   Robust RMSEA                                               0.127
##   90 Percent Confidence Interval                             0.053  0.214
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.045       0.045
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_ano =~
##     pri_nee_soc_5     1.000                               0.677    0.429
##     pri_nee_soc_6     1.272    0.219    5.810    0.000    0.861    0.565
##     pri_nee_soc_7     1.630    0.284    5.736    0.000    1.103    0.779
##     pri_nee_soc_8     1.234    0.231    5.340    0.000    0.835    0.566
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_5     2.032    0.159   12.744    0.000    2.032    0.816
##    .pri_nee_soc_6     1.582    0.183    8.636    0.000    1.582    0.681
##    .pri_nee_soc_7     0.791    0.206    3.835    0.000    0.791    0.394
##    .pri_nee_soc_8     1.482    0.207    7.143    0.000    1.482    0.680
##     pri_nee_ano       0.458    0.133    3.446    0.001    1.000    1.000
```

Shows moderate fit.

Interpersonal online

```
## lavaan 0.6-3 ended normally after 83 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         10
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      41.600      39.815
##   Degrees of freedom                                 5           5
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.045
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              109.731     100.419
##   Degrees of freedom                                10          10
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.633       0.615
##   Tucker-Lewis Index (TLI)                       0.266       0.230
##
##   Robust Comparative Fit Index (CFI)                         0.632
##   Robust Tucker-Lewis Index (TLI)                            0.264
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2374.145   -2374.145
##   Loglikelihood unrestricted model (H1)      -2353.345   -2353.345
##
##   Number of free parameters                         10          10
##   Akaike (AIC)                                4768.290    4768.290
##   Bayesian (BIC)                              4804.385    4804.385
##   Sample-size adjusted Bayesian (BIC)         4772.677    4772.677
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.164       0.160
##   90 Percent Confidence Interval          0.120  0.211       0.117  0.206
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.163
##   90 Percent Confidence Interval                             0.118  0.212
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.090       0.090
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                     Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_int_onl =~
##     pri_nee_int_1       1.000                               0.102    0.070
##     pri_nee_int_2      -5.086    5.309   -0.958    0.338   -0.520   -0.340
##     pri_nee_int_3      -4.220    4.859   -0.868    0.385   -0.431   -0.297
##     pri_nee_int_4      -4.752    5.230   -0.909    0.363   -0.486   -0.365
##     pri_nee_int_9     -10.584   11.941   -0.886    0.375   -1.082   -0.830
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_int_1     2.119    0.130   16.252    0.000    2.119    0.995
##    .pri_nee_int_2     2.067    0.156   13.262    0.000    2.067    0.884
##    .pri_nee_int_3     1.917    0.152   12.646    0.000    1.917    0.912
##    .pri_nee_int_4     1.540    0.146   10.540    0.000    1.540    0.867
##    .pri_nee_int_9     0.529    0.344    1.539    0.124    0.529    0.311
##     pri_nee_int_nl    0.010    0.023    0.458    0.647    1.000    1.000
```

Shows poor fit.

Interpersonal offline

```
## lavaan 0.6-3 ended normally after 59 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         10
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      14.729      12.018
##   Degrees of freedom                                 5           5
##   P-value (Chi-square)                           0.012       0.035
##   Scaling correction factor                                  1.226
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic               63.063      52.699
##   Degrees of freedom                                10          10
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.817       0.836
##   Tucker-Lewis Index (TLI)                       0.633       0.671
##
##   Robust Comparative Fit Index (CFI)                         0.832
##   Robust Tucker-Lewis Index (TLI)                            0.663
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2324.018   -2324.018
##   Loglikelihood unrestricted model (H1)      -2316.653   -2316.653
##
##   Number of free parameters                         10          10
##   Akaike (AIC)                                4668.035    4668.035
##   Bayesian (BIC)                              4704.130    4704.130
##   Sample-size adjusted Bayesian (BIC)         4672.422    4672.422
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.084       0.072
##   90 Percent Confidence Interval          0.036  0.136       0.024  0.119
##   P-value RMSEA <= 0.05                          0.106       0.188
##
##   Robust RMSEA                                               0.079
##   90 Percent Confidence Interval                             0.020  0.138
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.055       0.055
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                     Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_int_off =~
##     pri_nee_int_5       1.000                               0.240    0.166
##     pri_nee_int_6       1.872    1.109    1.688    0.091    0.449    0.342
##     pri_nee_int_7       3.433    1.994    1.721    0.085    0.823    0.643
##     pri_nee_int_8      -0.030    0.533   -0.057    0.955   -0.007   -0.005
##     pri_nee_int_9       2.626    1.399    1.877    0.060    0.630    0.483
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_int_5     2.024    0.150   13.469    0.000    2.024    0.972
##    .pri_nee_int_6     1.520    0.146   10.405    0.000    1.520    0.883
##    .pri_nee_int_7     0.961    0.247    3.884    0.000    0.961    0.586
##    .pri_nee_int_8     2.040    0.131   15.615    0.000    2.040    1.000
##    .pri_nee_int_9     1.303    0.192    6.785    0.000    1.303    0.767
##     pri_nee_int_ff    0.058    0.061    0.946    0.344    1.000    1.000
```

Does not show adequate fit.

Combined

```
## lavaan 0.6-3 did NOT end normally after 1219 iterations
## ** WARNING ** Estimates below are most likely unreliable
##
##   Optimization method                           NLMINB
##   Number of free parameters                         56
##
##   Number of observations                           273
##
##   Estimator                                         ML
##   Model Fit Test Statistic                          NA
##   Degrees of freedom                                NA
##   P-value                                           NA
##
## Parameter Estimates:
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                     Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen =~
##     pri_nee_gen_1       1.000                               1.077    0.807
##     pri_nee_gen_2       0.740       NA                      0.797    0.577
##     pri_nee_gen_3       0.494       NA                      0.532    0.472
##     pri_nee_gen_4       0.440       NA                      0.474    0.450
##   pri_nee_gov =~
##     pri_nee_soc_1       1.000                               1.093    0.749
##     pri_nee_soc_2       0.986       NA                      1.078    0.720
##     pri_nee_soc_3       1.010       NA                      1.105    0.764
##     pri_nee_soc_4       1.116       NA                      1.220    0.797
##     pri_nee_soc_5       0.897       NA                      0.981    0.621
##     pri_nee_soc_9       1.016       NA                      1.110    0.738
##   pri_nee_ano =~
##     pri_nee_soc_5       1.000                               0.000    0.000
##     pri_nee_soc_6    5456.577       NA                      0.957    0.628
##     pri_nee_soc_7    5698.535       NA                      0.999    0.705
##     pri_nee_soc_8    4848.096       NA                      0.850    0.576
##   pri_nee_int_onl =~
##     pri_nee_int_1       1.000                               0.286    0.196
##     pri_nee_int_2      -2.751       NA                     -0.787   -0.514
##     pri_nee_int_3      -1.112       NA                     -0.318   -0.219
##     pri_nee_int_4      -1.583       NA                     -0.453   -0.340
##     pri_nee_int_9      -0.907       NA                     -0.260   -0.199
##   pri_nee_int_off =~
##     pri_nee_int_5       1.000                               0.202    0.140
##     pri_nee_int_6       2.606       NA                      0.527    0.402
##     pri_nee_int_7       3.143       NA                      0.636    0.497
##     pri_nee_int_8      -0.068       NA                     -0.014   -0.010
##     pri_nee_int_9       2.384       NA                      0.482    0.370
##
## Covariances:
```

```
##                     Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen ~~
##     pri_nee_gov         0.387       NA                     0.328    0.328
##     pri_nee_ano         0.000       NA                     0.259    0.259
##     pri_nee_int_nl     -0.209       NA                    -0.679   -0.679
##     pri_nee_int_ff      0.189       NA                     0.866    0.866
##   pri_nee_gov ~~
##     pri_nee_ano         0.000       NA                     0.711    0.711
##     pri_nee_int_nl     -0.242       NA                    -0.773   -0.773
##     pri_nee_int_ff      0.090       NA                     0.408    0.408
##   pri_nee_ano ~~
##     pri_nee_int_nl     -0.000       NA                    -0.829   -0.829
##     pri_nee_int_ff      0.000       NA                     0.297    0.297
##   pri_nee_int_onl ~~
##     pri_nee_int_ff     -0.061       NA                    -1.061   -1.061
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_gen_1     0.621       NA                     0.621    0.349
##    .pri_nee_gen_2     1.272       NA                     1.272    0.667
##    .pri_nee_gen_3     0.989       NA                     0.989    0.777
##    .pri_nee_gen_4     0.882       NA                     0.882    0.797
##    .pri_nee_soc_1     0.935       NA                     0.935    0.439
##    .pri_nee_soc_2     1.077       NA                     1.077    0.481
##    .pri_nee_soc_3     0.869       NA                     0.869    0.416
##    .pri_nee_soc_4     0.858       NA                     0.858    0.366
##    .pri_nee_soc_5     1.529       NA                     1.529    0.614
##    .pri_nee_soc_9     1.031       NA                     1.031    0.455
##    .pri_nee_soc_6     1.405       NA                     1.405    0.605
##    .pri_nee_soc_7     1.011       NA                     1.011    0.503
##    .pri_nee_soc_8     1.457       NA                     1.457    0.668
##    .pri_nee_int_1     2.047       NA                     2.047    0.962
##    .pri_nee_int_2     1.719       NA                     1.719    0.735
##    .pri_nee_int_3     2.002       NA                     2.002    0.952
##    .pri_nee_int_4     1.571       NA                     1.571    0.885
##    .pri_nee_int_9     1.134       NA                     1.134    0.667
##    .pri_nee_int_5     2.040       NA                     2.040    0.980
##    .pri_nee_int_6     1.443       NA                     1.443    0.839
##    .pri_nee_int_7     1.234       NA                     1.234    0.753
##    .pri_nee_int_8     2.040       NA                     2.040    1.000
##     pri_nee_gen       1.160       NA                     1.000    1.000
##     pri_nee_gov       1.195       NA                     1.000    1.000
##     pri_nee_ano       0.000       NA                     1.000    1.000
##     pri_nee_int_nl    0.082       NA                     1.000    1.000
##     pri_nee_int_ff    0.041       NA                     1.000    1.000
```

The combined scale does not converge. Will need to be adapted thoroughly.

EFA 1

In what follows, we now try to find what items need to be selected in order to attain a measure of need for privacy that includes as many items as possible.

Kaiser-Meyer-Oltkin criterion

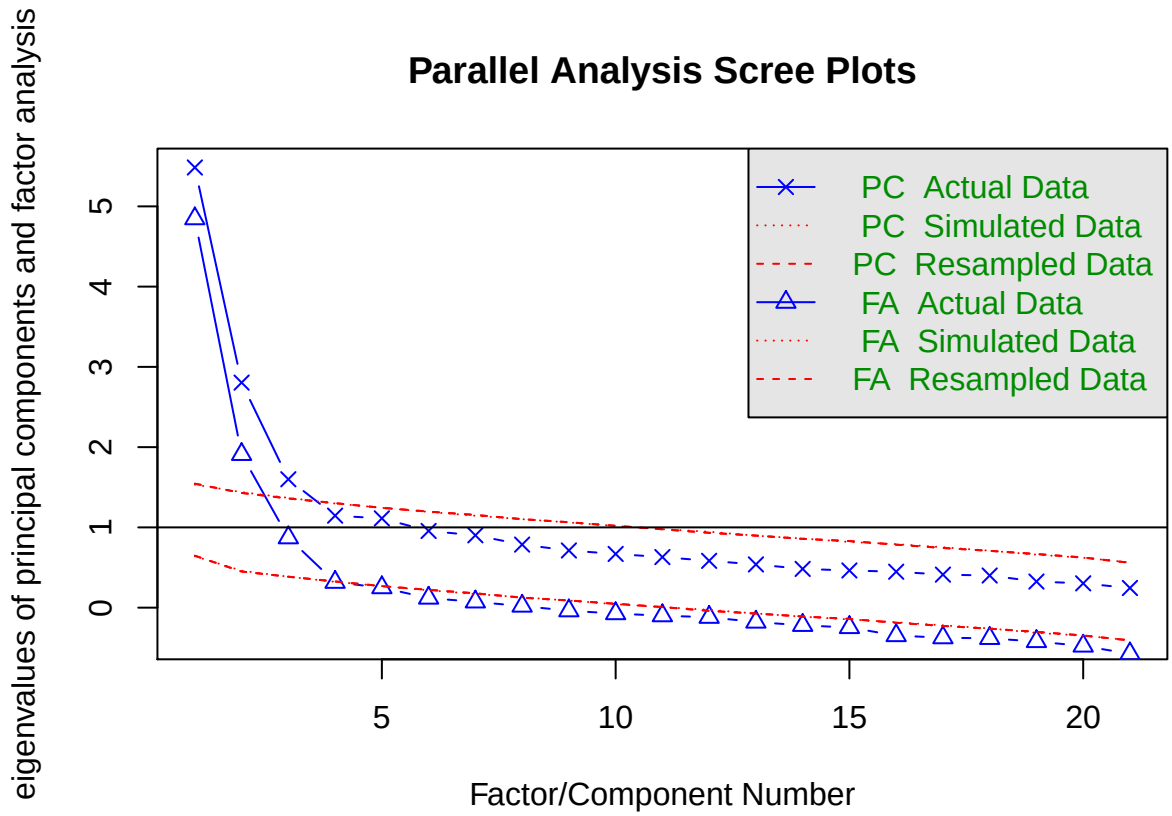
The Kaiser-Meyer-Oltkin criterion measures the extent to which items are suitable for being combined as a single factor.

```
## Kaiser-Meyer-Olkin factor adequacy
## Call: KMO(r = d_tmp)
## Overall MSA =  0.84
## MSA for each item =
## pri_nee_gen_1 pri_nee_gen_2 pri_nee_gen_3 pri_nee_gen_4 pri_nee_soc_1 pri_nee_soc_2
##          0.79          0.80          0.71          0.68          0.87          0.90
## pri_nee_soc_3 pri_nee_soc_4 pri_nee_soc_5 pri_nee_soc_6 pri_nee_soc_7 pri_nee_soc_8
##          0.89          0.86          0.90          0.92          0.84          0.84
## pri_nee_soc_9 pri_nee_int_1 pri_nee_int_2 pri_nee_int_3 pri_nee_int_4 pri_nee_int_5
##          0.93          0.81          0.89          0.69          0.78          0.54
## pri_nee_int_6 pri_nee_int_7 pri_nee_int_8 pri_nee_int_9
##          0.82          0.81          0.71          0.78
```

On the basis of the KMO, the following items should (and will) be exluded: pri_nee_gen_4, pri_nee_int_3, pri_nee_int_5.

Parallel analysis

Next, we run a parallel analysis to determine the underlying structure.




```
## Parallel analysis suggests that the number of factors =  3  and the number of components =  3
```

Factor analysis 1

```
##
## Loadings:
##               MR1    MR2    MR3
## pri_nee_gen_1          0.760  0.138
## pri_nee_gen_2          0.460
## pri_nee_gen_3  0.153  0.483 -0.330
## pri_nee_gen_4          0.433 -0.350
## pri_nee_soc_1  0.784
## pri_nee_soc_2  0.662  0.102
## pri_nee_soc_3  0.729  0.109
## pri_nee_soc_4  0.812
## pri_nee_soc_5  0.634
## pri_nee_soc_6  0.260  0.119  0.424
## pri_nee_soc_7  0.272         0.614
## pri_nee_soc_8  0.102  0.175  0.510
## pri_nee_soc_9  0.691         0.115
## pri_nee_int_1          0.125 -0.565
## pri_nee_int_2  0.104  0.354  0.376
## pri_nee_int_3          0.410 -0.290
## pri_nee_int_4  0.185  0.288
## pri_nee_int_6 -0.102  0.391  0.393
## pri_nee_int_7          0.545 -0.118
## pri_nee_int_8 -0.102         -0.283
## pri_nee_int_9  0.257  0.434
##
##                  MR1   MR2   MR3
## SS loadings    3.448 2.324 1.884
## Proportion Var 0.164 0.111 0.090
## Cumulative Var 0.164 0.275 0.365
```

Three latent factors emerge:

- factor 1 measures need for privacy from the government (vertical)
- factor 2 measures need for privacy from other people (horizontal)
- factor 3 can be described as desire for anonymity (combined)

The following items will be exluded:

- Communalities reveal that item itg_4 and itg_8 don't load sufficiently strong on latent factors.
- Item itg_1 only loads negative on factor 3 – little positive contribution.

The following items show double-loadings:

- BOT_3, BOT_4, itg_2, itg_6. Will be difficult to decide whether to maintain or delete.

Run novel factor analysis.

Factor analysis 2

```
##
## Loadings:
##                MR1    MR2    MR3
## pri_nee_gen_1          0.774  0.147
## pri_nee_gen_2          0.465
## pri_nee_gen_3  0.154  0.469 -0.367
## pri_nee_gen_4          0.442 -0.427
## pri_nee_soc_1  0.782
## pri_nee_soc_2  0.666
## pri_nee_soc_3  0.733
## pri_nee_soc_4  0.808
## pri_nee_soc_5  0.642
## pri_nee_soc_6  0.294  0.111  0.391
## pri_nee_soc_7  0.312         0.596
## pri_nee_soc_8  0.140  0.176  0.481
## pri_nee_soc_9  0.712
## pri_nee_int_2  0.136  0.362  0.350
## pri_nee_int_3          0.402 -0.240
## pri_nee_int_6          0.393  0.388
## pri_nee_int_7          0.533 -0.121
## pri_nee_int_9  0.284  0.415
##
##                  MR1   MR2   MR3
## SS loadings    3.511 2.208 1.449
## Proportion Var 0.195 0.123 0.080
## Cumulative Var 0.195 0.318 0.398
```

Looks better. Will now be tested in CFA.

CFA 2

```
## lavaan 0.6-3 ended normally after 38 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         41
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     372.177     326.636
##   Degrees of freedom                               130         130
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.139
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1739.283    1543.938
##   Degrees of freedom                               153         153
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.847       0.859
##   Tucker-Lewis Index (TLI)                       0.820       0.834
##
##   Robust Comparative Fit Index (CFI)                         0.857
##   Robust Tucker-Lewis Index (TLI)                            0.832
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -7917.003   -7917.003
##   Loglikelihood unrestricted model (H1)      -7730.915   -7730.915
##
##   Number of free parameters                         41          41
##   Akaike (AIC)                               15916.006   15916.006
##   Bayesian (BIC)                             16063.995   16063.995
##   Sample-size adjusted Bayesian (BIC)        15933.994   15933.994
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.083       0.074
##   90 Percent Confidence Interval          0.073  0.093       0.065  0.084
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.079
##   90 Percent Confidence Interval                             0.069  0.090
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.082       0.082
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.095    0.750
##     pri_nee_soc_2     0.986    0.091   10.776    0.000    1.079    0.721
##     pri_nee_soc_3     1.005    0.085   11.852    0.000    1.100    0.761
##     pri_nee_soc_4     1.120    0.082   13.615    0.000    1.227    0.801
##     pri_nee_soc_5     0.895    0.088   10.197    0.000    0.980    0.621
##     pri_nee_soc_9     1.010    0.087   11.544    0.000    1.105    0.735
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.954    0.715
##     pri_nee_gen_2     0.756    0.103    7.330    0.000    0.721    0.522
##     pri_nee_gen_3     0.637    0.077    8.323    0.000    0.608    0.539
##     pri_nee_gen_4     0.526    0.078    6.731    0.000    0.502    0.477
##     pri_nee_int_2     0.461    0.127    3.626    0.000    0.440    0.288
##     pri_nee_int_3     0.652    0.103    6.346    0.000    0.622    0.429
##     pri_nee_int_6     0.352    0.102    3.443    0.001    0.336    0.256
##     pri_nee_int_7     0.714    0.090    7.906    0.000    0.681    0.532
##     pri_nee_int_9     0.709    0.088    8.079    0.000    0.677    0.519
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.921    0.604
##     pri_nee_soc_7     1.155    0.139    8.324    0.000    1.063    0.750
##     pri_nee_soc_8     0.921    0.122    7.541    0.000    0.848    0.574
##     pri_nee_int_2     0.753    0.121    6.206    0.000    0.693    0.453
##     pri_nee_int_6     0.418    0.096    4.353    0.000    0.385    0.293
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov ~~
##     pri_nee_int       0.365    0.085    4.272    0.000    0.349    0.349
##     pri_nee_ano       0.678    0.103    6.583    0.000    0.673    0.673
##   pri_nee_int ~~
##     pri_nee_ano       0.137    0.077    1.777    0.076    0.156    0.156
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     0.931    0.094    9.950    0.000    0.931    0.437
##    .pri_nee_soc_2     1.074    0.155    6.924    0.000    1.074    0.480
##    .pri_nee_soc_3     0.878    0.122    7.209    0.000    0.878    0.420
##    .pri_nee_soc_4     0.842    0.110    7.672    0.000    0.842    0.359
##    .pri_nee_soc_5     1.530    0.150   10.185    0.000    1.530    0.614
##    .pri_nee_soc_9     1.042    0.109    9.559    0.000    1.042    0.460
##    .pri_nee_gen_1     0.871    0.111    7.846    0.000    0.871    0.489
##    .pri_nee_gen_2     1.388    0.140    9.918    0.000    1.388    0.728
##    .pri_nee_gen_3     0.903    0.090   10.047    0.000    0.903    0.710
##    .pri_nee_gen_4     0.854    0.102    8.395    0.000    0.854    0.772
##    .pri_nee_int_2     1.569    0.147   10.676    0.000    1.569    0.671
##    .pri_nee_int_3     1.716    0.146   11.792    0.000    1.716    0.816
##    .pri_nee_int_6     1.420    0.122   11.605    0.000    1.420    0.825
```

```
##    .pri_nee_int_7     1.174    0.123    9.551    0.000    1.174    0.717
##    .pri_nee_int_9     1.242    0.140    8.893    0.000    1.242    0.731
##    .pri_nee_soc_6     1.475    0.168    8.773    0.000    1.475    0.635
##    .pri_nee_soc_7     0.878    0.135    6.479    0.000    0.878    0.437
##    .pri_nee_soc_8     1.460    0.178    8.203    0.000    1.460    0.670
##     pri_nee_gov       1.199    0.171    7.009    0.000    1.000    1.000
##     pri_nee_int       0.910    0.137    6.663    0.000    1.000    1.000
##     pri_nee_ano       0.848    0.174    4.859    0.000    1.000    1.000
```

Does not yield good results. Inspect modification indices.

```
##               lhs op           rhs   mi    epc sepc.lv sepc.all sepc.nox
## 75    pri_nee_ano =~ pri_nee_gen_4 33.1 -0.430  -0.396   -0.377   -0.377
## 72    pri_nee_ano =~ pri_nee_gen_1 20.6  0.404   0.372    0.279    0.279
## 166 pri_nee_gen_1 ~~ pri_nee_gen_2 20.3  0.419   0.419    0.381    0.381
## 190 pri_nee_gen_3 ~~ pri_nee_int_6 20.0 -0.336  -0.336   -0.297   -0.297
## 215 pri_nee_int_3 ~~ pri_nee_soc_7 16.9 -0.374  -0.374   -0.305   -0.305
## 53    pri_nee_gov =~ pri_nee_int_9 16.5  0.311   0.340    0.261    0.261
## 187 pri_nee_gen_3 ~~ pri_nee_gen_4 14.7  0.233   0.233    0.265    0.265
## 162 pri_nee_soc_9 ~~ pri_nee_int_9 12.3  0.270   0.270    0.238    0.238
## 175 pri_nee_gen_1 ~~ pri_nee_soc_7 10.3  0.237   0.237    0.271    0.271
## 182 pri_nee_gen_2 ~~ pri_nee_int_7 10.3 -0.288  -0.288   -0.226   -0.226
## 48    pri_nee_gov =~ pri_nee_gen_4 10.2 -0.200  -0.219   -0.208   -0.208
## 167 pri_nee_gen_1 ~~ pri_nee_gen_3 10.2 -0.243  -0.243   -0.274   -0.274
```

As expected, items BOT_2, BOT_3, & BOT_4 cause trouble. Will be deleted.

CFA 3

```
## lavaan 0.6-3 ended normally after 43 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         35
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     202.956     171.404
##   Degrees of freedom                                85          85
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.184
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1415.306    1223.769
##   Degrees of freedom                               105         105
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.910       0.923
##   Tucker-Lewis Index (TLI)                       0.889       0.905
##
##   Robust Comparative Fit Index (CFI)                         0.921
##   Robust Tucker-Lewis Index (TLI)                            0.902
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -6697.423   -6697.423
##   Loglikelihood unrestricted model (H1)      -6595.944   -6595.944
##
##   Number of free parameters                         35          35
##   Akaike (AIC)                               13464.845   13464.845
##   Bayesian (BIC)                             13591.177   13591.177
##   Sample-size adjusted Bayesian (BIC)        13480.200   13480.200
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.071       0.061
##   90 Percent Confidence Interval          0.059  0.084       0.049  0.073
##   P-value RMSEA <= 0.05                          0.003       0.067
##
##   Robust RMSEA                                               0.066
##   90 Percent Confidence Interval                             0.052  0.081
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.070       0.070
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.097    0.752
##     pri_nee_soc_2     0.980    0.092   10.683    0.000    1.075    0.718
##     pri_nee_soc_3     1.003    0.085   11.809    0.000    1.100    0.761
##     pri_nee_soc_4     1.120    0.082   13.580    0.000    1.229    0.802
##     pri_nee_soc_5     0.893    0.088   10.181    0.000    0.979    0.620
##     pri_nee_soc_9     1.008    0.087   11.561    0.000    1.106    0.735
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.881    0.660
##     pri_nee_int_2     0.561    0.149    3.762    0.000    0.494    0.323
##     pri_nee_int_3     0.733    0.143    5.127    0.000    0.646    0.445
##     pri_nee_int_6     0.531    0.133    3.994    0.000    0.468    0.356
##     pri_nee_int_7     0.844    0.141    6.003    0.000    0.743    0.581
##     pri_nee_int_9     0.781    0.133    5.894    0.000    0.688    0.528
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.920    0.604
##     pri_nee_soc_7     1.155    0.141    8.201    0.000    1.063    0.750
##     pri_nee_soc_8     0.926    0.123    7.527    0.000    0.852    0.577
##     pri_nee_int_2     0.695    0.128    5.440    0.000    0.639    0.418
##     pri_nee_int_6     0.340    0.100    3.386    0.001    0.313    0.239
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov ~~
##     pri_nee_int       0.355    0.087    4.058    0.000    0.367    0.367
##     pri_nee_ano       0.681    0.104    6.554    0.000    0.675    0.675
##   pri_nee_int ~~
##     pri_nee_ano       0.191    0.078    2.452    0.014    0.236    0.236
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     0.927    0.094    9.872    0.000    0.927    0.435
##    .pri_nee_soc_2     1.085    0.156    6.938    0.000    1.085    0.484
##    .pri_nee_soc_3     0.878    0.123    7.167    0.000    0.878    0.420
##    .pri_nee_soc_4     0.837    0.110    7.609    0.000    0.837    0.357
##    .pri_nee_soc_5     1.532    0.150   10.210    0.000    1.532    0.615
##    .pri_nee_soc_9     1.040    0.109    9.569    0.000    1.040    0.459
##    .pri_nee_gen_1     1.005    0.147    6.835    0.000    1.005    0.564
##    .pri_nee_int_2     1.536    0.147   10.437    0.000    1.536    0.657
##    .pri_nee_int_3     1.686    0.141   11.938    0.000    1.686    0.802
##    .pri_nee_int_6     1.336    0.126   10.589    0.000    1.336    0.776
##    .pri_nee_int_7     1.086    0.127    8.519    0.000    1.086    0.663
##    .pri_nee_int_9     1.226    0.151    8.123    0.000    1.226    0.721
##    .pri_nee_soc_6     1.476    0.169    8.742    0.000    1.476    0.636
##    .pri_nee_soc_7     0.879    0.137    6.415    0.000    0.879    0.438
##    .pri_nee_soc_8     1.454    0.177    8.214    0.000    1.454    0.667
##     pri_nee_gov       1.203    0.172    7.012    0.000    1.000    1.000
```

```
##     pri_nee_int       0.776    0.162    4.781    0.000    1.000    1.000
##     pri_nee_ano       0.847    0.176    4.815    0.000    1.000    1.000
```

Shows shows improved but still not really acceptable fit. Problem is, we don't want to exclude too many items and to overfit the data. Let's inspect modification indices once more to see if there's a theoretically plausible adaption.

```
##               lhs op           rhs   mi    epc sepc.lv sepc.all sepc.nox
## 155 pri_nee_int_3 ~~ pri_nee_soc_7 17.6 -0.386  -0.386   -0.317   -0.317
## 44    pri_nee_gov =~ pri_nee_int_9 16.3  0.333   0.365    0.280    0.280
## 64    pri_nee_ano =~ pri_nee_int_3 15.0 -0.435  -0.400   -0.276   -0.276
## 63    pri_nee_ano =~ pri_nee_gen_1 13.6  0.397   0.366    0.274    0.274
## 132 pri_nee_soc_9 ~~ pri_nee_int_9 11.8  0.268   0.268    0.238    0.238
## 65    pri_nee_ano =~ pri_nee_int_7 11.4 -0.337  -0.310   -0.242   -0.242
## 55    pri_nee_int =~ pri_nee_soc_7 10.6 -0.411  -0.362   -0.255   -0.255
```

Item itg_3 is a troublemaker. As it's an inverted item, we have a good reason to delete it. Also, item itg_6 doesn't really have anything to do with anonymity; we can delete it. Likewise, item soc_5 loads on government, while it also measure anonymity. Maybe delete.

CFA 4

```
## lavaan 0.6-3 ended normally after 40 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         28
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     122.850     101.720
##   Degrees of freedom                            50          50
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.208
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1133.873     973.421
##   Degrees of freedom                            66          66
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.932       0.943
##   Tucker-Lewis Index (TLI)                       0.910       0.925
##
##   Robust Comparative Fit Index (CFI)                         0.941
##   Robust Tucker-Lewis Index (TLI)                            0.922
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -5335.808   -5335.808
##   Loglikelihood unrestricted model (H1)      -5274.383   -5274.383
##
##   Number of free parameters                         28          28
##   Akaike (AIC)                               10727.617   10727.617
##   Bayesian (BIC)                             10828.682   10828.682
##   Sample-size adjusted Bayesian (BIC)        10739.901   10739.901
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.073       0.062
##   90 Percent Confidence Interval          0.057  0.089       0.046  0.077
##   P-value RMSEA <= 0.05                          0.011       0.109
##
##   Robust RMSEA                                               0.068
##   90 Percent Confidence Interval                             0.049  0.086
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.062       0.062
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.085    0.743
##     pri_nee_soc_2     0.977    0.092   10.593    0.000    1.060    0.708
##     pri_nee_soc_3     1.022    0.088   11.639    0.000    1.109    0.767
##     pri_nee_soc_4     1.143    0.087   13.081    0.000    1.240    0.809
##     pri_nee_soc_9     1.021    0.088   11.541    0.000    1.107    0.736
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.889    0.666
##     pri_nee_int_2     0.519    0.172    3.017    0.003    0.461    0.302
##     pri_nee_int_7     0.753    0.138    5.441    0.000    0.669    0.523
##     pri_nee_int_9     0.818    0.147    5.586    0.000    0.727    0.558
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.928    0.609
##     pri_nee_soc_7     1.119    0.144    7.791    0.000    1.038    0.733
##     pri_nee_soc_8     0.922    0.122    7.545    0.000    0.855    0.579
##     pri_nee_int_2     0.637    0.138    4.616    0.000    0.591    0.387
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov ~~
##     pri_nee_int       0.421    0.092    4.588    0.000    0.437    0.437
##     pri_nee_ano       0.700    0.105    6.664    0.000    0.696    0.696
##   pri_nee_int ~~
##     pri_nee_ano       0.288    0.086    3.329    0.001    0.349    0.349
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     0.954    0.099    9.628    0.000    0.954    0.448
##    .pri_nee_soc_2     1.116    0.158    7.070    0.000    1.116    0.498
##    .pri_nee_soc_3     0.859    0.119    7.220    0.000    0.859    0.411
##    .pri_nee_soc_4     0.810    0.117    6.932    0.000    0.810    0.345
##    .pri_nee_soc_9     1.038    0.108    9.619    0.000    1.038    0.459
##    .pri_nee_gen_1     0.992    0.164    6.032    0.000    0.992    0.557
##    .pri_nee_int_2     1.585    0.149   10.670    0.000    1.585    0.678
##    .pri_nee_int_7     1.191    0.133    8.986    0.000    1.191    0.727
##    .pri_nee_int_9     1.171    0.156    7.490    0.000    1.171    0.689
##    .pri_nee_soc_6     1.462    0.172    8.522    0.000    1.462    0.629
##    .pri_nee_soc_7     0.931    0.140    6.646    0.000    0.931    0.463
##    .pri_nee_soc_8     1.449    0.175    8.258    0.000    1.449    0.665
##     pri_nee_gov       1.177    0.171    6.872    0.000    1.000    1.000
##     pri_nee_int       0.790    0.179    4.404    0.000    1.000    1.000
##     pri_nee_ano       0.861    0.180    4.768    0.000    1.000    1.000
```

Although not ideal, shows a satisfactory solution. Will be used for analyses. In what follows, run specific CFAs for the dimensions, to get a better idea how they would work when used separately.

CFA privacy need government

```
## lavaan 0.6-3 ended normally after 23 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         10
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                       9.127       7.264
##   Degrees of freedom                                 5           5
##   P-value (Chi-square)                           0.104       0.202
##   Scaling correction factor                                  1.256
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              606.691     471.613
##   Degrees of freedom                                10          10
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.993       0.995
##   Tucker-Lewis Index (TLI)                       0.986       0.990
##
##   Robust Comparative Fit Index (CFI)                         0.995
##   Robust Tucker-Lewis Index (TLI)                            0.990
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2179.858   -2179.858
##   Loglikelihood unrestricted model (H1)      -2175.294   -2175.294
##
##   Number of free parameters                         10          10
##   Akaike (AIC)                                4379.716    4379.716
##   Bayesian (BIC)                              4415.810    4415.810
##   Sample-size adjusted Bayesian (BIC)         4384.103    4384.103
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.055       0.041
##   90 Percent Confidence Interval          0.000  0.111       0.000  0.094
##   P-value RMSEA <= 0.05                          0.374       0.545
##
##   Robust RMSEA                                               0.046
##   90 Percent Confidence Interval                             0.000  0.112
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.019       0.019
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.105    0.757
##     pri_nee_soc_2     0.942    0.095    9.896    0.000    1.040    0.695
##     pri_nee_soc_3     0.993    0.089   11.190    0.000    1.097    0.759
##     pri_nee_soc_4     1.148    0.088   13.043    0.000    1.268    0.828
##     pri_nee_soc_9     0.980    0.088   11.176    0.000    1.083    0.720
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     0.910    0.104    8.736    0.000    0.910    0.427
##    .pri_nee_soc_2     1.157    0.172    6.726    0.000    1.157    0.517
##    .pri_nee_soc_3     0.885    0.128    6.925    0.000    0.885    0.424
##    .pri_nee_soc_4     0.740    0.120    6.147    0.000    0.740    0.315
##    .pri_nee_soc_9     1.091    0.111    9.836    0.000    1.091    0.482
##     pri_nee_gov       1.220    0.177    6.908    0.000    1.000    1.000
```

CFA privacy need interpersonal

```
## lavaan 0.6-3 ended normally after 27 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                          8
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      10.781      10.223
##   Degrees of freedom                                 2           2
##   P-value (Chi-square)                           0.005       0.006
##   Scaling correction factor                                  1.055
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              131.687     116.857
##   Degrees of freedom                                 6           6
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.930       0.926
##   Tucker-Lewis Index (TLI)                       0.790       0.777
##
##   Robust Comparative Fit Index (CFI)                         0.931
##   Robust Tucker-Lewis Index (TLI)                            0.792
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -1823.544   -1823.544
##   Loglikelihood unrestricted model (H1)      -1818.153   -1818.153
##
##   Number of free parameters                          8           8
##   Akaike (AIC)                                3663.087    3663.087
##   Bayesian (BIC)                              3691.963    3691.963
##   Sample-size adjusted Bayesian (BIC)         3666.597    3666.597
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.127       0.123
##   90 Percent Confidence Interval          0.060  0.205       0.057  0.200
##   P-value RMSEA <= 0.05                          0.031       0.036
##
##   Robust RMSEA                                               0.126
##   90 Percent Confidence Interval                             0.057  0.207
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.044       0.044
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.942    0.706
##     pri_nee_int_2     0.703    0.157    4.485    0.000    0.662    0.433
##     pri_nee_int_7     0.738    0.138    5.340    0.000    0.695    0.543
##     pri_nee_int_9     0.689    0.128    5.367    0.000    0.649    0.498
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_gen_1     0.893    0.184    4.865    0.000    0.893    0.501
##    .pri_nee_int_2     1.899    0.164   11.572    0.000    1.899    0.812
##    .pri_nee_int_7     1.155    0.131    8.786    0.000    1.155    0.705
##    .pri_nee_int_9     1.278    0.154    8.326    0.000    1.278    0.752
##     pri_nee_int       0.888    0.195    4.566    0.000    1.000    1.000
```

CFA privacy need anonymity

```
## lavaan 0.6-3 ended normally after 29 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                          8
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                       5.024       3.160
##   Degrees of freedom                                 2           2
##   P-value (Chi-square)                           0.081       0.206
##   Scaling correction factor                                  1.590
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              181.622     154.549
##   Degrees of freedom                                 6           6
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.983       0.992
##   Tucker-Lewis Index (TLI)                       0.948       0.977
##
##   Robust Comparative Fit Index (CFI)                         0.989
##   Robust Tucker-Lewis Index (TLI)                            0.968
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -1893.669   -1893.669
##   Loglikelihood unrestricted model (H1)      -1891.157   -1891.157
##
##   Number of free parameters                          8           8
##   Akaike (AIC)                                3803.337    3803.337
##   Bayesian (BIC)                              3832.213    3832.213
##   Sample-size adjusted Bayesian (BIC)         3806.847    3806.847
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.074       0.046
##   90 Percent Confidence Interval          0.000  0.159       0.000  0.118
##   P-value RMSEA <= 0.05                          0.228       0.442
##
##   Robust RMSEA                                               0.058
##   90 Percent Confidence Interval                             0.000  0.173
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.029       0.029
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.904    0.593
##     pri_nee_soc_7     1.143    0.164    6.964    0.000    1.033    0.729
##     pri_nee_soc_8     0.970    0.142    6.836    0.000    0.876    0.594
##     pri_nee_int_2     0.850    0.129    6.590    0.000    0.768    0.502
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_6     1.506    0.193    7.820    0.000    1.506    0.649
##    .pri_nee_soc_7     0.942    0.185    5.092    0.000    0.942    0.469
##    .pri_nee_soc_8     1.412    0.199    7.088    0.000    1.412    0.648
##    .pri_nee_int_2     1.748    0.207    8.439    0.000    1.748    0.748
##     pri_nee_ano       0.816    0.185    4.405    0.000    1.000    1.000
```

CFA bifactor

```
## lavaan 0.6-3 ended normally after 87 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         37
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      85.621      70.179
##   Degrees of freedom                                41          41
##   P-value (Chi-square)                           0.000       0.003
##   Scaling correction factor                                  1.220
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1133.873     973.421
##   Degrees of freedom                                66          66
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.958       0.968
##   Tucker-Lewis Index (TLI)                       0.933       0.948
##
##   Robust Comparative Fit Index (CFI)                         0.966
##   Robust Tucker-Lewis Index (TLI)                            0.946
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -5317.194   -5317.194
##   Loglikelihood unrestricted model (H1)      -5274.383   -5274.383
##
##   Number of free parameters                         37          37
##   Akaike (AIC)                               10708.388   10708.388
##   Bayesian (BIC)                             10841.938   10841.938
##   Sample-size adjusted Bayesian (BIC)        10724.620   10724.620
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.063       0.051
##   90 Percent Confidence Interval          0.044  0.082       0.032  0.069
##   P-value RMSEA <= 0.05                          0.120       0.440
##
##   Robust RMSEA                                               0.056
##   90 Percent Confidence Interval                             0.033  0.078
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.042       0.042
##
## Parameter Estimates:
```

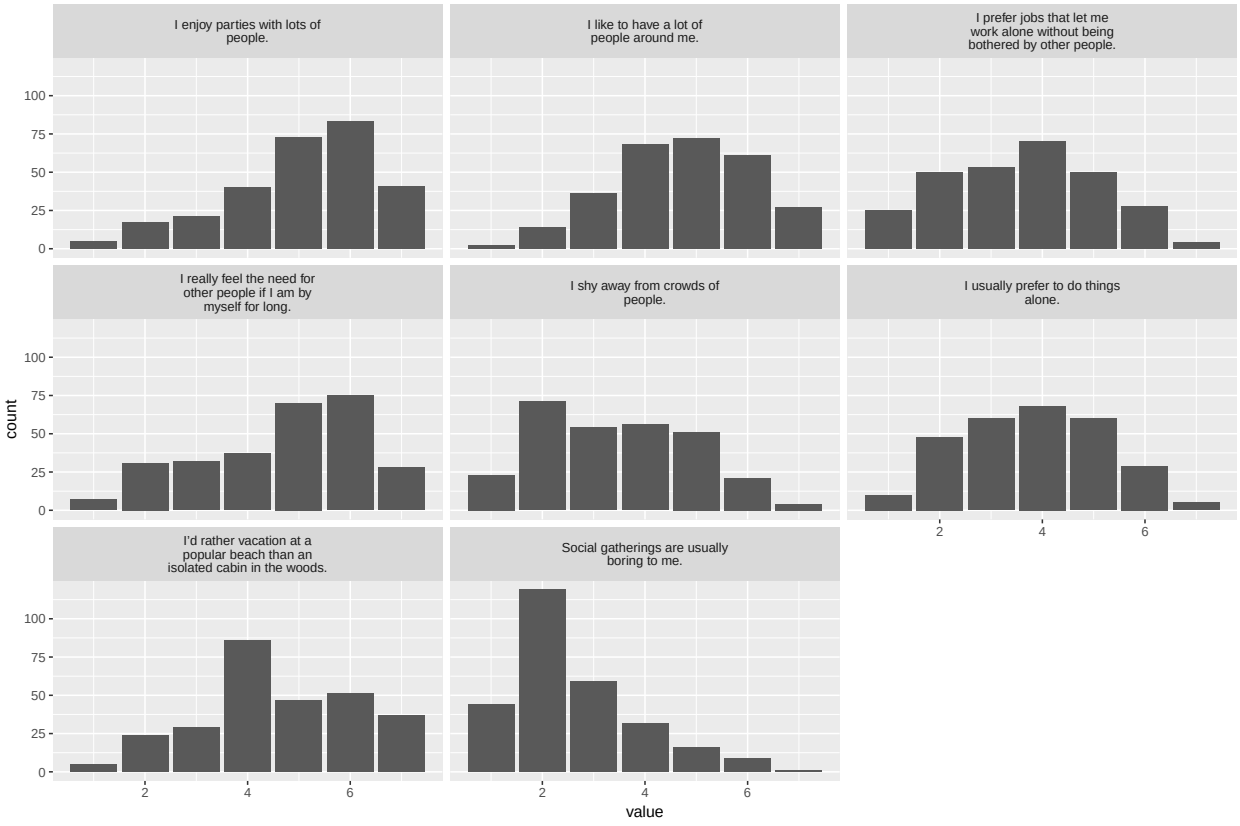
```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen =~
##     pri_nee_soc_1     1.000                               0.971    0.665
##     pri_nee_soc_2     1.036    0.106    9.798    0.000    1.006    0.672
##     pri_nee_soc_3     1.087    0.105   10.313    0.000    1.056    0.731
##     pri_nee_soc_4     1.032    0.109    9.439    0.000    1.002    0.654
##     pri_nee_soc_9     1.191    0.121    9.820    0.000    1.156    0.769
##     pri_nee_gen_1     0.418    0.101    4.160    0.000    0.406    0.304
##     pri_nee_int_2     0.662    0.119    5.568    0.000    0.642    0.419
##     pri_nee_int_7     0.151    0.097    1.559    0.119    0.147    0.115
##     pri_nee_int_9     0.570    0.098    5.795    0.000    0.554    0.425
##     pri_nee_soc_6     0.774    0.122    6.344    0.000    0.752    0.493
##     pri_nee_soc_7     0.777    0.123    6.321    0.000    0.754    0.532
##     pri_nee_soc_8     0.654    0.123    5.330    0.000    0.635    0.430
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               0.422    0.289
##     pri_nee_soc_2     0.658    0.208    3.161    0.002    0.278    0.185
##     pri_nee_soc_3     0.753    0.219    3.430    0.001    0.318    0.220
##     pri_nee_soc_4     2.658    1.791    1.484    0.138    1.121    0.732
##     pri_nee_soc_9     0.270    0.270    1.000    0.317    0.114    0.076
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.765    0.573
##     pri_nee_int_2     0.501    0.181    2.772    0.006    0.383    0.250
##     pri_nee_int_7     1.060    0.262    4.041    0.000    0.811    0.634
##     pri_nee_int_9     0.639    0.164    3.889    0.000    0.489    0.375
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.476    0.312
##     pri_nee_soc_7     1.612    0.639    2.522    0.012    0.767    0.541
##     pri_nee_soc_8     1.244    0.441    2.824    0.005    0.592    0.401
##     pri_nee_int_2     0.886    0.341    2.598    0.009    0.421    0.275
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen ~~
##     pri_nee_gov       0.000                               0.000    0.000
##     pri_nee_int       0.000                               0.000    0.000
##     pri_nee_ano       0.000                               0.000    0.000
##   pri_nee_gov ~~
##     pri_nee_int       0.000                               0.000    0.000
##     pri_nee_ano       0.000                               0.000    0.000
##   pri_nee_int ~~
##     pri_nee_ano       0.000                               0.000    0.000
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_soc_1     1.009    0.110    9.165    0.000    1.009    0.474
##    .pri_nee_soc_2     1.151    0.147    7.850    0.000    1.151    0.514
##    .pri_nee_soc_3     0.873    0.119    7.365    0.000    0.873    0.418
```

```
##    .pri_nee_soc_4     0.085    0.713    0.119    0.905    0.085    0.036
##    .pri_nee_soc_9     0.914    0.137    6.650    0.000    0.914    0.404
##    .pri_nee_gen_1     1.031    0.186    5.547    0.000    1.031    0.579
##    .pri_nee_int_2     1.609    0.169    9.536    0.000    1.609    0.686
##    .pri_nee_int_7     0.959    0.175    5.475    0.000    0.959    0.585
##    .pri_nee_int_9     1.154    0.143    8.084    0.000    1.154    0.679
##    .pri_nee_soc_6     1.531    0.170    8.979    0.000    1.531    0.659
##    .pri_nee_soc_7     0.851    0.242    3.516    0.000    0.851    0.424
##    .pri_nee_soc_8     1.426    0.212    6.726    0.000    1.426    0.654
##     pri_nee_gen       0.943    0.185    5.102    0.000    1.000    1.000
##     pri_nee_gov       0.178    0.162    1.097    0.272    1.000    1.000
##     pri_nee_int       0.585    0.181    3.238    0.001    1.000    1.000
##     pri_nee_ano       0.226    0.133    1.697    0.090    1.000    1.000
```

Bifactor-solution fits the data best. However, for theoretical reasons will not be used for the analyses.

Sociability

Items



CFA 1

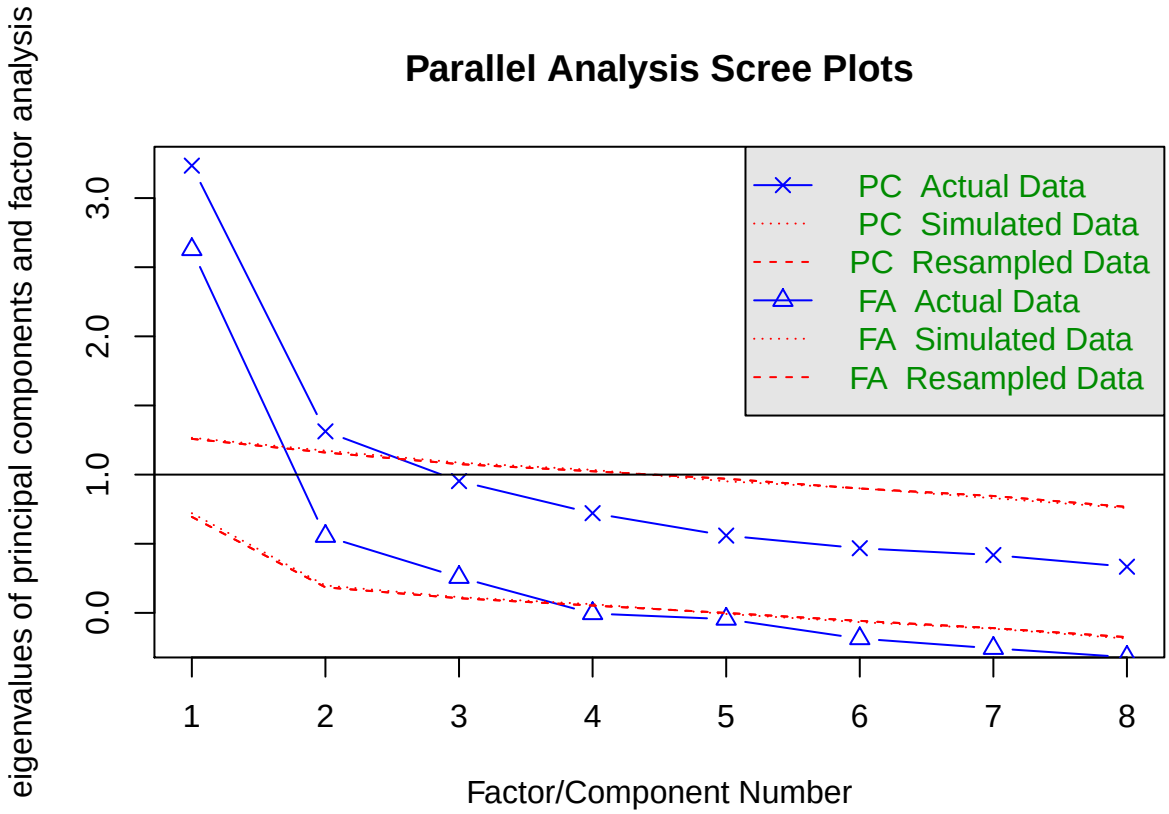
```
## lavaan 0.6-3 ended normally after 30 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         16
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     151.846     121.106
##   Degrees of freedom                                20          20
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.254
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              611.340     515.674
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.774       0.793
##   Tucker-Lewis Index (TLI)                       0.684       0.710
##
##   Robust Comparative Fit Index (CFI)                         0.781
##   Robust Tucker-Lewis Index (TLI)                            0.693
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3681.313   -3681.313
##   Loglikelihood unrestricted model (H1)      -3605.390   -3605.390
##
##   Number of free parameters                         16          16
##   Akaike (AIC)                                7394.627    7394.627
##   Bayesian (BIC)                              7452.378    7452.378
##   Sample-size adjusted Bayesian (BIC)         7401.646    7401.646
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.155       0.136
##   90 Percent Confidence Interval          0.133  0.179       0.116  0.157
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.152
##   90 Percent Confidence Interval                             0.127  0.179
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.090       0.090
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc =~
##     soc_1            1.000                               1.008    0.676
##     soc_2            0.979    0.100    9.826    0.000    0.987    0.722
##     soc_3            0.676    0.095    7.130    0.000    0.682    0.485
##     soc_4            0.584    0.113    5.180    0.000    0.589    0.371
##     soc_5            0.679    0.103    6.587    0.000    0.685    0.456
##     soc_6            0.557    0.106    5.264    0.000    0.562    0.364
##     soc_7            0.839    0.082   10.268    0.000    0.846    0.670
##     soc_8            1.016    0.095   10.745    0.000    1.024    0.698
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_1            1.209    0.129    9.375    0.000    1.209    0.543
##    .soc_2            0.895    0.118    7.554    0.000    0.895    0.479
##    .soc_3            1.516    0.123   12.344    0.000    1.516    0.765
##    .soc_4            2.175    0.173   12.596    0.000    2.175    0.863
##    .soc_5            1.791    0.162   11.037    0.000    1.791    0.792
##    .soc_6            2.061    0.154   13.424    0.000    2.061    0.867
##    .soc_7            0.880    0.115    7.618    0.000    0.880    0.551
##    .soc_8            1.103    0.138    7.976    0.000    1.103    0.513
##     soc              1.017    0.164    6.191    0.000    1.000    1.000
```

Does not show sufficient fit. Run EFAs to determine underlying factor structure.

EFA 1

Parallel analysis




```
## Parallel analysis suggests that the number of factors =  3  and the number of components =  2
```

Factor analysis

```
##
## Loadings:
##       ML2    ML3    ML1
## soc_1  0.493  0.380 -0.127
## soc_2  0.511  0.163  0.285
## soc_3         0.642
## soc_4                0.996
## soc_5         0.753
## soc_6  0.477 -0.189  0.134
## soc_7  0.517  0.256
## soc_8  0.860
##
##                  ML2   ML3   ML1
## SS loadings    1.740 1.257 1.118
## Proportion Var 0.217 0.157 0.140
## Cumulative Var 0.217 0.375 0.514
```

The three factor solution does not show a coherent picture; for example, Factor 3 is determined by a single item.

EFA 2

Factor analysis

```
##
## Loadings:
##       ML1    ML2
## soc_1  0.441  0.359
## soc_2  0.685
## soc_3  0.104  0.599
## soc_4  0.423
## soc_5         0.779
## soc_6  0.558 -0.223
## soc_7  0.512  0.254
## soc_8  0.791
##
##                  ML1   ML2
## SS loadings    2.055 1.222
## Proportion Var 0.257 0.153
## Cumulative Var 0.257 0.410
```

Seems more plausible. Will be modelled as bifactor solution next.

CFA 2

```
## lavaan 0.6-3 ended normally after 44 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         18
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      81.367      70.983
##   Degrees of freedom                                18          18
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.146
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              611.340     515.674
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.891       0.891
##   Tucker-Lewis Index (TLI)                       0.831       0.831
##
##   Robust Comparative Fit Index (CFI)                         0.895
##   Robust Tucker-Lewis Index (TLI)                            0.837
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3646.074   -3646.074
##   Loglikelihood unrestricted model (H1)      -3605.390   -3605.390
##
##   Number of free parameters                         18          18
##   Akaike (AIC)                                7328.147    7328.147
##   Bayesian (BIC)                              7393.118    7393.118
##   Sample-size adjusted Bayesian (BIC)         7336.044    7336.044
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.114       0.104
##   90 Percent Confidence Interval          0.089  0.139       0.081  0.128
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.111
##   90 Percent Confidence Interval                             0.085  0.139
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.083       0.083
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc_one =~
##     soc_1      (a)    1.000                               0.662    0.427
##     soc_3      (a)    1.000                               0.662    0.466
##     soc_5      (a)    1.000                               0.662    0.452
##     soc_7      (a)    1.000                               0.662    0.519
##   soc_two =~
##     soc_1      (b)    1.000                               0.722    0.466
##     soc_2      (b)    1.000                               0.722    0.533
##     soc_4      (b)    1.000                               0.722    0.434
##     soc_6      (b)    1.000                               0.722    0.459
##     soc_7      (b)    1.000                               0.722    0.566
##     soc_8      (b)    1.000                               0.722    0.519
##   soc_gen =~
##     soc_1             1.000                               0.536    0.345
##     soc_2             1.646    0.400    4.114    0.000    0.882    0.651
##     soc_3             1.513    0.361    4.196    0.000    0.811    0.570
##     soc_4             1.021    0.340    3.008    0.003    0.547    0.329
##     soc_5             1.303    0.301    4.332    0.000    0.698    0.477
##     soc_6             0.517    0.245    2.114    0.035    0.277    0.176
##     soc_7             0.423    0.175    2.413    0.016    0.226    0.177
##     soc_8             0.909    0.195    4.657    0.000    0.487    0.350
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc_one ~~
##     soc_two           0.000                               0.000    0.000
##     soc_gen           0.000                               0.000    0.000
##   soc_two ~~
##     soc_gen           0.000                               0.000    0.000
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_1             1.158    0.115   10.065    0.000    1.158    0.482
##    .soc_3             0.925    0.147    6.279    0.000    0.925    0.458
##    .soc_5             1.220    0.142    8.567    0.000    1.220    0.569
##    .soc_7             0.619    0.117    5.293    0.000    0.619    0.380
##    .soc_2             0.535    0.143    3.748    0.000    0.535    0.292
##    .soc_4             1.952    0.186   10.489    0.000    1.952    0.704
##    .soc_6             1.881    0.152   12.379    0.000    1.881    0.759
##    .soc_8             1.178    0.127    9.262    0.000    1.178    0.608
##     soc_one           0.438    0.091    4.826    0.000    1.000    1.000
##     soc_two           0.522    0.084    6.177    0.000    1.000    1.000
##     soc_gen           0.287    0.130    2.214    0.027    1.000    1.000
```

Shows no solution for two factors. Single-dimension solution will be fitted next.

CFA 3

```
## lavaan 0.6-3 ended normally after 28 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         12
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      76.986      60.090
##   Degrees of freedom                                 9           9
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.281
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              444.982     351.850
##   Degrees of freedom                                15          15
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.842       0.848
##   Tucker-Lewis Index (TLI)                       0.736       0.747
##
##   Robust Comparative Fit Index (CFI)                         0.846
##   Robust Tucker-Lewis Index (TLI)                            0.744
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2747.687   -2747.687
##   Loglikelihood unrestricted model (H1)      -2709.194   -2709.194
##
##   Number of free parameters                         12          12
##   Akaike (AIC)                                5519.375    5519.375
##   Bayesian (BIC)                              5562.688    5562.688
##   Sample-size adjusted Bayesian (BIC)         5524.639    5524.639
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.166       0.144
##   90 Percent Confidence Interval          0.133  0.202       0.115  0.176
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.163
##   90 Percent Confidence Interval                             0.125  0.204
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.075       0.075
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc_gen =~
##     soc_1            1.000                               0.934    0.626
##     soc_2            1.067    0.114    9.372    0.000    0.996    0.729
##     soc_4            0.655    0.128    5.100    0.000    0.612    0.385
##     soc_6            0.689    0.121    5.716    0.000    0.644    0.417
##     soc_7            0.878    0.094    9.359    0.000    0.820    0.649
##     soc_8            1.188    0.118   10.078    0.000    1.109    0.756
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_1            1.354    0.138    9.818    0.000    1.354    0.608
##    .soc_2            0.877    0.123    7.153    0.000    0.877    0.469
##    .soc_4            2.148    0.173   12.401    0.000    2.148    0.852
##    .soc_6            1.962    0.154   12.702    0.000    1.962    0.826
##    .soc_7            0.924    0.132    7.009    0.000    0.924    0.579
##    .soc_8            0.921    0.136    6.763    0.000    0.921    0.428
##     soc_gen          0.872    0.162    5.374    0.000    1.000    1.000
```

Uni-dimensional solution with 6 items not feasible; need to reduce to 4.

CFA 4

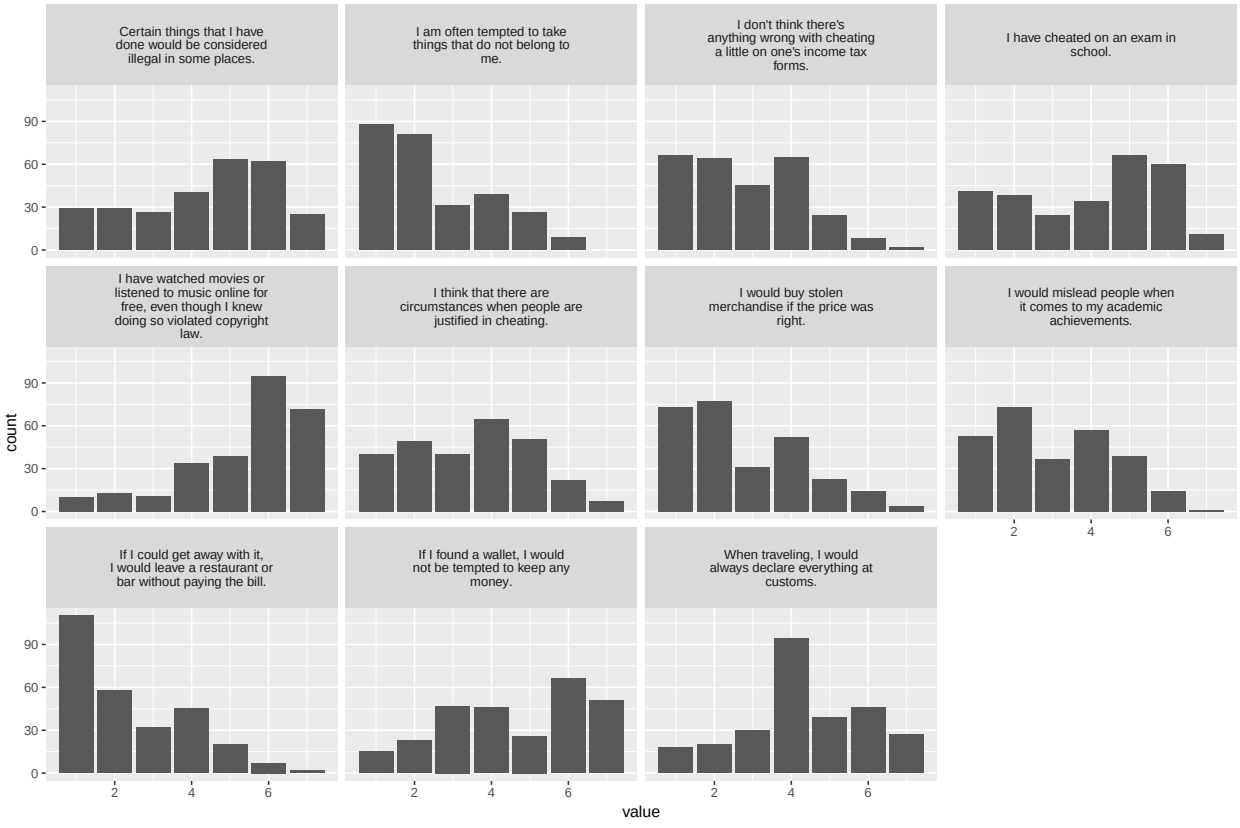
```
## lavaan 0.6-3 ended normally after 23 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                          8
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                       8.014       6.195
##   Degrees of freedom                                 2           2
##   P-value (Chi-square)                           0.018       0.045
##   Scaling correction factor                                  1.293
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              307.550     228.680
##   Degrees of freedom                                 6           6
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.980       0.981
##   Tucker-Lewis Index (TLI)                       0.940       0.943
##
##   Robust Comparative Fit Index (CFI)                         0.982
##   Robust Tucker-Lewis Index (TLI)                            0.946
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -1762.758   -1762.758
##   Loglikelihood unrestricted model (H1)      -1758.752   -1758.752
##
##   Number of free parameters                          8           8
##   Akaike (AIC)                                3541.517    3541.517
##   Bayesian (BIC)                              3570.393    3570.393
##   Sample-size adjusted Bayesian (BIC)         3545.027    3545.027
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.105       0.088
##   90 Percent Confidence Interval          0.037  0.185       0.022  0.160
##   P-value RMSEA <= 0.05                          0.084       0.139
##
##   Robust RMSEA                                               0.100
##   90 Percent Confidence Interval                             0.013  0.193
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.027       0.027
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc_gen =~
##     soc_1            1.000                               1.023    0.686
##     soc_2            0.897    0.102    8.795    0.000    0.918    0.672
##     soc_7            0.850    0.091    9.299    0.000    0.870    0.689
##     soc_8            1.059    0.105   10.069    0.000    1.084    0.739
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_1            1.178    0.132    8.956    0.000    1.178    0.529
##    .soc_2            1.026    0.132    7.778    0.000    1.026    0.549
##    .soc_7            0.838    0.125    6.686    0.000    0.838    0.525
##    .soc_8            0.977    0.167    5.849    0.000    0.977    0.454
##     soc_gen          1.047    0.170    6.175    0.000    1.000    1.000
```

Shows adequate fit.

Integrity

Items



Does not show adequate fit.

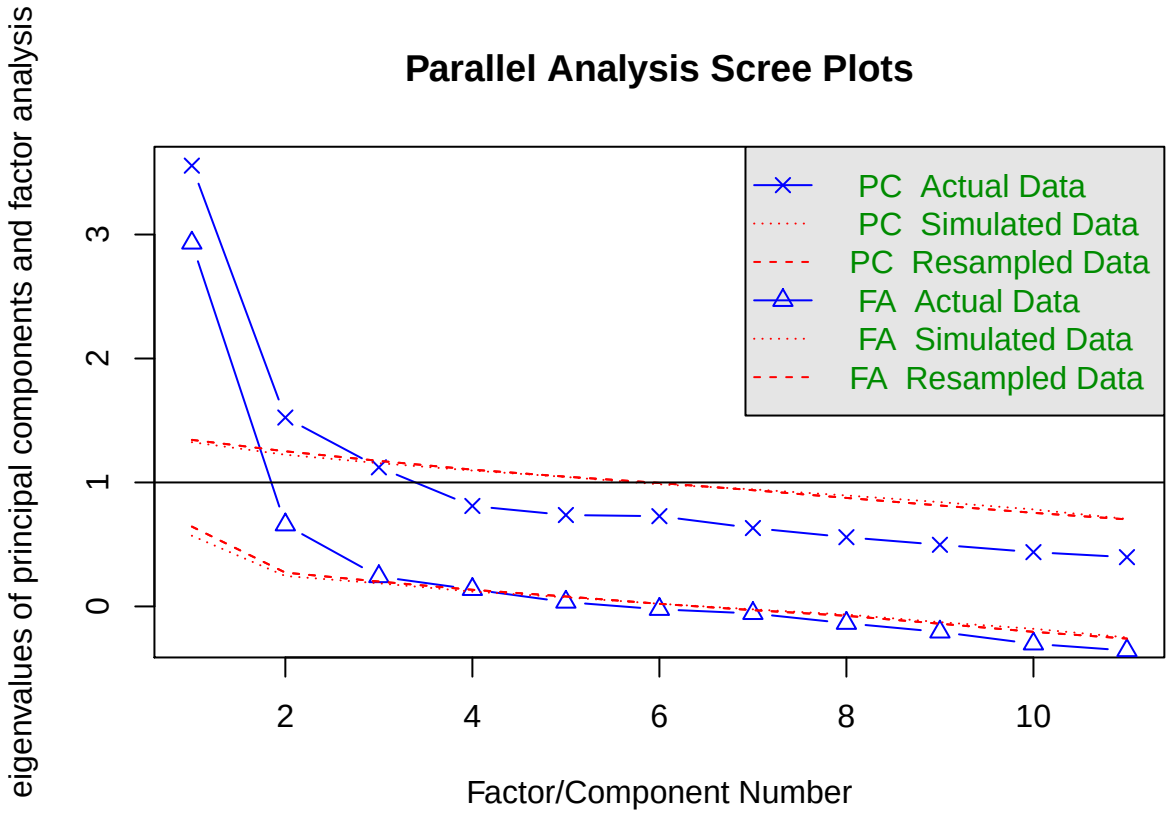
CFA 1

```
## lavaan 0.6-3 ended normally after 30 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         22
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     153.687     139.219
##   Degrees of freedom                                44          44
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.104
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              686.975     618.697
##   Degrees of freedom                                55          55
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.826       0.831
##   Tucker-Lewis Index (TLI)                       0.783       0.789
##
##   Robust Comparative Fit Index (CFI)                         0.832
##   Robust Tucker-Lewis Index (TLI)                            0.790
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -5430.335   -5430.335
##   Loglikelihood unrestricted model (H1)      -5353.491   -5353.491
##
##   Number of free parameters                         22          22
##   Akaike (AIC)                               10904.669   10904.669
##   Bayesian (BIC)                             10984.078   10984.078
##   Sample-size adjusted Bayesian (BIC)        10914.321   10914.321
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.096       0.089
##   90 Percent Confidence Interval          0.079  0.112       0.073  0.105
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.094
##   90 Percent Confidence Interval                             0.076  0.111
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.078       0.078
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   itg =~
##     itg_1            1.000                               1.038    0.710
##     itg_2            0.864    0.096    9.042    0.000    0.897    0.613
##     itg_3            0.029    0.116    0.246    0.805    0.030    0.019
##     itg_4            0.315    0.130    2.419    0.016    0.327    0.181
##     itg_5            0.886    0.100    8.855    0.000    0.919    0.611
##     itg_6            1.102    0.103   10.748    0.000    1.144    0.721
##     itg_7            0.919    0.093    9.825    0.000    0.954    0.623
##     itg_8            0.848    0.111    7.667    0.000    0.880    0.541
##     itg_9            0.899    0.118    7.617    0.000    0.933    0.503
##     itg_10           0.318    0.109    2.907    0.004    0.330    0.211
##     itg_11           0.651    0.130    5.014    0.000    0.676    0.374
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .itg_1            1.062    0.146    7.285    0.000    1.062    0.496
##    .itg_2            1.333    0.174    7.642    0.000    1.333    0.624
##    .itg_3            2.541    0.193   13.171    0.000    2.541    1.000
##    .itg_4            3.170    0.227   13.937    0.000    3.170    0.967
##    .itg_5            1.418    0.160    8.871    0.000    1.418    0.626
##    .itg_6            1.208    0.174    6.960    0.000    1.208    0.480
##    .itg_7            1.435    0.178    8.043    0.000    1.435    0.612
##    .itg_8            1.871    0.179   10.462    0.000    1.871    0.707
##    .itg_9            2.568    0.175   14.694    0.000    2.568    0.747
##    .itg_10           2.346    0.203   11.578    0.000    2.346    0.956
##    .itg_11           2.803    0.194   14.457    0.000    2.803    0.860
##     itg              1.078    0.167    6.464    0.000    1.000    1.000
```

EFA 1

Parallel analysis




```
## Parallel analysis suggests that the number of factors =  3  and the number of components =  2
```

Factor analysis 1

```
##
## Loadings:
##        ML2    ML3    ML1
## itg_1   0.733
## itg_2   0.586
## itg_3                 0.998
## itg_4   0.239         0.281
## itg_5   0.703 -0.107
## itg_6   0.671  0.101
## itg_7   0.593
## itg_8   0.306  0.386
## itg_9   0.151  0.594
## itg_10 -0.161  0.594
## itg_11         0.504 -0.108
##
##                  ML2   ML3  ML1
## SS loadings    2.382 1.146 1.10
## Proportion Var 0.217 0.104 0.10
## Cumulative Var 0.217 0.321 0.42
```

Two factors don't really convince, as factor 3 consists of one item only. Will try two-factor solution.

Factor analysis 2

```
##
## Loadings:
##        ML1    ML2
## itg_1   0.725
## itg_2   0.602
## itg_3   0.182 -0.251
## itg_4   0.323 -0.211
## itg_5   0.711 -0.119
## itg_6   0.660  0.117
## itg_7   0.573
## itg_8   0.325  0.369
## itg_9   0.195  0.531
## itg_10 -0.128  0.556
## itg_11         0.566
##
##                  ML1   ML2
## SS loadings    2.456 1.193
## Proportion Var 0.223 0.108
## Cumulative Var 0.223 0.332
```

Suggests that item 3 and item 4 should be dropped.

CFA 2

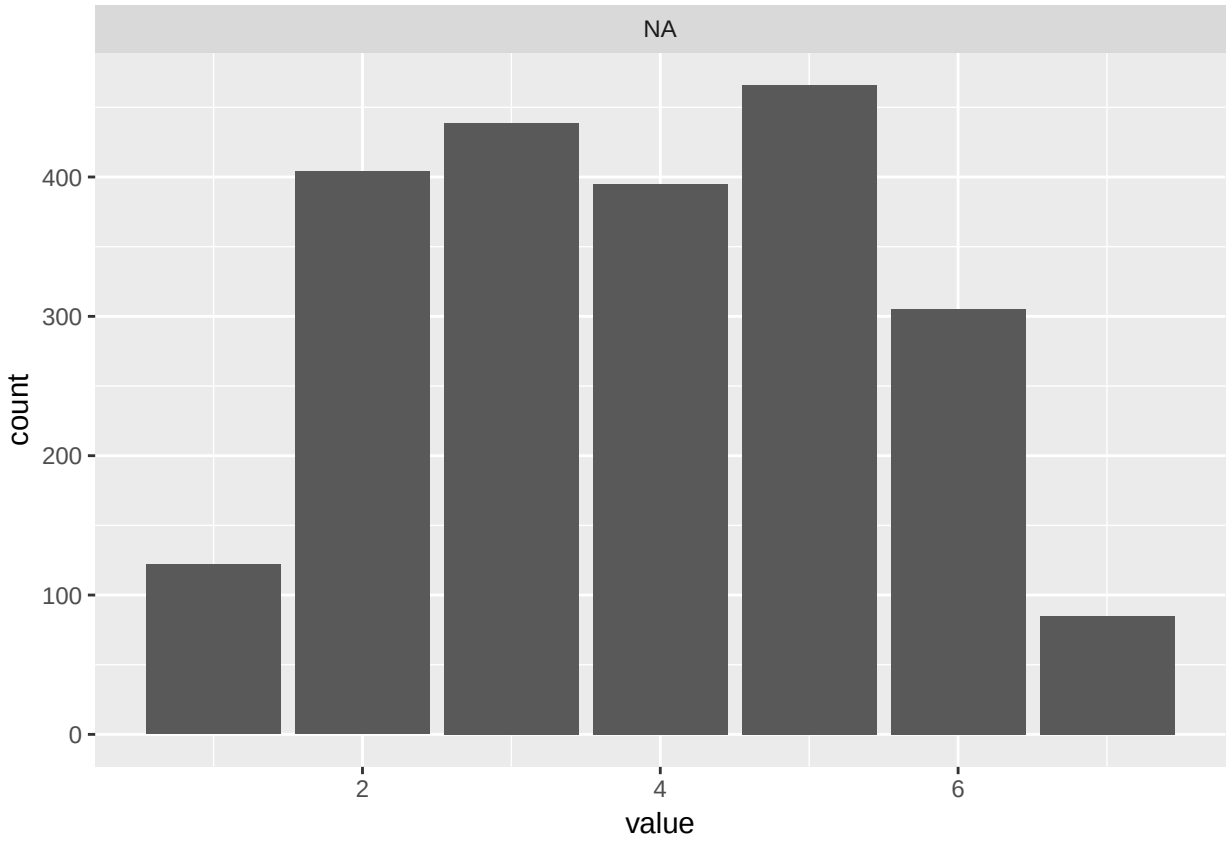
```
## lavaan 0.6-3 ended normally after 36 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         20
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      51.646      47.441
##   Degrees of freedom                                25          25
##   P-value (Chi-square)                           0.001       0.004
##   Scaling correction factor                                  1.089
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              634.166     602.164
##   Degrees of freedom                                36          36
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.955       0.960
##   Tucker-Lewis Index (TLI)                       0.936       0.943
##
##   Robust Comparative Fit Index (CFI)                         0.959
##   Robust Tucker-Lewis Index (TLI)                            0.941
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -4341.632   -4341.632
##   Loglikelihood unrestricted model (H1)      -4315.809   -4315.809
##
##   Number of free parameters                         20          20
##   Akaike (AIC)                                8723.265    8723.265
##   Bayesian (BIC)                              8795.454    8795.454
##   Sample-size adjusted Bayesian (BIC)         8732.039    8732.039
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.062       0.057
##   90 Percent Confidence Interval          0.038  0.087       0.033  0.081
##   P-value RMSEA <= 0.05                          0.183       0.284
##
##   Robust RMSEA                                               0.060
##   90 Percent Confidence Interval                             0.033  0.086
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.044       0.044
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   int_1 =~
##     itg_1      (a)    1.000                               0.564    0.390
##     itg_2      (a)    1.000                               0.564    0.387
##     itg_5      (a)    1.000                               0.564    0.377
##     itg_6      (a)    1.000                               0.564    0.354
##     itg_7      (a)    1.000                               0.564    0.365
##     itg_8      (a)    1.000                               0.564    0.341
##   int_2 =~
##     itg_8      (b)    1.000                               0.712    0.431
##     itg_9      (b)    1.000                               0.712    0.388
##     itg_10     (b)    1.000                               0.712    0.452
##     itg_11     (b)    1.000                               0.712    0.395
##   itg_gen =~
##     itg_1             1.000                               0.871    0.602
##     itg_2             0.802    0.129    6.217    0.000    0.698    0.479
##     itg_5             0.865    0.140    6.183    0.000    0.754    0.503
##     itg_6             1.173    0.146    8.016    0.000    1.022    0.641
##     itg_7             0.938    0.125    7.500    0.000    0.817    0.529
##     itg_8             0.721    0.150    4.808    0.000    0.628    0.380
##     itg_9             1.151    0.276    4.162    0.000    1.003    0.546
##     itg_10            0.393    0.165    2.383    0.017    0.343    0.218
##     itg_11            0.753    0.215    3.495    0.000    0.656    0.364
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   int_1 ~~
##     int_2             0.000                               0.000    0.000
##     itg_gen           0.000                               0.000    0.000
##   int_2 ~~
##     itg_gen           0.000                               0.000    0.000
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .itg_1             1.019    0.146    6.976    0.000    1.019    0.486
##    .itg_2             1.322    0.169    7.812    0.000    1.322    0.621
##    .itg_5             1.354    0.155    8.724    0.000    1.354    0.605
##    .itg_6             1.181    0.184    6.414    0.000    1.181    0.464
##    .itg_7             1.404    0.179    7.841    0.000    1.404    0.587
##    .itg_8             1.512    0.178    8.476    0.000    1.512    0.554
##    .itg_9             1.856    0.260    7.142    0.000    1.856    0.551
##    .itg_10            1.852    0.188    9.828    0.000    1.852    0.748
##    .itg_11            2.309    0.231    9.998    0.000    2.309    0.711
##     int_1             0.318    0.162    1.964    0.050    1.000    1.000
##     int_2             0.507    0.093    5.469    0.000    1.000    1.000
##     itg_gen           0.759    0.219    3.462    0.001    1.000    1.000
```

The data fit a bifactor model well.

Anxiety

Items



CFA 1

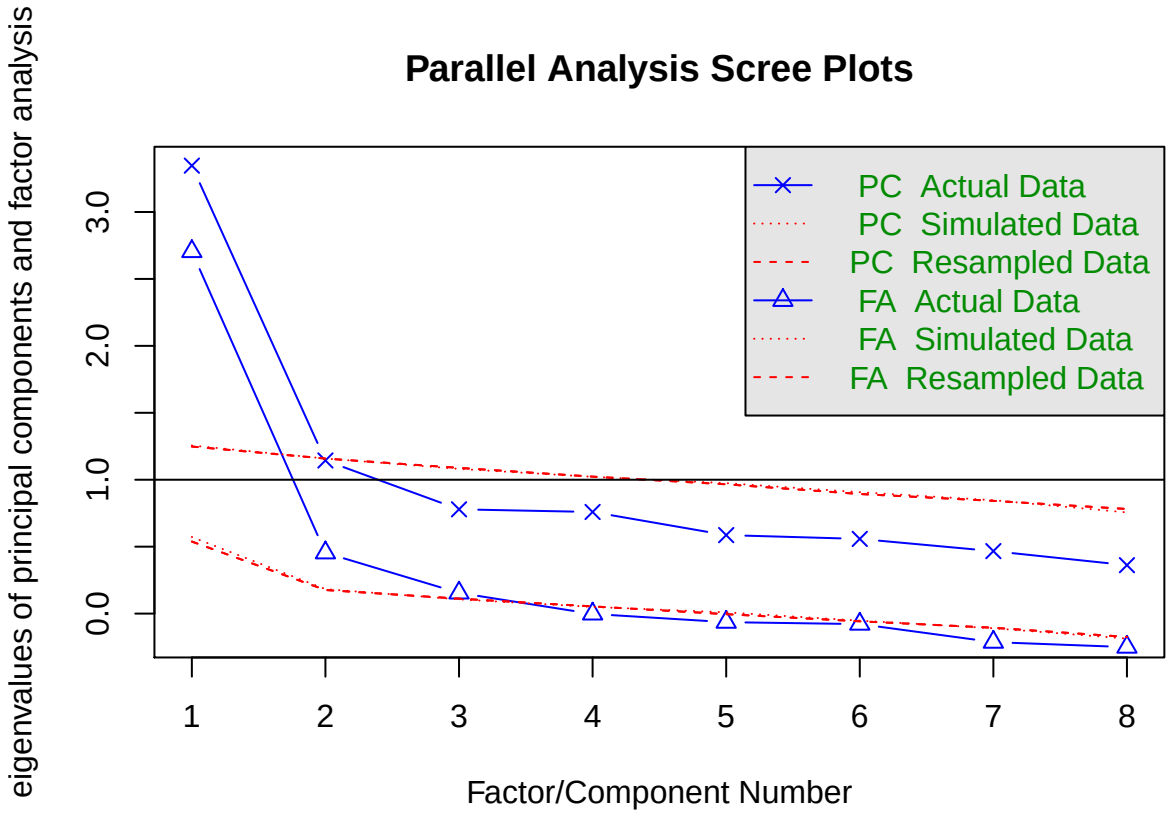
```
## lavaan 0.6-3 ended normally after 28 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         16
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     103.655      74.424
##   Degrees of freedom                                20          20
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.393
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              568.029     463.372
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.845       0.875
##   Tucker-Lewis Index (TLI)                       0.783       0.825
##
##   Robust Comparative Fit Index (CFI)                         0.858
##   Robust Tucker-Lewis Index (TLI)                            0.801
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3716.797   -3716.797
##   Loglikelihood unrestricted model (H1)      -3664.970   -3664.970
##
##   Number of free parameters                         16          16
##   Akaike (AIC)                                7465.594    7465.594
##   Bayesian (BIC)                              7523.345    7523.345
##   Sample-size adjusted Bayesian (BIC)         7472.613    7472.613
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.124       0.100
##   90 Percent Confidence Interval          0.101  0.148       0.080  0.121
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.118
##   90 Percent Confidence Interval                             0.090  0.147
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.070       0.070
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   anx =~
##     anx_1            1.000                               0.972    0.646
##     anx_2            0.951    0.132    7.202    0.000    0.924    0.588
##     anx_3            0.878    0.117    7.485    0.000    0.853    0.573
##     anx_4            0.826    0.109    7.588    0.000    0.803    0.581
##     anx_5            0.525    0.112    4.681    0.000    0.510    0.354
##     anx_6            0.933    0.107    8.746    0.000    0.907    0.633
##     anx_7            0.931    0.119    7.803    0.000    0.905    0.604
##     anx_8            0.953    0.118    8.068    0.000    0.926    0.621
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .anx_1            1.319    0.163    8.100    0.000    1.319    0.583
##    .anx_2            1.621    0.184    8.794    0.000    1.621    0.655
##    .anx_3            1.490    0.197    7.574    0.000    1.490    0.672
##    .anx_4            1.268    0.124   10.217    0.000    1.268    0.663
##    .anx_5            1.817    0.149   12.233    0.000    1.817    0.875
##    .anx_6            1.230    0.157    7.836    0.000    1.230    0.599
##    .anx_7            1.424    0.160    8.905    0.000    1.424    0.635
##    .anx_8            1.368    0.142    9.612    0.000    1.368    0.615
##     anx              0.945    0.174    5.446    0.000    1.000    1.000
```

Does not show adequate fit.

EFA 1

Parallel analysis




```
## Parallel analysis suggests that the number of factors =  2  and the number of components =  1
```

Implies three dimension.

Factor analysis

```
##
## Loadings:
##       ML2    ML1
## anx_1          0.844
## anx_2  0.623
## anx_3          0.583
## anx_4  0.526  0.115
## anx_5          0.415
## anx_6  0.468  0.252
## anx_7  0.253  0.420
## anx_8  0.802
##
##                  ML2   ML1
## SS loadings    1.6 1.485
## Proportion Var 0.2 0.186
## Cumulative Var 0.2 0.385
```

Seems appropriate. First, try bifactor solution.

CFA 2

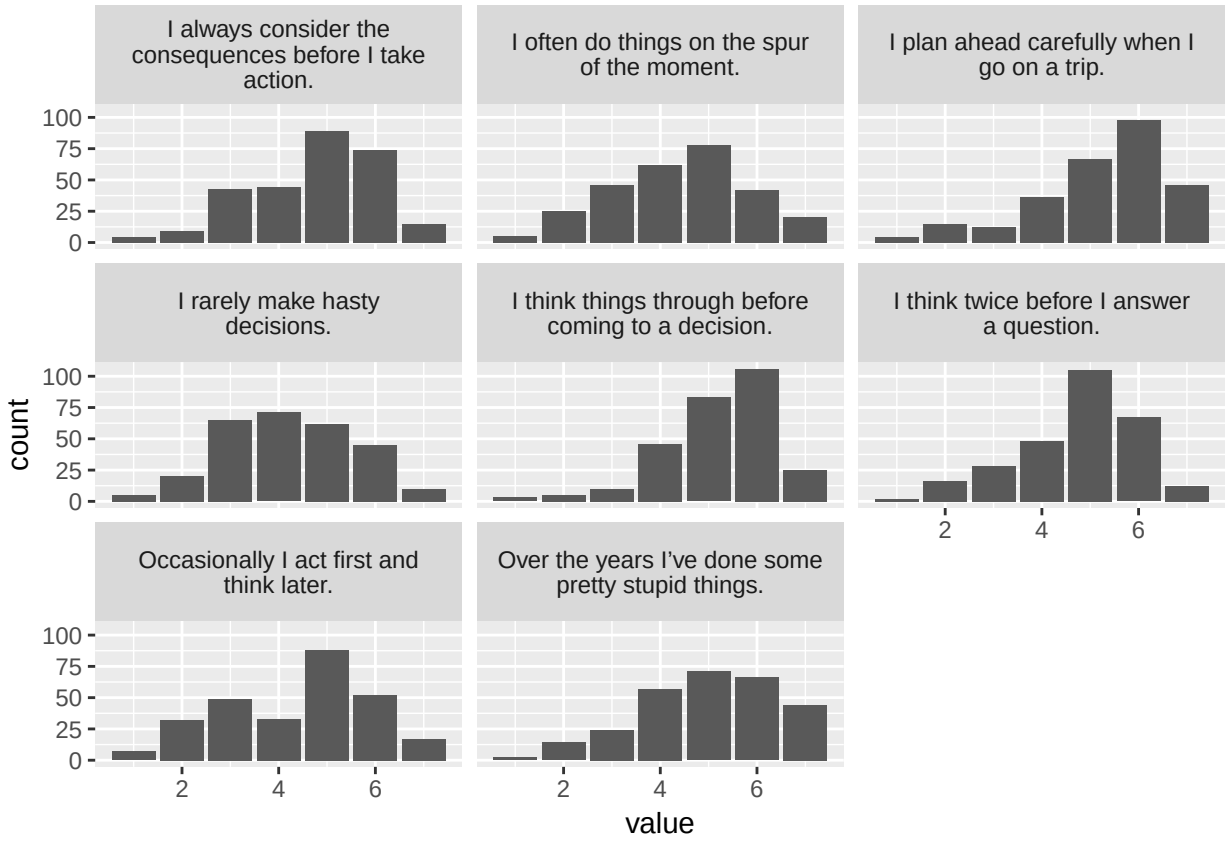
```
## lavaan 0.6-3 ended normally after 35 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         18
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      49.242      36.984
##   Degrees of freedom                                18          18
##   P-value (Chi-square)                           0.000       0.005
##   Scaling correction factor                                  1.331
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              568.029     463.372
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.942       0.956
##   Tucker-Lewis Index (TLI)                       0.910       0.932
##
##   Robust Comparative Fit Index (CFI)                         0.953
##   Robust Tucker-Lewis Index (TLI)                            0.926
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3689.591   -3689.591
##   Loglikelihood unrestricted model (H1)      -3664.970   -3664.970
##
##   Number of free parameters                         18          18
##   Akaike (AIC)                                7415.181    7415.181
##   Bayesian (BIC)                              7480.152    7480.152
##   Sample-size adjusted Bayesian (BIC)         7423.078    7423.078
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.080       0.062
##   90 Percent Confidence Interval          0.054  0.107       0.037  0.087
##   P-value RMSEA <= 0.05                          0.032       0.193
##
##   Robust RMSEA                                               0.072
##   90 Percent Confidence Interval                             0.038  0.105
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.041       0.041
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   anx_one =~
##     anx_2      (a)    1.000                               0.436    0.277
##     anx_4      (a)    1.000                               0.436    0.316
##     anx_6      (a)    1.000                               0.436    0.303
##     anx_8      (a)    1.000                               0.436    0.294
##   anx_two =~
##     anx_1      (b)    1.000                               0.597    0.399
##     anx_3      (b)    1.000                               0.597    0.402
##     anx_5      (b)    1.000                               0.597    0.414
##     anx_7      (b)    1.000                               0.597    0.396
##   anx_gen =~
##     anx_2             1.000                               0.898    0.569
##     anx_4             0.844    0.136    6.223    0.000    0.758    0.548
##     anx_7             0.889    0.271    3.282    0.001    0.798    0.529
##     anx_8             1.009    0.146    6.917    0.000    0.906    0.611
##     anx_1             0.984    0.282    3.490    0.000    0.883    0.590
##     anx_3             0.843    0.258    3.269    0.001    0.757    0.509
##     anx_5             0.406    0.186    2.190    0.029    0.365    0.253
##     anx_6             0.967    0.151    6.418    0.000    0.869    0.604
##
## Covariances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   anx_one ~~
##     anx_two           0.000                               0.000    0.000
##     anx_gen           0.000                               0.000    0.000
##   anx_two ~~
##     anx_gen           0.000                               0.000    0.000
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .anx_2             1.494    0.184    8.112    0.000    1.494    0.600
##    .anx_4             1.147    0.118    9.737    0.000    1.147    0.600
##    .anx_6             1.126    0.152    7.406    0.000    1.126    0.544
##    .anx_8             1.186    0.131    9.040    0.000    1.186    0.540
##    .anx_1             1.107    0.148    7.461    0.000    1.107    0.493
##    .anx_3             1.279    0.187    6.827    0.000    1.279    0.579
##    .anx_5             1.589    0.153   10.362    0.000    1.589    0.764
##    .anx_7             1.279    0.153    8.352    0.000    1.279    0.563
##     anx_one           0.190    0.209    0.912    0.362    1.000    1.000
##     anx_two           0.357    0.168    2.120    0.034    1.000    1.000
##     anx_gen           0.806    0.267    3.025    0.002    1.000    1.000
```

Shows an adequate solution.

Risk avoidance

Items



CFA 1

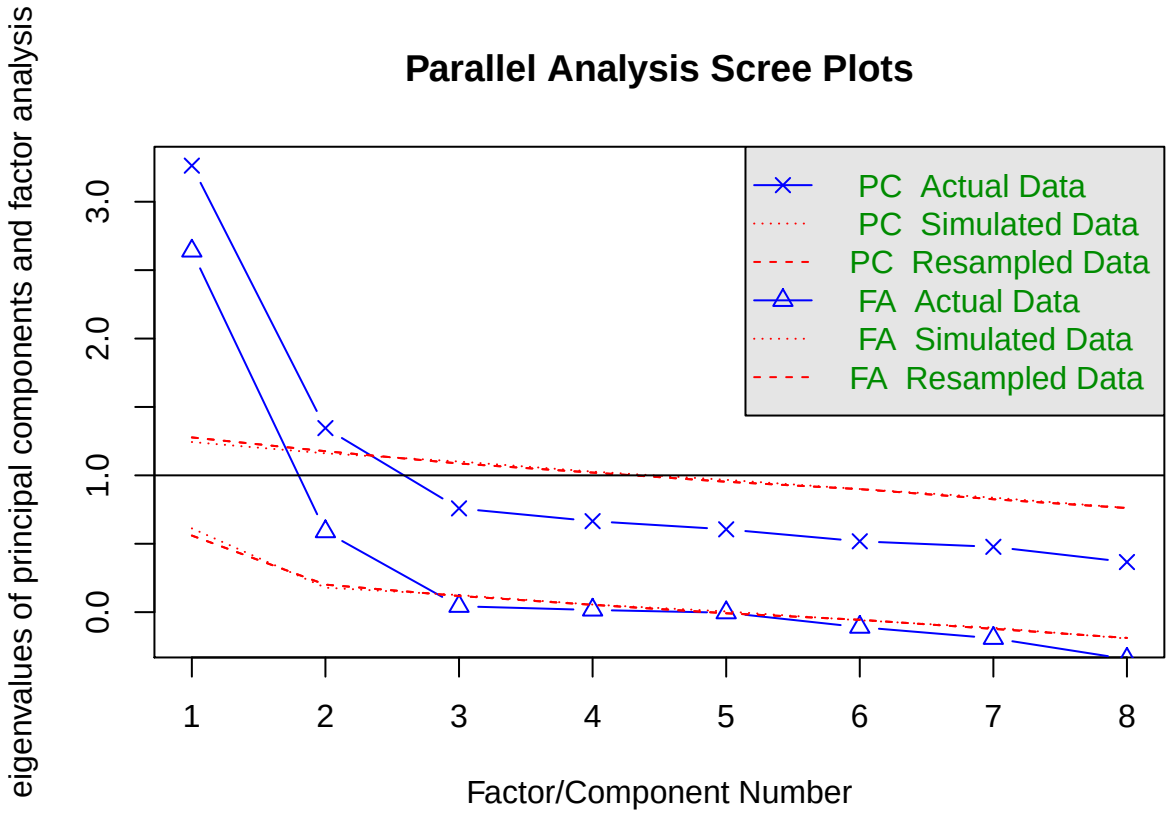
```
## lavaan 0.6-3 ended normally after 42 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         16
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     116.607      98.156
##   Degrees of freedom                                20          20
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.188
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              575.375     418.315
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.824       0.800
##   Tucker-Lewis Index (TLI)                       0.753       0.720
##
##   Robust Comparative Fit Index (CFI)                         0.827
##   Robust Tucker-Lewis Index (TLI)                            0.758
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3488.796   -3488.796
##   Loglikelihood unrestricted model (H1)      -3430.492   -3430.492
##
##   Number of free parameters                         16          16
##   Akaike (AIC)                                7009.591    7009.591
##   Bayesian (BIC)                              7067.343    7067.343
##   Sample-size adjusted Bayesian (BIC)         7016.611    7016.611
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.133       0.120
##   90 Percent Confidence Interval          0.110  0.157       0.098  0.142
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.130
##   90 Percent Confidence Interval                             0.105  0.157
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.086       0.086
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   ria =~
##     ria_1            1.000                               0.400    0.288
##     ria_2            1.928    0.416    4.631    0.000    0.771    0.690
##     ria_3            1.774    0.378    4.689    0.000    0.710    0.469
##     ria_4            2.389    0.534    4.477    0.000    0.956    0.741
##     ria_5            1.697    0.390    4.351    0.000    0.679    0.480
##     ria_6            2.067    0.447    4.624    0.000    0.827    0.618
##     ria_7            1.796    0.425    4.228    0.000    0.719    0.522
##     ria_8            1.994    0.426    4.680    0.000    0.797    0.651
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .ria_1            1.763    0.141   12.513    0.000    1.763    0.917
##    .ria_2            0.653    0.071    9.134    0.000    0.653    0.523
##    .ria_3            1.789    0.160   11.194    0.000    1.789    0.780
##    .ria_4            0.751    0.101    7.428    0.000    0.751    0.451
##    .ria_5            1.542    0.125   12.348    0.000    1.542    0.770
##    .ria_6            1.105    0.122    9.026    0.000    1.105    0.618
##    .ria_7            1.379    0.164    8.404    0.000    1.379    0.728
##    .ria_8            0.866    0.095    9.075    0.000    0.866    0.577
##     ria              0.160    0.071    2.267    0.023    1.000    1.000
```

Does not show sufficient fit.

EFA 1

Parallel analysis




```
## Parallel analysis suggests that the number of factors =  2  and the number of components =  2
```

Factor analysis

```
##
## Loadings:
##       ML2    ML1
## ria_1         0.466
## ria_2  0.745
## ria_3         0.892
## ria_4  0.687  0.107
## ria_5  0.192  0.498
## ria_6  0.554
## ria_7  0.647 -0.153
## ria_8  0.627
##
##                  ML2   ML1
## SS loadings    2.182 1.308
## Proportion Var 0.273 0.164
## Cumulative Var 0.273 0.436
```

Produces a plausible solution.

CFA 2

```
## lavaan 0.6-3 did NOT end normally after 4490 iterations
## ** WARNING ** Estimates below are most likely unreliable
##
##   Optimization method                           NLMINB
##   Number of free parameters                         24
##
##   Number of observations                           273
##
##   Estimator                                         ML
##   Model Fit Test Statistic                          NA
##   Degrees of freedom                                NA
##   P-value                                           NA
##
## Parameter Estimates:
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate   Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   ria_one =~
##     ria_2      (a)     1.000                               0.804    0.714
##     ria_4      (a)     1.000                               0.804    0.642
##     ria_5              0.536       NA                      0.431    0.305
##     ria_6      (a)     1.000                               0.804    0.595
##     ria_7      (a)     1.000                               0.804    0.585
##     ria_8      (a)     1.000                               0.804    0.646
##   ria_two =~
##     ria_1              1.000                                 NaN      NaN
##     ria_3              0.000       NA                        NaN      NaN
##     ria_5              0.000       NA                        NaN      NaN
##   ria_gen =~
##     ria_1              1.000                               0.005    0.003
##     ria_2             80.676       NA                      0.369    0.328
##     ria_3            403.087       NA                      1.845    1.219
##     ria_4            108.522       NA                      0.497    0.397
##     ria_5            146.971       NA                      0.673    0.475
##     ria_6             88.574       NA                      0.405    0.300
##     ria_7             51.765       NA                      0.237    0.172
##     ria_8             93.436       NA                      0.428    0.344
##
## Covariances:
##                   Estimate   Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   ria_one ~~
##     ria_two           -0.257       NA                     -0.004   -0.004
##     ria_gen           -0.001       NA                     -0.172   -0.172
##   ria_two ~~
##     ria_gen            0.006       NA                      0.015    0.015
##
## Variances:
##                   Estimate   Std.Err  z-value  P(>|z|)   Std.lv  Std.all
```

```
##    .ria_2             0.586       NA                   0.586    0.462
##    .ria_4             0.814       NA                   0.814    0.519
##    .ria_5             1.464       NA                   1.464    0.731
##    .ria_6             1.128       NA                   1.128    0.618
##    .ria_7             1.254       NA                   1.254    0.663
##    .ria_8             0.837       NA                   0.837    0.541
##    .ria_1          7154.260       NA                7154.260 3722.042
##    .ria_3            -1.113       NA                  -1.113   -0.486
##     ria_one           0.646       NA                   1.000    1.000
##     ria_two       -7152.349       NA                     NaN      NaN
##     ria_gen           0.000       NA                   1.000    1.000
```

Does not produce a good-fitting model. Try single-dimension next.

CFA 3

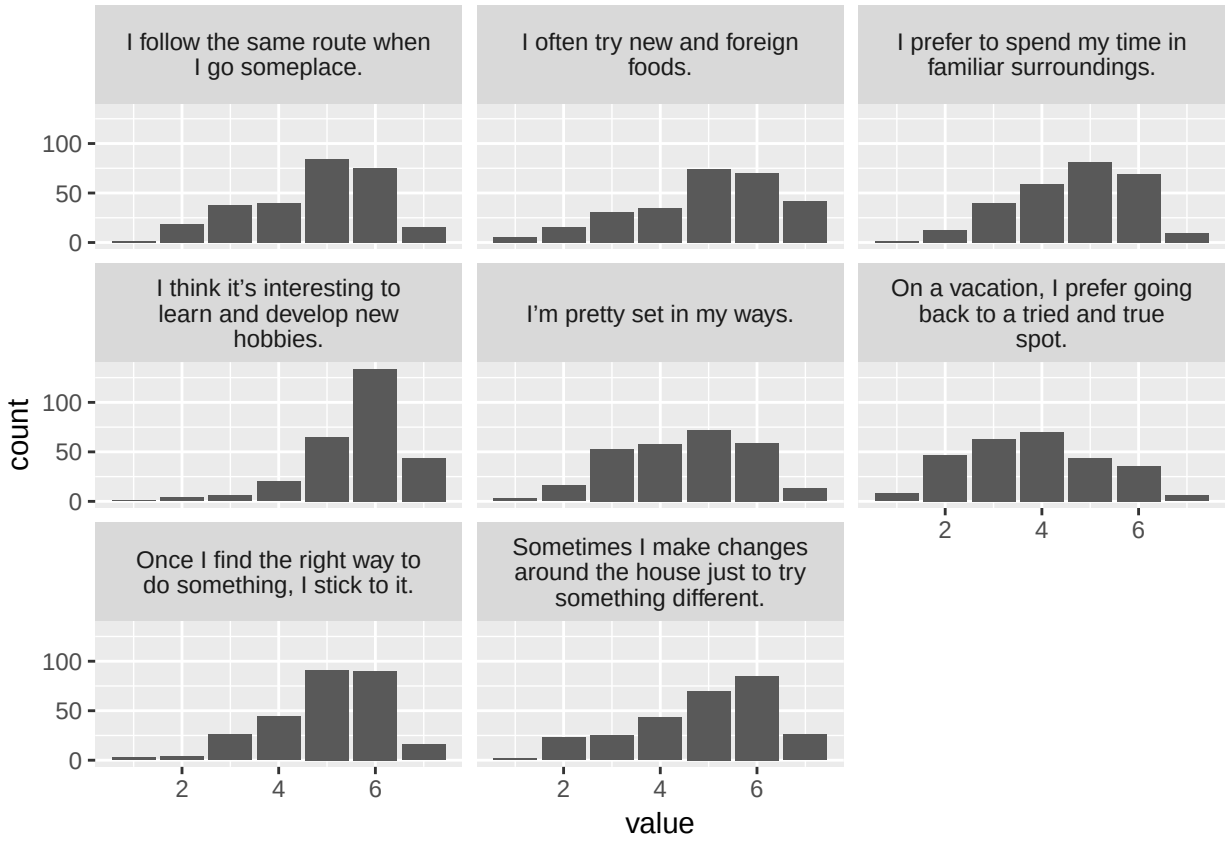
```
## lavaan 0.6-3 ended normally after 24 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         10
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                       6.589       5.268
##   Degrees of freedom                                 5           5
##   P-value (Chi-square)                           0.253       0.384
##   Scaling correction factor                                  1.251
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              360.534     217.930
##   Degrees of freedom                                10          10
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.995       0.999
##   Tucker-Lewis Index (TLI)                       0.991       0.997
##
##   Robust Comparative Fit Index (CFI)                         0.999
##   Robust Tucker-Lewis Index (TLI)                            0.998
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2081.818   -2081.818
##   Loglikelihood unrestricted model (H1)      -2078.523   -2078.523
##
##   Number of free parameters                         10          10
##   Akaike (AIC)                                4183.636    4183.636
##   Bayesian (BIC)                              4219.731    4219.731
##   Sample-size adjusted Bayesian (BIC)         4188.023    4188.023
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.034       0.014
##   90 Percent Confidence Interval          0.000  0.096       0.000  0.080
##   P-value RMSEA <= 0.05                          0.585       0.744
##
##   Robust RMSEA                                               0.016
##   90 Percent Confidence Interval                             0.000  0.096
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.023       0.023
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   ria_gen =~
##     ria_2            1.000                               0.810    0.725
##     ria_4            1.180    0.135    8.752    0.000    0.955    0.740
##     ria_6            0.974    0.123    7.890    0.000    0.789    0.590
##     ria_7            0.963    0.102    9.489    0.000    0.780    0.566
##     ria_8            0.998    0.101    9.918    0.000    0.808    0.660
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .ria_2            0.592    0.079    7.497    0.000    0.592    0.475
##    .ria_4            0.752    0.109    6.924    0.000    0.752    0.452
##    .ria_6            1.167    0.112   10.378    0.000    1.167    0.652
##    .ria_7            1.287    0.166    7.746    0.000    1.287    0.679
##    .ria_8            0.848    0.101    8.415    0.000    0.848    0.565
##     ria_gen          0.655    0.132    4.963    0.000    1.000    1.000
```

Shows an adequate solution.

Traditionalism

Items



CFA 1

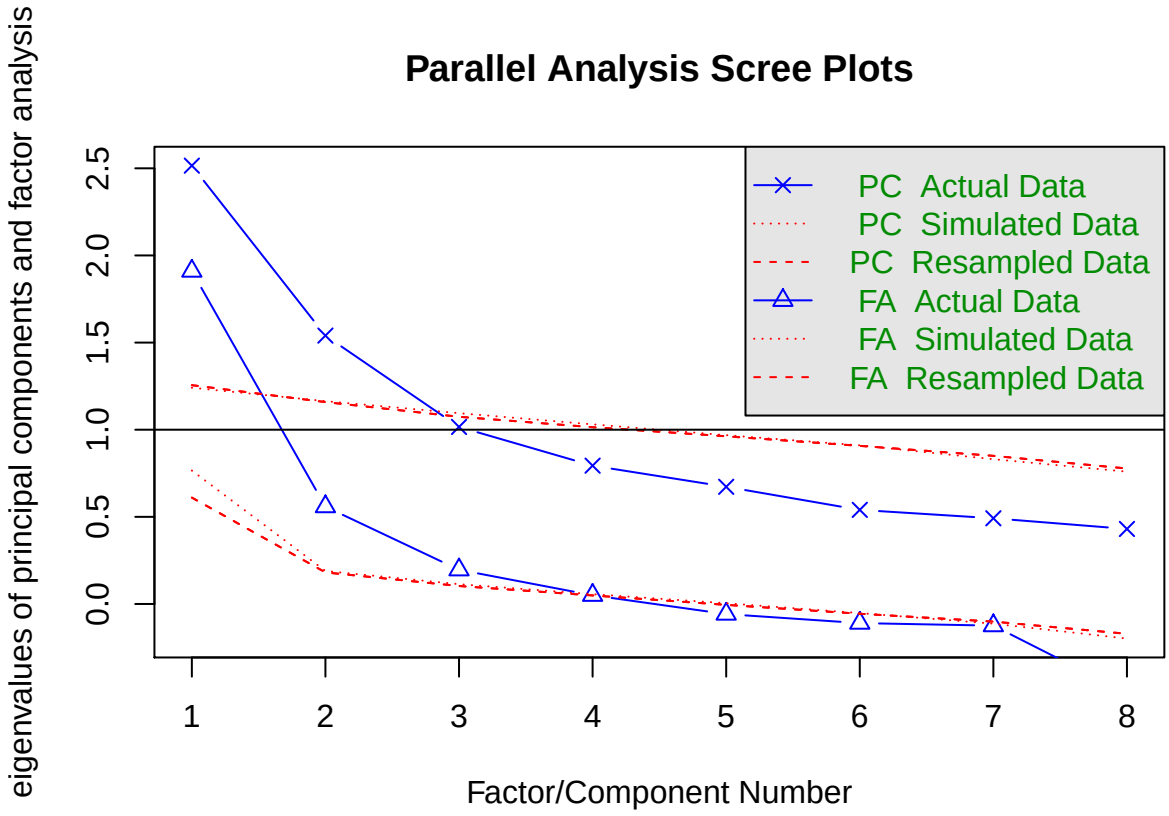
```
## lavaan 0.6-3 ended normally after 27 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         16
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     114.157     103.153
##   Degrees of freedom                                20          20
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.107
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              389.347     325.626
##   Degrees of freedom                                28          28
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.739       0.721
##   Tucker-Lewis Index (TLI)                       0.635       0.609
##
##   Robust Comparative Fit Index (CFI)                         0.741
##   Robust Tucker-Lewis Index (TLI)                            0.638
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -3511.023   -3511.023
##   Loglikelihood unrestricted model (H1)      -3453.944   -3453.944
##
##   Number of free parameters                         16          16
##   Akaike (AIC)                                7054.046    7054.046
##   Bayesian (BIC)                              7111.798    7111.798
##   Sample-size adjusted Bayesian (BIC)         7061.065    7061.065
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.131       0.123
##   90 Percent Confidence Interval          0.108  0.155       0.102  0.146
##   P-value RMSEA <= 0.05                          0.000       0.000
##
##   Robust RMSEA                                               0.130
##   90 Percent Confidence Interval                             0.106  0.155
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.095       0.095
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   tra_gen =~
##     tra_1            1.000                               0.910    0.685
##     tra_2           -0.014    0.090   -0.156    0.876   -0.013   -0.013
##     tra_3            0.791    0.100    7.886    0.000    0.720    0.633
##     tra_4            0.204    0.125    1.625    0.104    0.186    0.124
##     tra_5            0.948    0.109    8.713    0.000    0.863    0.692
##     tra_6            0.071    0.124    0.571    0.568    0.065    0.046
##     tra_7            0.733    0.111    6.585    0.000    0.667    0.470
##     tra_8            0.841    0.117    7.170    0.000    0.766    0.569
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .tra_1            0.938    0.128    7.332    0.000    0.938    0.531
##    .tra_2            0.961    0.111    8.661    0.000    0.961    1.000
##    .tra_3            0.776    0.094    8.268    0.000    0.776    0.599
##    .tra_4            2.207    0.164   13.447    0.000    2.207    0.985
##    .tra_5            0.813    0.113    7.186    0.000    0.813    0.522
##    .tra_6            1.998    0.148   13.473    0.000    1.998    0.998
##    .tra_7            1.570    0.127   12.347    0.000    1.570    0.779
##    .tra_8            1.223    0.136    9.015    0.000    1.223    0.676
##     tra_gen          0.829    0.146    5.680    0.000    1.000    1.000
```

Data show poor fit to the model.

EFA 1

Parallel analysis




```
## Parallel analysis suggests that the number of factors =  3  and the number of components =  2
```

Factor analysis

```
##
## Loadings:
##       ML1    ML3    ML2
## tra_1         0.344  0.408
## tra_2  0.996
## tra_3                0.769
## tra_4  0.218  0.329 -0.193
## tra_5         0.698
## tra_6  0.458 -0.143  0.211
## tra_7         0.566
## tra_8 -0.122  0.317  0.314
##
##                  ML1   ML3   ML2
## SS loadings    1.271 1.155 0.949
## Proportion Var 0.159 0.144 0.119
## Cumulative Var 0.159 0.303 0.422
```

Does not show a convincing solution.

Factor analysis

```
##
## Loadings:
##       ML2    ML1
## tra_1  0.687
## tra_2         0.997
## tra_3  0.635
## tra_4  0.128  0.255
## tra_5  0.690
## tra_6         0.433
## tra_7  0.470
## tra_8  0.573 -0.121
##
##                  ML2   ML1
## SS loadings    1.92 1.277
## Proportion Var 0.24 0.160
## Cumulative Var 0.24 0.399
```

Implies a single dimension, as on factor 2 there is only one significant loading.

CFA 2

```
## lavaan 0.6-3 ended normally after 24 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         10
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                      12.362      10.686
##   Degrees of freedom                                 5           5
##   P-value (Chi-square)                           0.030       0.058
##   Scaling correction factor                                  1.157
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic              283.858     243.214
##   Degrees of freedom                                10          10
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.973       0.976
##   Tucker-Lewis Index (TLI)                       0.946       0.951
##
##   Robust Comparative Fit Index (CFI)                         0.976
##   Robust Tucker-Lewis Index (TLI)                            0.952
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -2151.223   -2151.223
##   Loglikelihood unrestricted model (H1)      -2145.042   -2145.042
##
##   Number of free parameters                         10          10
##   Akaike (AIC)                                4322.447    4322.447
##   Bayesian (BIC)                              4358.541    4358.541
##   Sample-size adjusted Bayesian (BIC)         4326.834    4326.834
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.073       0.065
##   90 Percent Confidence Interval          0.021  0.126       0.005  0.115
##   P-value RMSEA <= 0.05                          0.188       0.266
##
##   Robust RMSEA                                               0.069
##   90 Percent Confidence Interval                                NA  0.128
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.034       0.034
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   tra_gen =~
##     tra_1            1.000                               0.916    0.689
##     tra_3            0.794    0.099    7.993    0.000    0.727    0.639
##     tra_5            0.933    0.107    8.706    0.000    0.854    0.684
##     tra_7            0.725    0.110    6.589    0.000    0.664    0.468
##     tra_8            0.836    0.116    7.174    0.000    0.765    0.569
##
## Variances:
##                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .tra_1            0.928    0.128    7.234    0.000    0.928    0.525
##    .tra_3            0.767    0.093    8.225    0.000    0.767    0.592
##    .tra_5            0.829    0.113    7.350    0.000    0.829    0.532
##    .tra_7            1.574    0.127   12.423    0.000    1.574    0.781
##    .tra_8            1.224    0.136    9.005    0.000    1.224    0.677
##     tra_gen          0.838    0.146    5.729    0.000    1.000    1.000
```

Shows adequate fit.

Results

Structural regression model

In what follows, we present the results of the structural regression model, in which we predict the three dimensions of privacy on the basis of the aforementioned personality facets. The personality facets are modelled as latent factors with single indicators, in which the indicators' error variances are specified using the results from the CFAs.

```
## lavaan 0.6-3 ended normally after 48 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         67
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     242.667     226.975
##   Degrees of freedom                               137         137
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.069
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1409.494    1317.911
##   Degrees of freedom                               187         187
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.914       0.920
##   Tucker-Lewis Index (TLI)                       0.882       0.891
##
##   Robust Comparative Fit Index (CFI)                         0.920
##   Robust Tucker-Lewis Index (TLI)                            0.891
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -6845.604   -6845.604
##   Loglikelihood unrestricted model (H1)      -6724.271   -6724.271
##
##   Number of free parameters                         67          67
##   Akaike (AIC)                               13825.208   13825.208
##   Bayesian (BIC)                             14067.042   14067.042
##   Sample-size adjusted Bayesian (BIC)        13854.602   13854.602
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.053       0.049
##   90 Percent Confidence Interval          0.042  0.064       0.038  0.060
##   P-value RMSEA <= 0.05                          0.307       0.544
##
##   Robust RMSEA                                               0.051
```

```
##   90 Percent Confidence Interval                          0.039  0.062
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.056       0.056
##
## Parameter Estimates:
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               1.077    0.741
##     pri_nee_soc_2     0.979    0.092   10.649    0.000    1.054    0.707
##     pri_nee_soc_3     1.022    0.090   11.405    0.000    1.101    0.765
##     pri_nee_soc_4     1.144    0.088   12.925    0.000    1.232    0.808
##     pri_nee_soc_9     1.017    0.090   11.290    0.000    1.096    0.731
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.923    0.690
##     pri_nee_int_2     0.460    0.153    3.002    0.003    0.425    0.278
##     pri_nee_int_7     0.737    0.121    6.115    0.000    0.680    0.531
##     pri_nee_int_9     0.768    0.121    6.322    0.000    0.708    0.543
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.912    0.599
##     pri_nee_soc_7     1.152    0.147    7.844    0.000    1.050    0.743
##     pri_nee_soc_8     0.929    0.121    7.690    0.000    0.848    0.575
##     pri_nee_int_2     0.656    0.138    4.768    0.000    0.598    0.391
##   soc =~
##     soc_gen           1.000                               0.808    0.887
##   anx =~
##     anx_gen           1.000                               0.679    0.902
##   tra =~
##     tra_gen           1.000                               0.686    0.858
##   ria =~
##     ria_gen           1.000                               0.639    0.881
##   itg =~
##     itg_gen           1.000                               0.620    0.887
##
## Regressions:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gov ~
##     soc              -0.243    0.110   -2.205    0.027   -0.182   -0.182
##     itg              -0.062    0.150   -0.414    0.679   -0.036   -0.036
##     anx              -0.269    0.132   -2.037    0.042   -0.170   -0.170
##     tra               0.162    0.143    1.138    0.255    0.103    0.103
##     ria               0.236    0.161    1.468    0.142    0.140    0.140
##     male              0.344    0.153    2.249    0.025    0.320    0.143
##     age               0.027    0.012    2.217    0.027    0.025    0.067
##     inc               0.044    0.069    0.647    0.518    0.041    0.041
##   pri_nee_int ~
##     soc              -0.380    0.097   -3.922    0.000   -0.333   -0.333
```

```
##     itg               0.037    0.127    0.292    0.770    0.025    0.025
##     anx               0.003    0.111    0.029    0.977    0.002    0.002
##     tra               0.183    0.147    1.239    0.215    0.136    0.136
##     ria               0.399    0.139    2.862    0.004    0.276    0.276
##     male              0.299    0.139    2.153    0.031    0.324    0.145
##     age               0.016    0.012    1.329    0.184    0.017    0.045
##     inc               0.022    0.076    0.286    0.775    0.024    0.024
##   pri_nee_ano ~
##     soc              -0.240    0.094   -2.550    0.011   -0.213   -0.213
##     itg              -0.366    0.137   -2.669    0.008   -0.249   -0.249
##     anx              -0.147    0.113   -1.299    0.194   -0.109   -0.109
##     tra              -0.012    0.133   -0.087    0.931   -0.009   -0.009
##     ria               0.039    0.126    0.312    0.755    0.028    0.028
##     male              0.303    0.145    2.081    0.037    0.332    0.148
##     age               0.034    0.016    2.100    0.036    0.037    0.098
##     inc               0.130    0.073    1.777    0.076    0.143    0.143
##
## Covariances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   soc ~~
##     anx              -0.148    0.043   -3.431    0.001   -0.270   -0.270
##     tra              -0.086    0.043   -1.993    0.046   -0.155   -0.155
##     ria              -0.049    0.047   -1.044    0.297   -0.094   -0.094
##     itg               0.039    0.040    0.968    0.333    0.078    0.078
##   anx ~~
##     tra               0.081    0.039    2.049    0.040    0.174    0.174
##     ria               0.035    0.038    0.923    0.356    0.081    0.081
##     itg              -0.015    0.032   -0.478    0.633   -0.037   -0.037
##   tra ~~
##     ria               0.177    0.039    4.591    0.000    0.404    0.404
##     itg              -0.004    0.036   -0.124    0.902   -0.010   -0.010
##   ria ~~
##     itg               0.118    0.029    4.012    0.000    0.297    0.297
##  .pri_nee_gov ~~
##    .pri_nee_int       0.270    0.081    3.352    0.001    0.345    0.345
##    .pri_nee_ano       0.589    0.103    5.718    0.000    0.702    0.702
##  .pri_nee_int ~~
##    .pri_nee_ano       0.218    0.076    2.870    0.004    0.340    0.340
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_gen           0.177                               0.177    0.213
##    .itg_gen           0.104                               0.104    0.213
##    .anx_gen           0.106                               0.106    0.187
##    .tra_gen           0.169                               0.169    0.264
##    .ria_gen           0.118                               0.118    0.224
##    .pri_nee_soc_1     0.953    0.099    9.594    0.000    0.953    0.451
##    .pri_nee_soc_2     1.112    0.154    7.244    0.000    1.112    0.500
##    .pri_nee_soc_3     0.858    0.119    7.212    0.000    0.858    0.414
##    .pri_nee_soc_4     0.807    0.115    6.997    0.000    0.807    0.347
##    .pri_nee_soc_9     1.046    0.107    9.762    0.000    1.046    0.466
##    .pri_nee_gen_1     0.935    0.141    6.618    0.000    0.935    0.523
##    .pri_nee_int_2     1.622    0.153   10.600    0.000    1.622    0.694
##    .pri_nee_int_7     1.179    0.127    9.295    0.000    1.179    0.718
```

```
##    .pri_nee_int_9     1.201    0.155    7.761    0.000    1.201    0.705
##    .pri_nee_soc_6     1.485    0.172    8.657    0.000    1.485    0.641
##    .pri_nee_soc_7     0.897    0.135    6.670    0.000    0.897    0.449
##    .pri_nee_soc_8     1.456    0.176    8.259    0.000    1.456    0.670
##    .pri_nee_gov       1.023    0.162    6.322    0.000    0.882    0.882
##    .pri_nee_int       0.598    0.142    4.212    0.000    0.702    0.702
##    .pri_nee_ano       0.688    0.158    4.357    0.000    0.827    0.827
##     soc               0.653    0.074    8.851    0.000    1.000    1.000
##     anx               0.461    0.043   10.673    0.000    1.000    1.000
##     tra               0.471    0.052    8.980    0.000    1.000    1.000
##     ria               0.409    0.059    6.972    0.000    1.000    1.000
##     itg               0.384    0.036   10.823    0.000    1.000    1.000
```

Tables

Final items measuring need for privacy

name	content
pri_nee_soc_1	I need government agencies to respect my privacy, even if that hinders a greater societal cause.
pri_nee_soc_2	I need the information that companies (e.g., Amazon, Facebook, or Google) have about me to stay private so that the government can never access it.
pri_nee_soc_3	I don't want the government to gather information about me, even if that makes it more difficult for them to spend tax income efficiently.
pri_nee_soc_4	I don't want government agencies to monitor my personal communication, even if doing so prevents future terrorist attacks.
pri_nee_soc_6	I need to be able to use a fake name on social network sites to preserve my privacy.
pri_nee_soc_7	I feel the need to avoid places with video surveillance.
pri_nee_soc_8	I prefer not to carry my ID with me all the time to preserve my privacy.
pri_nee_soc_9	I feel the need to protect my privacy from government agencies.
pri_nee_int_2	My need for privacy is so strong that it prevents me from using Facebook actively.
pri_nee_int_7	I don't feel the need to tell my friends all my secrets.
pri_nee_int_9	I feel the need to protect my privacy from other people.
pri_nee_gen_1	I prefer it when other people do not know much about me.

Psychometrics

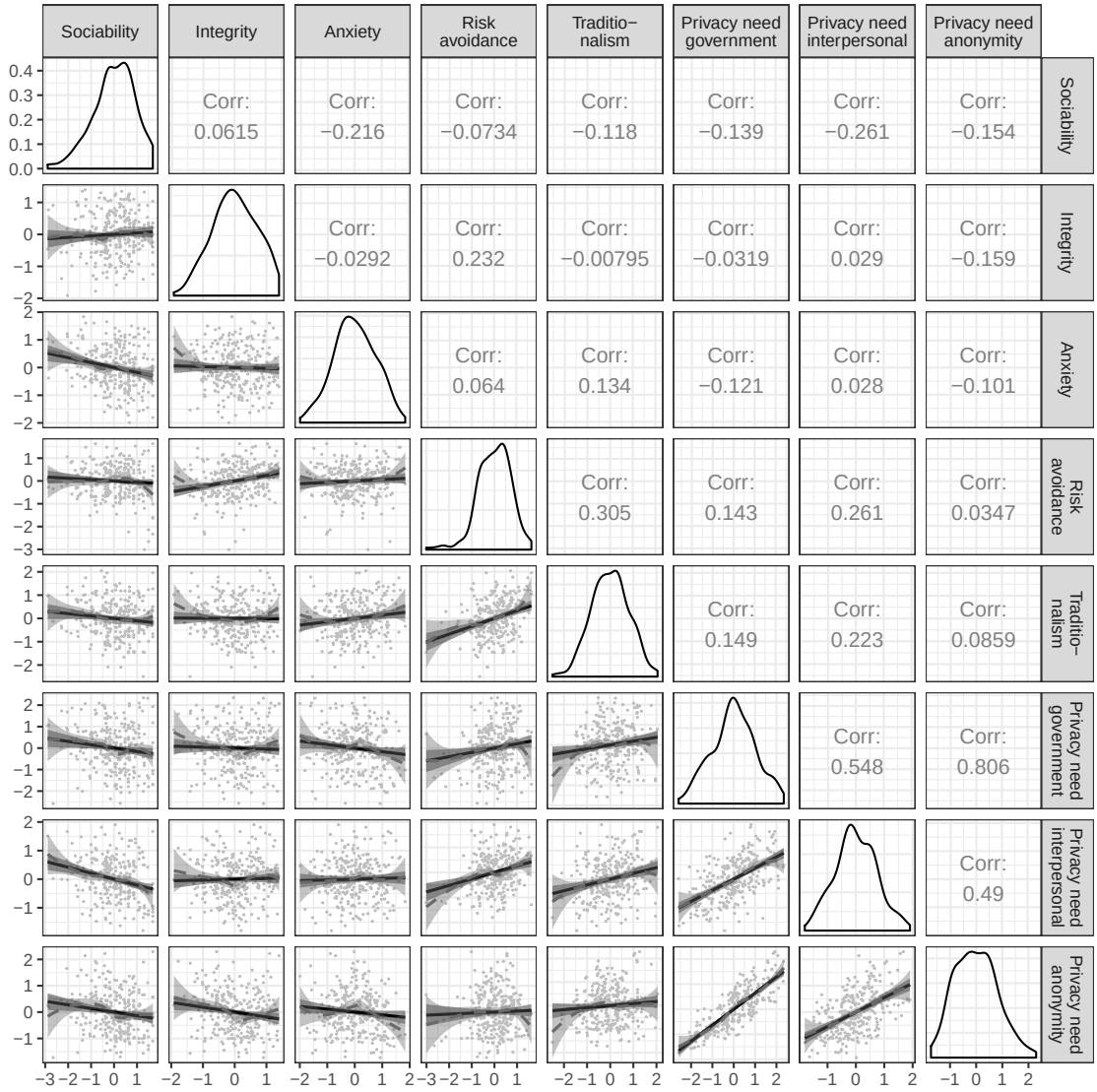
	m	sd	chisq	df	pvalue	cfi	tli	rmsea	srmr	omega	alpha	ave
(Combined)	4.18	1.62	101.72	50	< .001	.94	.92	.06	.06	.85	.88	.46
Government	4.13	1.49	7.26	5	.202	1.00	.99	.04	.02	.87	.87	.57
Interpersonal	4.21	1.59	10.22	2	.006	.93	.78	.12	.04	.62	.62	.30
Anonymity	2.92	1.50	3.16	2	.206	.99	.98	.05	.03	.69	.70	.37
Sociability	4.70	1.50	6.20	2	.045	.98	.94	.09	.03	.79	.79	.49
Integrity	4.56	1.84	47.44	25	.004	.96	.94	.06	.04	.79	.83	.41
Anxiety	4.41	1.53	36.98	18	.005	.96	.93	.06	.04	.80	.82	.42
Risk avoidance	4.30	1.56	5.27	5	.384	1.00	1.00	.01	.02	.79	.79	.43
Traditionality	3.91	1.60	10.69	5	.058	.98	.95	.06	.03	.74	.74	.37

Structural regression model

Outcome	Predictor	b	ll	ul	beta	p
Privacy need government	Sociability	-0.24	-0.46	-0.03	-.18	.027
Privacy need government	Integrity	-0.06	-0.36	0.23	-.04	.679
Privacy need government	Anxiety	-0.27	-0.53	-0.01	-.17	.042
Privacy need government	Traditionalism	0.16	-0.12	0.44	.10	.255
Privacy need government	Risk avoidance	0.24	-0.08	0.55	.14	.142
Privacy need government	Male	0.34	0.04	0.64	.14	.025
Privacy need government	Age	0.03	< 0.01	0.05	.07	.027
Privacy need government	Income	0.04	-0.09	0.18	.04	.518
Privacy need interpersonal	Sociability	-0.38	-0.57	-0.19	-.33	< .001
Privacy need interpersonal	Integrity	0.04	-0.21	0.29	.02	.770
Privacy need interpersonal	Anxiety	< 0.01	-0.21	0.22	< .01	.977
Privacy need interpersonal	Traditionalism	0.18	-0.11	0.47	.14	.215
Privacy need interpersonal	Risk avoidance	0.40	0.13	0.67	.28	.004
Privacy need interpersonal	Male	0.30	0.03	0.57	.14	.031
Privacy need interpersonal	Age	0.02	-0.01	0.04	.04	.184
Privacy need interpersonal	Income	0.02	-0.13	0.17	.02	.775
Privacy need anonymity	Sociability	-0.24	-0.43	-0.06	-.21	.011
Privacy need anonymity	Integrity	-0.37	-0.63	-0.10	-.25	.008
Privacy need anonymity	Anxiety	-0.15	-0.37	0.07	-.11	.194
Privacy need anonymity	Traditionalism	-0.01	-0.27	0.25	-.01	.931
Privacy need anonymity	Risk avoidance	0.04	-0.21	0.29	.03	.755
Privacy need anonymity	Male	0.30	0.02	0.59	.15	.037
Privacy need anonymity	Age	0.03	< 0.01	0.07	.10	.036
Privacy need anonymity	Income	0.13	-0.01	0.27	.14	.076

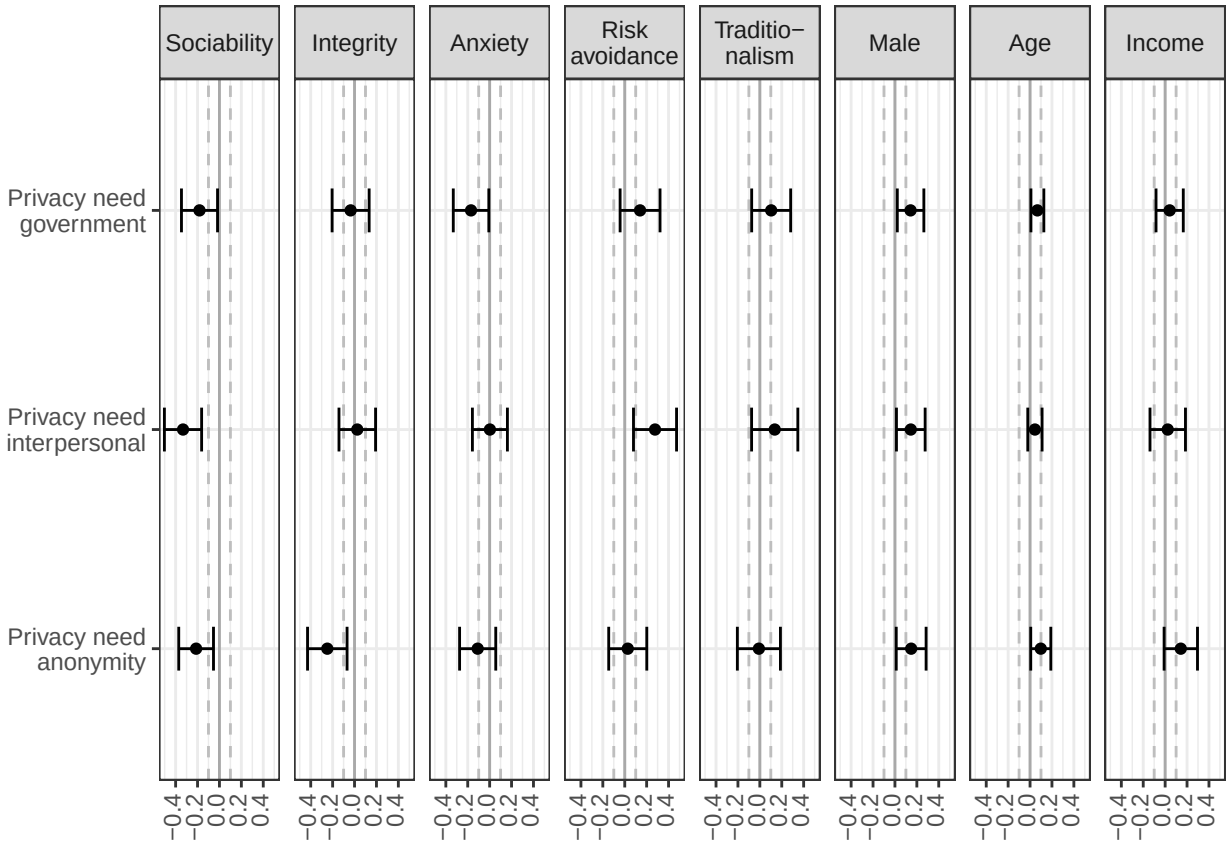
Figures

Bivariate relations

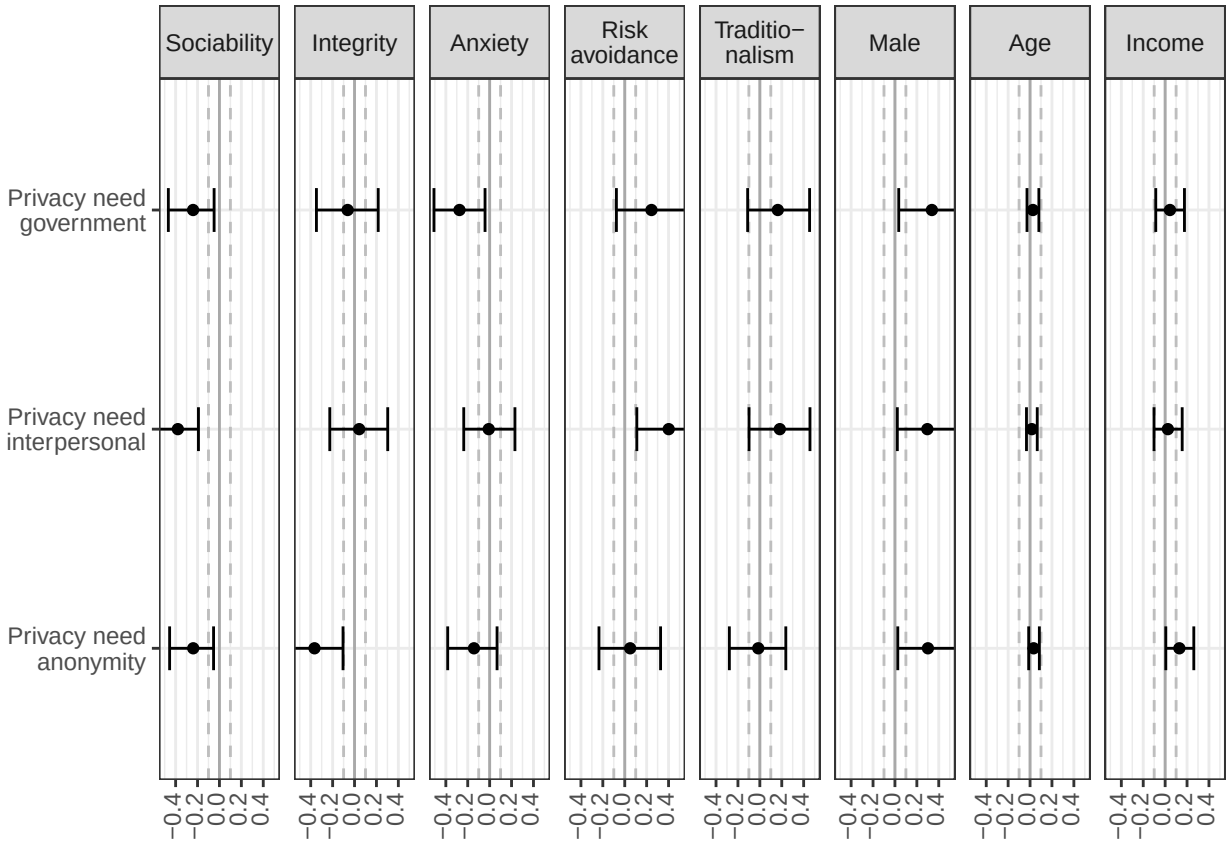


Structural regression model

Confidence intervals estimated using lavaan's standardized solution.



Confidence intervals estimated using Bootstrap approach with 2000 draws. Note that the results differ slightly from the regular approach, which is why in the paper we present the results using lavaan's standardized solution.



Additional analyses

Structural regression model with need for privacy measured as bifactor

Results

```
## lavaan 0.6-3 ended normally after 95 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         84
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                     190.360     177.781
##   Degrees of freedom                               120         120
##   P-value (Chi-square)                           0.000       0.000
##   Scaling correction factor                                  1.071
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1409.494    1317.911
##   Degrees of freedom                               187         187
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.942       0.949
##   Tucker-Lewis Index (TLI)                       0.910       0.920
##
##   Robust Comparative Fit Index (CFI)                         0.949
##   Robust Tucker-Lewis Index (TLI)                            0.920
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -6819.451   -6819.451
##   Loglikelihood unrestricted model (H1)      -6724.271   -6724.271
##
##   Number of free parameters                         84          84
##   Akaike (AIC)                               13806.901   13806.901
##   Bayesian (BIC)                             14110.097   14110.097
##   Sample-size adjusted Bayesian (BIC)        13843.754   13843.754
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.046       0.042
##   90 Percent Confidence Interval          0.033  0.058       0.029  0.054
##   P-value RMSEA <= 0.05                          0.676       0.854
##
##   Robust RMSEA                                               0.043
##   90 Percent Confidence Interval                             0.029  0.056
##
```

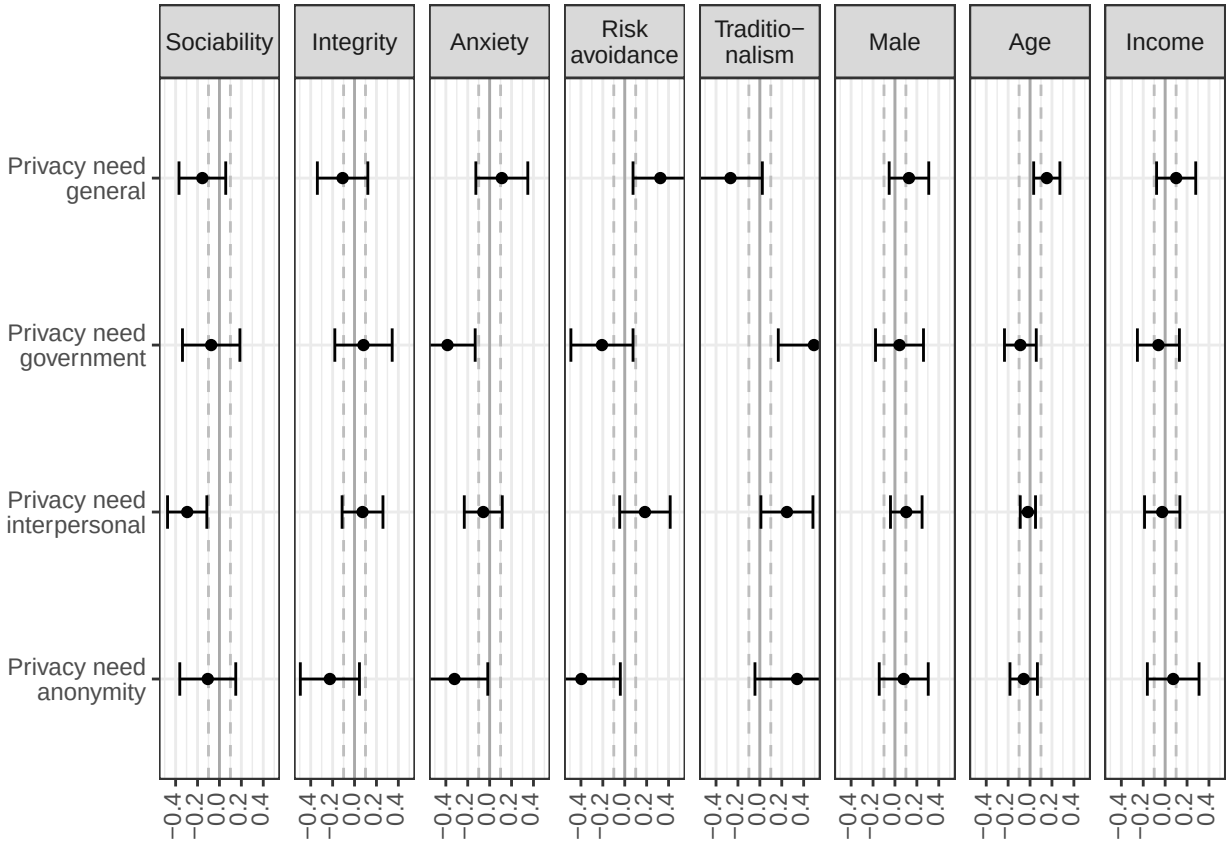
```
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.046       0.046
##
## Parameter Estimates:
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Latent Variables:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen =~
##     pri_nee_soc_1     1.000                               0.846    0.583
##     pri_nee_soc_2     1.110    0.129    8.622    0.000    0.939    0.629
##     pri_nee_soc_3     1.119    0.115    9.750    0.000    0.947    0.658
##     pri_nee_soc_4     1.117    0.110   10.113    0.000    0.945    0.621
##     pri_nee_soc_9     1.299    0.144    9.048    0.000    1.099    0.730
##     pri_nee_gen_1     0.410    0.127    3.241    0.001    0.347    0.260
##     pri_nee_int_2     0.847    0.171    4.947    0.000    0.717    0.468
##     pri_nee_int_7     0.040    0.125    0.319    0.750    0.034    0.026
##     pri_nee_int_9     0.645    0.128    5.027    0.000    0.546    0.418
##     pri_nee_soc_6     1.027    0.180    5.700    0.000    0.869    0.570
##     pri_nee_soc_7     0.993    0.203    4.893    0.000    0.840    0.596
##     pri_nee_soc_8     0.934    0.174    5.361    0.000    0.790    0.535
##   pri_nee_gov =~
##     pri_nee_soc_1     1.000                               0.828    0.570
##     pri_nee_soc_2     0.757    0.149    5.075    0.000    0.627    0.420
##     pri_nee_soc_3     0.864    0.140    6.165    0.000    0.715    0.497
##     pri_nee_soc_4     1.212    0.153    7.930    0.000    1.004    0.660
##     pri_nee_soc_9     0.605    0.156    3.868    0.000    0.501    0.333
##   pri_nee_int =~
##     pri_nee_gen_1     1.000                               0.808    0.605
##     pri_nee_int_2     0.423    0.156    2.718    0.007    0.342    0.223
##     pri_nee_int_7     1.019    0.189    5.397    0.000    0.823    0.643
##     pri_nee_int_9     0.599    0.135    4.432    0.000    0.484    0.371
##   pri_nee_ano =~
##     pri_nee_soc_6     1.000                               0.374    0.245
##     pri_nee_soc_7     2.319    0.922    2.514    0.012    0.868    0.616
##     pri_nee_soc_8     1.174    0.465    2.522    0.012    0.440    0.298
##     pri_nee_int_2     0.856    0.422    2.029    0.042    0.320    0.209
##   soc =~
##     soc_gen           1.000                               0.808    0.887
##   itg =~
##     itg_gen           1.000                               0.620    0.887
##   anx =~
##     anx_gen           1.000                               0.679    0.902
##   ria =~
##     ria_gen           1.000                               0.639    0.881
##   tra =~
##     tra_gen           1.000                               0.686    0.858
##
## Regressions:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
```

```
##   pri_nee_gen ~
##     soc              -0.163    0.115   -1.425    0.154   -0.156   -0.156
##     itg              -0.149    0.163   -0.911    0.362   -0.109   -0.109
##     anx               0.139    0.152    0.914    0.360    0.111    0.111
##     ria               0.430    0.191    2.253    0.024    0.325    0.325
##     tra              -0.330    0.198   -1.669    0.095   -0.268   -0.268
##     male              0.243    0.181    1.344    0.179    0.287    0.128
##     age               0.049    0.021    2.341    0.019    0.058    0.153
##     inc               0.085    0.080    1.071    0.284    0.101    0.101
##   pri_nee_gov ~
##     soc              -0.077    0.138   -0.559    0.576   -0.075   -0.075
##     itg               0.109    0.181    0.604    0.546    0.082    0.082
##     anx              -0.470    0.181   -2.601    0.009   -0.385   -0.385
##     ria              -0.269    0.199   -1.352    0.176   -0.208   -0.208
##     tra               0.596    0.248    2.405    0.016    0.494    0.494
##     male              0.077    0.209    0.371    0.711    0.093    0.042
##     age              -0.028    0.023   -1.216    0.224   -0.033   -0.088
##     inc              -0.051    0.082   -0.621    0.535   -0.061   -0.061
##   pri_nee_int ~
##     soc              -0.294    0.090   -3.264    0.001   -0.294   -0.294
##     itg               0.095    0.125    0.764    0.445    0.073    0.073
##     anx              -0.069    0.106   -0.654    0.513   -0.058   -0.058
##     ria               0.233    0.148    1.571    0.116    0.184    0.184
##     tra               0.291    0.148    1.961    0.050    0.247    0.247
##     male              0.187    0.136    1.381    0.167    0.232    0.103
##     age              -0.006    0.011   -0.557    0.577   -0.008   -0.020
##     inc              -0.022    0.067   -0.325    0.745   -0.027   -0.027
##   pri_nee_ano ~
##     soc              -0.049    0.066   -0.753    0.452   -0.107   -0.107
##     itg              -0.136    0.097   -1.395    0.163   -0.225   -0.225
##     anx              -0.177    0.109   -1.621    0.105   -0.321   -0.321
##     ria              -0.232    0.143   -1.616    0.106   -0.395   -0.395
##     tra               0.186    0.131    1.412    0.158    0.340    0.340
##     male              0.067    0.098    0.684    0.494    0.180    0.080
##     age              -0.008    0.009   -0.876    0.381   -0.022   -0.058
##     inc               0.028    0.047    0.586    0.558    0.074    0.074
##
## Covariances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##  .pri_nee_gen ~~
##    .pri_nee_gov       0.000                              0.000    0.000
##    .pri_nee_int       0.000                              0.000    0.000
##    .pri_nee_ano       0.000                              0.000    0.000
##  .pri_nee_gov ~~
##    .pri_nee_int       0.000                              0.000    0.000
##    .pri_nee_ano       0.000                              0.000    0.000
##  .pri_nee_int ~~
##    .pri_nee_ano       0.000                              0.000    0.000
##   soc ~~
##     itg               0.039    0.040    0.970    0.332    0.078    0.078
##     anx              -0.148    0.043   -3.428    0.001   -0.269   -0.269
##     ria              -0.048    0.047   -1.041    0.298   -0.094   -0.094
##     tra              -0.086    0.043   -1.995    0.046   -0.156   -0.156
##   itg ~~
```

```
##     anx              -0.015    0.032   -0.480    0.632   -0.037   -0.037
##     ria               0.118    0.029    4.009    0.000    0.297    0.297
##     tra              -0.004    0.036   -0.122    0.903   -0.010   -0.010
##   anx ~~
##     ria               0.035    0.038    0.917    0.359    0.080    0.080
##     tra               0.081    0.039    2.052    0.040    0.174    0.174
##   ria ~~
##     tra               0.178    0.039    4.600    0.000    0.405    0.405
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .soc_gen           0.177                               0.177    0.213
##    .itg_gen           0.104                               0.104    0.213
##    .anx_gen           0.106                               0.106    0.187
##    .ria_gen           0.118                               0.118    0.224
##    .tra_gen           0.169                               0.169    0.264
##    .pri_nee_soc_1     0.914    0.107    8.522    0.000    0.914    0.433
##    .pri_nee_soc_2     1.127    0.151    7.481    0.000    1.127    0.506
##    .pri_nee_soc_3     0.864    0.117    7.366    0.000    0.864    0.417
##    .pri_nee_soc_4     0.695    0.127    5.476    0.000    0.695    0.300
##    .pri_nee_soc_9     0.966    0.111    8.700    0.000    0.966    0.427
##    .pri_nee_gen_1     0.973    0.143    6.820    0.000    0.973    0.545
##    .pri_nee_int_2     1.636    0.154   10.594    0.000    1.636    0.698
##    .pri_nee_int_7     0.956    0.146    6.554    0.000    0.956    0.583
##    .pri_nee_int_9     1.139    0.140    8.142    0.000    1.139    0.667
##    .pri_nee_soc_6     1.511    0.164    9.224    0.000    1.511    0.649
##    .pri_nee_soc_7     0.702    0.220    3.188    0.001    0.702    0.354
##    .pri_nee_soc_8     1.445    0.167    8.658    0.000    1.445    0.663
##    .pri_nee_gen       0.572    0.151    3.775    0.000    0.799    0.799
##    .pri_nee_gov       0.475    0.152    3.118    0.002    0.692    0.692
##    .pri_nee_int       0.484    0.127    3.802    0.000    0.740    0.740
##    .pri_nee_ano       0.090    0.069    1.302    0.193    0.639    0.639
##     soc               0.653    0.074    8.853    0.000    1.000    1.000
##     itg               0.384    0.036   10.823    0.000    1.000    1.000
##     anx               0.461    0.043   10.671    0.000    1.000    1.000
##     ria               0.408    0.059    6.964    0.000    1.000    1.000
##     tra               0.471    0.052    8.992    0.000    1.000    1.000
##
## R-Square:
##                    Estimate
##     soc_gen           0.787
##     itg_gen           0.787
##     anx_gen           0.813
##     ria_gen           0.776
##     tra_gen           0.736
##     pri_nee_soc_1     0.567
##     pri_nee_soc_2     0.494
##     pri_nee_soc_3     0.583
##     pri_nee_soc_4     0.700
##     pri_nee_soc_9     0.573
##     pri_nee_gen_1     0.455
##     pri_nee_int_2     0.302
##     pri_nee_int_7     0.417
##     pri_nee_int_9     0.333
```

```
##     pri_nee_soc_6     0.351
##     pri_nee_soc_7     0.646
##     pri_nee_soc_8     0.337
##     pri_nee_gen       0.201
##     pri_nee_gov       0.308
##     pri_nee_int       0.260
##     pri_nee_ano       0.361
```

Visualization



Structural regression model with individual items

```
## lavaan 0.6-3 ended normally after 121 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                        465
##
##   Number of observations                           273
##
##   Estimator                                         ML      Robust
##   Model Fit Test Statistic                       0.000       0.000
##   Degrees of freedom                                 0           0
##   Minimum Function Value               0.0000000000000
##   Scaling correction factor                                     NA
##     for the Satorra-Bentler correction
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             2449.509    2142.747
##   Degrees of freedom                               435         435
##   P-value                                        0.000       0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    1.000       1.000
##   Tucker-Lewis Index (TLI)                       1.000       1.000
##
##   Robust Comparative Fit Index (CFI)                            NA
##   Robust Tucker-Lewis Index (TLI)                               NA
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -12098.427  -12098.427
##   Loglikelihood unrestricted model (H1)      -12098.427  -12098.427
##
##   Number of free parameters                        465         465
##   Akaike (AIC)                                 25126.855   25126.855
##   Bayesian (BIC)                               26805.259   26805.259
##   Sample-size adjusted Bayesian (BIC)          25330.858   25330.858
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.000       0.000
##   90 Percent Confidence Interval          0.000  0.000       0.000  0.000
##   P-value RMSEA <= 0.05                             NA          NA
##
##   Robust RMSEA                                                  0.000
##   90 Percent Confidence Interval                                0.000  0.000
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.000       0.000
##
## Parameter Estimates:
```

```
##
##   Information                                 Expected
##   Information saturated (h1) model          Structured
##   Standard Errors                           Robust.sem
##
## Regressions:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_gen_1 ~
##     itg_gen          -0.081    0.116   -0.701    0.483   -0.081   -0.042
##     soc_gen          -0.356    0.086   -4.127    0.000   -0.356   -0.243
##     anx_gen          -0.029    0.106   -0.278    0.781   -0.029   -0.017
##     tra_gen           0.224    0.114    1.957    0.050    0.224    0.134
##     ria_gen           0.302    0.113    2.663    0.008    0.302    0.164
##     male              0.266    0.171    1.557    0.120    0.266    0.089
##     age               0.003    0.015    0.218    0.828    0.003    0.007
##     inc               0.106    0.079    1.339    0.181    0.106    0.080
##   pri_nee_gen_2 ~
##     itg_gen           0.005    0.125    0.038    0.969    0.005    0.002
##     soc_gen          -0.310    0.092   -3.357    0.001   -0.310   -0.204
##     anx_gen           0.055    0.122    0.455    0.649    0.055    0.030
##     tra_gen           0.151    0.126    1.197    0.231    0.151    0.087
##     ria_gen           0.136    0.115    1.177    0.239    0.136    0.071
##     male              0.605    0.196    3.085    0.002    0.605    0.195
##     age               0.025    0.017    1.424    0.154    0.025    0.048
##     inc              -0.072    0.087   -0.827    0.408   -0.072   -0.052
##   pri_nee_gen_3 ~
##     itg_gen           0.388    0.099    3.931    0.000    0.388    0.240
##     soc_gen           0.061    0.077    0.801    0.423    0.061    0.050
##     anx_gen           0.120    0.093    1.286    0.198    0.120    0.080
##     tra_gen           0.127    0.095    1.328    0.184    0.127    0.090
##     ria_gen           0.186    0.097    1.919    0.055    0.186    0.120
##     male              0.086    0.150    0.573    0.567    0.086    0.034
##     age               0.022    0.020    1.068    0.285    0.022    0.051
##     inc              -0.119    0.079   -1.493    0.135   -0.119   -0.105
##   pri_nee_gen_4 ~
##     itg_gen           0.173    0.082    2.102    0.036    0.173    0.115
##     soc_gen           0.162    0.080    2.030    0.042    0.162    0.141
##     anx_gen           0.136    0.077    1.769    0.077    0.136    0.097
##     tra_gen           0.236    0.084    2.796    0.005    0.236    0.180
##     ria_gen           0.199    0.087    2.302    0.021    0.199    0.137
##     male              0.122    0.141    0.868    0.386    0.122    0.052
##     age              -0.014    0.014   -0.966    0.334   -0.014   -0.035
##     inc              -0.060    0.067   -0.895    0.371   -0.060   -0.057
##   pri_nee_soc_1 ~
##     itg_gen           0.003    0.132    0.023    0.982    0.003    0.001
##     soc_gen          -0.161    0.103   -1.570    0.116   -0.161   -0.101
##     anx_gen          -0.230    0.138   -1.671    0.095   -0.230   -0.119
##     tra_gen           0.187    0.128    1.460    0.144    0.187    0.102
##     ria_gen           0.195    0.122    1.595    0.111    0.195    0.097
##     male              0.200    0.201    0.992    0.321    0.200    0.061
##     age               0.021    0.020    1.041    0.298    0.021    0.038
##     inc               0.020    0.084    0.241    0.809    0.020    0.014
##   pri_nee_soc_2 ~
##     itg_gen           0.017    0.139    0.121    0.904    0.017    0.008
```

```
##     soc_gen          -0.112    0.102   -1.097    0.273   -0.112   -0.068
##     anx_gen          -0.022    0.144   -0.155    0.877   -0.022   -0.011
##     tra_gen           0.214    0.117    1.826    0.068    0.214    0.114
##     ria_gen           0.208    0.143    1.453    0.146    0.208    0.101
##     male              0.461    0.196    2.349    0.019    0.461    0.137
##     age               0.012    0.023    0.518    0.604    0.012    0.021
##     inc               0.039    0.092    0.420    0.674    0.039    0.026
##   pri_nee_soc_3 ~
##     itg_gen          -0.030    0.135   -0.223    0.824   -0.030   -0.015
##     soc_gen          -0.277    0.101   -2.751    0.006   -0.277   -0.174
##     anx_gen          -0.240    0.128   -1.872    0.061   -0.240   -0.125
##     tra_gen           0.205    0.124    1.661    0.097    0.205    0.114
##     ria_gen           0.136    0.134    1.015    0.310    0.136    0.068
##     male              0.384    0.188    2.037    0.042    0.384    0.118
##     age               0.034    0.017    2.045    0.041    0.034    0.062
##     inc               0.048    0.094    0.513    0.608    0.048    0.033
##   pri_nee_soc_4 ~
##     itg_gen          -0.066    0.143   -0.458    0.647   -0.066   -0.030
##     soc_gen          -0.207    0.111   -1.869    0.062   -0.207   -0.123
##     anx_gen          -0.271    0.137   -1.972    0.049   -0.271   -0.133
##     tra_gen           0.210    0.130    1.613    0.107    0.210    0.110
##     ria_gen           0.147    0.135    1.093    0.275    0.147    0.070
##     male              0.347    0.210    1.652    0.099    0.347    0.101
##     age               0.030    0.015    1.980    0.048    0.030    0.051
##     inc               0.059    0.096    0.619    0.536    0.059    0.039
##   pri_nee_soc_5 ~
##     itg_gen           0.012    0.138    0.085    0.932    0.012    0.005
##     soc_gen          -0.143    0.110   -1.291    0.197   -0.143   -0.082
##     anx_gen          -0.158    0.144   -1.101    0.271   -0.158   -0.075
##     tra_gen           0.111    0.133    0.834    0.404    0.111    0.056
##     ria_gen           0.135    0.162    0.838    0.402    0.135    0.062
##     male              0.545    0.230    2.367    0.018    0.545    0.154
##     age               0.045    0.023    1.994    0.046    0.045    0.076
##     inc              -0.051    0.092   -0.555    0.579   -0.051   -0.032
##   pri_nee_soc_6 ~
##     itg_gen          -0.250    0.140   -1.782    0.075   -0.250   -0.114
##     soc_gen          -0.132    0.107   -1.226    0.220   -0.132   -0.079
##     anx_gen          -0.011    0.134   -0.084    0.933   -0.011   -0.006
##     tra_gen           0.017    0.126    0.137    0.891    0.017    0.009
##     ria_gen           0.055    0.132    0.420    0.675    0.055    0.026
##     male              0.099    0.203    0.485    0.627    0.099    0.029
##     age               0.048    0.021    2.245    0.025    0.048    0.082
##     inc               0.159    0.108    1.470    0.142    0.159    0.104
##   pri_nee_soc_7 ~
##     itg_gen          -0.359    0.127   -2.835    0.005   -0.359   -0.177
##     soc_gen          -0.193    0.089   -2.177    0.029   -0.193   -0.124
##     anx_gen          -0.198    0.129   -1.537    0.124   -0.198   -0.105
##     tra_gen           0.057    0.112    0.509    0.611    0.057    0.032
##     ria_gen          -0.086    0.114   -0.756    0.450   -0.086   -0.044
##     male              0.445    0.209    2.128    0.033    0.445    0.140
##     age               0.028    0.017    1.621    0.105    0.028    0.053
##     inc               0.140    0.090    1.561    0.119    0.140    0.099
##   pri_nee_soc_8 ~
##     itg_gen          -0.326    0.129   -2.522    0.012   -0.326   -0.154
```

```
##     soc_gen          -0.291    0.103   -2.829    0.005   -0.291   -0.180
##     anx_gen          -0.060    0.119   -0.503    0.615   -0.060   -0.030
##     tra_gen          -0.020    0.125   -0.158    0.874   -0.020   -0.011
##     ria_gen           0.217    0.113    1.920    0.055    0.217    0.106
##     male              0.104    0.197    0.528    0.598    0.104    0.031
##     age               0.047    0.019    2.449    0.014    0.047    0.084
##     inc               0.161    0.096    1.665    0.096    0.161    0.109
##   pri_nee_soc_9 ~
##     itg_gen          -0.123    0.138   -0.897    0.370   -0.123   -0.057
##     soc_gen          -0.175    0.110   -1.588    0.112   -0.175   -0.106
##     anx_gen          -0.199    0.151   -1.313    0.189   -0.199   -0.100
##     tra_gen          -0.179    0.130   -1.378    0.168   -0.179   -0.095
##     ria_gen           0.336    0.139    2.409    0.016    0.336    0.162
##     male              0.424    0.218    1.951    0.051    0.424    0.126
##     age               0.043    0.019    2.258    0.024    0.043    0.076
##     inc               0.060    0.091    0.664    0.507    0.060    0.040
##   pri_nee_int_1 ~
##     itg_gen           0.206    0.136    1.516    0.129    0.206    0.099
##     soc_gen          -0.049    0.103   -0.480    0.631   -0.049   -0.031
##     anx_gen          -0.205    0.130   -1.584    0.113   -0.205   -0.106
##     tra_gen          -0.032    0.122   -0.259    0.795   -0.032   -0.017
##     ria_gen           0.295    0.132    2.232    0.026    0.295    0.147
##     male             -0.189    0.212   -0.893    0.372   -0.189   -0.058
##     age              -0.042    0.027   -1.538    0.124   -0.042   -0.075
##     inc              -0.069    0.094   -0.736    0.462   -0.069   -0.047
##   pri_nee_int_2 ~
##     itg_gen          -0.023    0.143   -0.162    0.871   -0.023   -0.011
##     soc_gen          -0.227    0.100   -2.269    0.023   -0.227   -0.135
##     anx_gen          -0.010    0.139   -0.070    0.944   -0.010   -0.005
##     tra_gen          -0.087    0.128   -0.684    0.494   -0.087   -0.046
##     ria_gen           0.058    0.128    0.458    0.647    0.058    0.028
##     male              0.651    0.212    3.069    0.002    0.651    0.190
##     age               0.017    0.028    0.596    0.551    0.017    0.029
##     inc               0.018    0.090    0.199    0.843    0.018    0.012
##   pri_nee_int_3 ~
##     itg_gen           0.207    0.121    1.718    0.086    0.207    0.100
##     soc_gen          -0.164    0.097   -1.692    0.091   -0.164   -0.103
##     anx_gen          -0.158    0.120   -1.312    0.189   -0.158   -0.082
##     tra_gen           0.223    0.119    1.883    0.060    0.223    0.123
##     ria_gen           0.374    0.125    3.005    0.003    0.374    0.187
##     male             -0.037    0.185   -0.200    0.841   -0.037   -0.011
##     age               0.024    0.017    1.392    0.164    0.024    0.043
##     inc              -0.027    0.095   -0.286    0.775   -0.027   -0.019
##   pri_nee_int_4 ~
##     itg_gen          -0.193    0.113   -1.715    0.086   -0.193   -0.101
##     soc_gen           0.052    0.079    0.657    0.511    0.052    0.036
##     anx_gen           0.287    0.110    2.603    0.009    0.287    0.162
##     tra_gen           0.277    0.114    2.438    0.015    0.277    0.167
##     ria_gen           0.176    0.109    1.622    0.105    0.176    0.096
##     male             -0.215    0.170   -1.261    0.207   -0.215   -0.072
##     age               0.032    0.037    0.865    0.387    0.032    0.063
##     inc               0.180    0.066    2.721    0.007    0.180    0.135
##   pri_nee_int_5 ~
##     itg_gen           0.155    0.130    1.196    0.232    0.155    0.075
```

```
##     soc_gen          -0.200    0.095   -2.098    0.036   -0.200   -0.126
##     anx_gen          -0.142    0.141   -1.005    0.315   -0.142   -0.074
##     tra_gen          -0.234    0.124   -1.886    0.059   -0.234   -0.130
##     ria_gen          -0.081    0.141   -0.577    0.564   -0.081   -0.041
##     male              0.661    0.204    3.240    0.001    0.661    0.204
##     age              -0.001    0.019   -0.062    0.950   -0.001   -0.002
##     inc              -0.143    0.080   -1.798    0.072   -0.143   -0.099
##   pri_nee_int_6 ~
##     itg_gen          -0.070    0.116   -0.603    0.546   -0.070   -0.037
##     soc_gen          -0.281    0.093   -3.018    0.003   -0.281   -0.195
##     anx_gen           0.156    0.118    1.331    0.183    0.156    0.090
##     tra_gen           0.084    0.107    0.779    0.436    0.084    0.051
##     ria_gen          -0.063    0.128   -0.491    0.623   -0.063   -0.035
##     male              0.664    0.177    3.744    0.000    0.664    0.226
##     age               0.032    0.028    1.136    0.256    0.032    0.065
##     inc               0.102    0.075    1.357    0.175    0.102    0.078
##   pri_nee_int_7 ~
##     itg_gen           0.105    0.107    0.976    0.329    0.105    0.057
##     soc_gen          -0.210    0.085   -2.461    0.014   -0.210   -0.149
##     anx_gen          -0.076    0.113   -0.673    0.501   -0.076   -0.045
##     tra_gen           0.187    0.118    1.583    0.113    0.187    0.117
##     ria_gen           0.261    0.116    2.259    0.024    0.261    0.148
##     male              0.172    0.173    0.991    0.322    0.172    0.060
##     age              -0.002    0.014   -0.140    0.888   -0.002   -0.004
##     inc              -0.071    0.087   -0.817    0.414   -0.071   -0.056
##   pri_nee_int_8 ~
##     itg_gen           0.237    0.135    1.748    0.080    0.237    0.116
##     soc_gen          -0.101    0.093   -1.082    0.279   -0.101   -0.064
##     anx_gen          -0.082    0.128   -0.642    0.521   -0.082   -0.043
##     tra_gen           0.177    0.125    1.414    0.157    0.177    0.099
##     ria_gen           0.116    0.134    0.871    0.384    0.116    0.059
##     male             -0.295    0.205   -1.441    0.150   -0.295   -0.092
##     age              -0.041    0.020   -2.033    0.042   -0.041   -0.075
##     inc              -0.074    0.089   -0.836    0.403   -0.074   -0.052
##   pri_nee_int_9 ~
##     itg_gen           0.104    0.110    0.951    0.341    0.104    0.056
##     soc_gen          -0.164    0.084   -1.965    0.049   -0.164   -0.115
##     anx_gen           0.202    0.120    1.691    0.091    0.202    0.117
##     tra_gen           0.032    0.113    0.285    0.776    0.032    0.020
##     ria_gen           0.294    0.120    2.443    0.015    0.294    0.164
##     male              0.193    0.177    1.091    0.275    0.193    0.066
##     age               0.051    0.020    2.558    0.011    0.051    0.104
##     inc              -0.005    0.084   -0.056    0.955   -0.005   -0.004
##
## Covariances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   itg_gen ~~
##     soc_gen           0.039    0.040    0.967    0.333    0.039    0.062
##     anx_gen          -0.015    0.032   -0.478    0.633   -0.015   -0.029
##     tra_gen          -0.004    0.036   -0.124    0.902   -0.004   -0.008
##     ria_gen           0.118    0.029    4.012    0.000    0.118    0.232
##     male             -0.022    0.020   -1.136    0.256   -0.022   -0.072
##     age              -0.013    0.199   -0.067    0.947   -0.013   -0.007
##     inc              -0.007    0.043   -0.163    0.870   -0.007   -0.010
```

```
##   soc_gen ~~
##     anx_gen          -0.148    0.043   -3.428    0.001   -0.148   -0.216
##     tra_gen          -0.086    0.043   -1.987    0.047   -0.086   -0.118
##     ria_gen          -0.049    0.047   -1.043    0.297   -0.049   -0.073
##     male              0.044    0.024    1.851    0.064    0.044    0.108
##     age              -0.058    0.128   -0.453    0.650   -0.058   -0.024
##     inc               0.078    0.054    1.462    0.144    0.078    0.086
##   anx_gen ~~
##     tra_gen           0.081    0.039    2.052    0.040    0.081    0.134
##     ria_gen           0.035    0.038    0.923    0.356    0.035    0.064
##     male             -0.104    0.020   -5.149    0.000   -0.104   -0.309
##     age              -0.208    0.073   -2.862    0.004   -0.208   -0.105
##     inc              -0.050    0.043   -1.157    0.247   -0.050   -0.067
##   tra_gen ~~
##     ria_gen           0.177    0.039    4.586    0.000    0.177    0.305
##     male              0.035    0.023    1.541    0.123    0.035    0.098
##     age               0.116    0.166    0.696    0.486    0.116    0.055
##     inc               0.064    0.046    1.385    0.166    0.064    0.080
##   ria_gen ~~
##     male              0.004    0.020    0.208    0.835    0.004    0.013
##     age               0.068    0.109    0.627    0.531    0.068    0.036
##     inc              -0.029    0.039   -0.760    0.447   -0.029   -0.041
##   male ~~
##     age               0.212    0.105    2.009    0.045    0.212    0.180
##     inc               0.025    0.028    0.915    0.360    0.025    0.056
##   age ~~
##     inc               0.362    0.313    1.158    0.247    0.362    0.137
##  .pri_nee_gen_1 ~~
##    .pri_nee_gen_2     0.710    0.116    6.127    0.000    0.710    0.440
##    .pri_nee_gen_3     0.418    0.087    4.793    0.000    0.418    0.319
##    .pri_nee_gen_4     0.450    0.079    5.701    0.000    0.450    0.367
##    .pri_nee_soc_1     0.271    0.116    2.338    0.019    0.271    0.155
##    .pri_nee_soc_2     0.334    0.117    2.866    0.004    0.334    0.186
##    .pri_nee_soc_3     0.252    0.113    2.232    0.026    0.252    0.148
##    .pri_nee_soc_4     0.228    0.119    1.911    0.056    0.228    0.125
##    .pri_nee_soc_5     0.173    0.117    1.481    0.139    0.173    0.091
##    .pri_nee_soc_6     0.334    0.120    2.783    0.005    0.334    0.181
##    .pri_nee_soc_7     0.285    0.099    2.892    0.004    0.285    0.172
##    .pri_nee_soc_8     0.251    0.113    2.222    0.026    0.251    0.143
##    .pri_nee_soc_9     0.209    0.116    1.804    0.071    0.209    0.117
##    .pri_nee_int_1     0.100    0.105    0.959    0.337    0.100    0.057
##    .pri_nee_int_2     0.580    0.127    4.565    0.000    0.580    0.315
##    .pri_nee_int_3     0.305    0.110    2.775    0.006    0.305    0.179
##    .pri_nee_int_4     0.267    0.096    2.776    0.006    0.267    0.172
##    .pri_nee_int_5     0.321    0.104    3.077    0.002    0.321    0.189
##    .pri_nee_int_6     0.449    0.101    4.450    0.000    0.449    0.294
##    .pri_nee_int_7     0.528    0.099    5.315    0.000    0.528    0.349
##    .pri_nee_int_8     0.019    0.106    0.180    0.857    0.019    0.011
##    .pri_nee_int_9     0.390    0.101    3.864    0.000    0.390    0.253
##  .pri_nee_gen_2 ~~
##    .pri_nee_gen_3     0.460    0.087    5.264    0.000    0.460    0.333
##    .pri_nee_gen_4     0.267    0.080    3.344    0.001    0.267    0.206
##    .pri_nee_soc_1     0.198    0.119    1.670    0.095    0.198    0.107
##    .pri_nee_soc_2     0.481    0.120    3.992    0.000    0.481    0.254
```

```
##    .pri_nee_soc_3     0.169    0.120    1.413    0.158    0.169    0.094
##    .pri_nee_soc_4     0.187    0.128    1.460    0.144    0.187    0.097
##    .pri_nee_soc_5     0.289    0.127    2.281    0.023    0.289    0.145
##    .pri_nee_soc_6     0.175    0.122    1.434    0.152    0.175    0.090
##    .pri_nee_soc_7     0.183    0.107    1.715    0.086    0.183    0.105
##    .pri_nee_soc_8     0.253    0.133    1.907    0.056    0.253    0.137
##    .pri_nee_soc_9     0.244    0.125    1.953    0.051    0.244    0.129
##    .pri_nee_int_1     0.026    0.112    0.228    0.819    0.026    0.014
##    .pri_nee_int_2     0.317    0.128    2.477    0.013    0.317    0.163
##    .pri_nee_int_3     0.160    0.118    1.357    0.175    0.160    0.089
##    .pri_nee_int_4     0.204    0.097    2.107    0.035    0.204    0.125
##    .pri_nee_int_5     0.238    0.107    2.222    0.026    0.238    0.132
##    .pri_nee_int_6     0.139    0.110    1.261    0.207    0.139    0.086
##    .pri_nee_int_7     0.138    0.099    1.400    0.162    0.138    0.087
##    .pri_nee_int_8     0.085    0.121    0.704    0.482    0.085    0.047
##    .pri_nee_int_9     0.217    0.106    2.047    0.041    0.217    0.134
##  .pri_nee_gen_3 ~~
##    .pri_nee_gen_4     0.368    0.067    5.468    0.000    0.368    0.352
##    .pri_nee_soc_1     0.072    0.097    0.746    0.456    0.072    0.048
##    .pri_nee_soc_2     0.331    0.098    3.360    0.001    0.331    0.216
##    .pri_nee_soc_3     0.261    0.093    2.805    0.005    0.261    0.179
##    .pri_nee_soc_4     0.083    0.100    0.831    0.406    0.083    0.053
##    .pri_nee_soc_5     0.061    0.097    0.634    0.526    0.061    0.038
##    .pri_nee_soc_6     0.075    0.099    0.752    0.452    0.075    0.047
##    .pri_nee_soc_7    -0.016    0.090   -0.175    0.861   -0.016   -0.011
##    .pri_nee_soc_8     0.053    0.096    0.548    0.583    0.053    0.035
##    .pri_nee_soc_9     0.165    0.090    1.835    0.066    0.165    0.108
##    .pri_nee_int_1     0.229    0.095    2.405    0.016    0.229    0.152
##    .pri_nee_int_2     0.216    0.099    2.183    0.029    0.216    0.137
##    .pri_nee_int_3     0.354    0.092    3.859    0.000    0.354    0.243
##    .pri_nee_int_4     0.329    0.082    3.996    0.000    0.329    0.248
##    .pri_nee_int_5     0.028    0.099    0.281    0.779    0.028    0.019
##    .pri_nee_int_6    -0.070    0.078   -0.902    0.367   -0.070   -0.054
##    .pri_nee_int_7     0.230    0.090    2.542    0.011    0.230    0.178
##    .pri_nee_int_8     0.052    0.088    0.589    0.556    0.052    0.035
##    .pri_nee_int_9     0.482    0.087    5.510    0.000    0.482    0.365
##  .pri_nee_gen_4 ~~
##    .pri_nee_soc_1    -0.003    0.079   -0.037    0.970   -0.003   -0.002
##    .pri_nee_soc_2    -0.018    0.087   -0.211    0.833   -0.018   -0.013
##    .pri_nee_soc_3     0.092    0.089    1.035    0.301    0.092    0.067
##    .pri_nee_soc_4    -0.003    0.086   -0.032    0.975   -0.003   -0.002
##    .pri_nee_soc_5     0.012    0.088    0.140    0.889    0.012    0.008
##    .pri_nee_soc_6    -0.187    0.082   -2.273    0.023   -0.187   -0.127
##    .pri_nee_soc_7    -0.245    0.079   -3.112    0.002   -0.245   -0.185
##    .pri_nee_soc_8    -0.179    0.086   -2.069    0.039   -0.179   -0.128
##    .pri_nee_soc_9     0.005    0.088    0.056    0.955    0.005    0.003
##    .pri_nee_int_1     0.237    0.081    2.942    0.003    0.237    0.169
##    .pri_nee_int_2     0.017    0.079    0.211    0.833    0.017    0.011
##    .pri_nee_int_3     0.151    0.081    1.853    0.064    0.151    0.111
##    .pri_nee_int_4     0.132    0.070    1.885    0.059    0.132    0.107
##    .pri_nee_int_5     0.118    0.074    1.594    0.111    0.118    0.086
##    .pri_nee_int_6     0.026    0.069    0.371    0.711    0.026    0.021
##    .pri_nee_int_7     0.349    0.071    4.935    0.000    0.349    0.288
##    .pri_nee_int_8    -0.091    0.078   -1.160    0.246   -0.091   -0.066
```

```
##    .pri_nee_int_9     0.182    0.068    2.666    0.008    0.182    0.148
##  .pri_nee_soc_1 ~~
##    .pri_nee_soc_2     1.041    0.143    7.293    0.000    1.041    0.507
##    .pri_nee_soc_3     0.977    0.138    7.068    0.000    0.977    0.501
##    .pri_nee_soc_4     1.304    0.156    8.366    0.000    1.304    0.625
##    .pri_nee_soc_5     1.036    0.151    6.879    0.000    1.036    0.478
##    .pri_nee_soc_6     0.609    0.145    4.204    0.000    0.609    0.288
##    .pri_nee_soc_7     0.667    0.124    5.358    0.000    0.667    0.352
##    .pri_nee_soc_8     0.310    0.127    2.446    0.014    0.310    0.155
##    .pri_nee_soc_9     1.118    0.145    7.730    0.000    1.118    0.545
##    .pri_nee_int_1    -0.313    0.134   -2.326    0.020   -0.313   -0.156
##    .pri_nee_int_2     0.422    0.143    2.941    0.003    0.422    0.200
##    .pri_nee_int_3     0.137    0.132    1.036    0.300    0.137    0.070
##    .pri_nee_int_4     0.353    0.108    3.259    0.001    0.353    0.199
##    .pri_nee_int_5     0.016    0.133    0.119    0.905    0.016    0.008
##    .pri_nee_int_6     0.222    0.111    2.001    0.045    0.222    0.127
##    .pri_nee_int_7     0.057    0.125    0.461    0.645    0.057    0.033
##    .pri_nee_int_8    -0.217    0.130   -1.669    0.095   -0.217   -0.110
##    .pri_nee_int_9     0.506    0.137    3.701    0.000    0.506    0.286
##  .pri_nee_soc_2 ~~
##    .pri_nee_soc_3     0.975    0.134    7.258    0.000    0.975    0.489
##    .pri_nee_soc_4     1.183    0.146    8.081    0.000    1.183    0.554
##    .pri_nee_soc_5     1.044    0.143    7.295    0.000    1.044    0.471
##    .pri_nee_soc_6     0.800    0.137    5.831    0.000    0.800    0.370
##    .pri_nee_soc_7     0.783    0.120    6.529    0.000    0.783    0.404
##    .pri_nee_soc_8     0.611    0.135    4.534    0.000    0.611    0.299
##    .pri_nee_soc_9     1.055    0.145    7.274    0.000    1.055    0.503
##    .pri_nee_int_1    -0.297    0.133   -2.228    0.026   -0.297   -0.145
##    .pri_nee_int_2     0.648    0.149    4.358    0.000    0.648    0.300
##    .pri_nee_int_3     0.145    0.121    1.192    0.233    0.145    0.072
##    .pri_nee_int_4     0.406    0.106    3.817    0.000    0.406    0.224
##    .pri_nee_int_5     0.015    0.130    0.118    0.906    0.015    0.008
##    .pri_nee_int_6     0.183    0.118    1.553    0.120    0.183    0.102
##    .pri_nee_int_7     0.036    0.109    0.332    0.740    0.036    0.020
##    .pri_nee_int_8    -0.296    0.126   -2.351    0.019   -0.296   -0.147
##    .pri_nee_int_9     0.302    0.119    2.545    0.011    0.302    0.167
##  .pri_nee_soc_3 ~~
##    .pri_nee_soc_4     1.232    0.146    8.438    0.000    1.232    0.608
##    .pri_nee_soc_5     0.865    0.138    6.289    0.000    0.865    0.411
##    .pri_nee_soc_6     0.700    0.138    5.068    0.000    0.700    0.341
##    .pri_nee_soc_7     0.617    0.118    5.231    0.000    0.617    0.335
##    .pri_nee_soc_8     0.495    0.133    3.712    0.000    0.495    0.255
##    .pri_nee_soc_9     1.136    0.138    8.223    0.000    1.136    0.571
##    .pri_nee_int_1    -0.246    0.131   -1.876    0.061   -0.246   -0.126
##    .pri_nee_int_2     0.642    0.125    5.128    0.000    0.642    0.314
##    .pri_nee_int_3     0.287    0.123    2.322    0.020    0.287    0.151
##    .pri_nee_int_4     0.467    0.097    4.820    0.000    0.467    0.271
##    .pri_nee_int_5     0.078    0.115    0.678    0.498    0.078    0.041
##    .pri_nee_int_6     0.189    0.109    1.738    0.082    0.189    0.111
##    .pri_nee_int_7     0.135    0.113    1.200    0.230    0.135    0.080
##    .pri_nee_int_8    -0.249    0.126   -1.977    0.048   -0.249   -0.130
##    .pri_nee_int_9     0.623    0.111    5.606    0.000    0.623    0.363
##  .pri_nee_soc_4 ~~
##    .pri_nee_soc_5     0.979    0.146    6.716    0.000    0.979    0.435
```

```
##    .pri_nee_soc_6     0.727    0.151    4.810    0.000    0.727    0.331
##    .pri_nee_soc_7     0.712    0.131    5.436    0.000    0.712    0.362
##    .pri_nee_soc_8     0.518    0.138    3.757    0.000    0.518    0.249
##    .pri_nee_soc_9     1.156    0.147    7.855    0.000    1.156    0.542
##    .pri_nee_int_1    -0.277    0.136   -2.040    0.041   -0.277   -0.133
##    .pri_nee_int_2     0.522    0.135    3.878    0.000    0.522    0.238
##    .pri_nee_int_3    -0.046    0.132   -0.346    0.729   -0.046   -0.023
##    .pri_nee_int_4     0.218    0.110    1.989    0.047    0.218    0.118
##    .pri_nee_int_5    -0.024    0.130   -0.182    0.855   -0.024   -0.012
##    .pri_nee_int_6     0.164    0.122    1.349    0.177    0.164    0.090
##    .pri_nee_int_7     0.012    0.120    0.102    0.919    0.012    0.007
##    .pri_nee_int_8    -0.316    0.135   -2.349    0.019   -0.316   -0.155
##    .pri_nee_int_9     0.356    0.128    2.776    0.006    0.356    0.194
##  .pri_nee_soc_5 ~~
##    .pri_nee_soc_6     0.717    0.152    4.705    0.000    0.717    0.314
##    .pri_nee_soc_7     0.671    0.124    5.397    0.000    0.671    0.328
##    .pri_nee_soc_8     0.226    0.134    1.694    0.090    0.226    0.105
##    .pri_nee_soc_9     0.960    0.145    6.619    0.000    0.960    0.434
##    .pri_nee_int_1    -0.339    0.142   -2.396    0.017   -0.339   -0.157
##    .pri_nee_int_2     0.382    0.140    2.723    0.006    0.382    0.168
##    .pri_nee_int_3    -0.170    0.137   -1.242    0.214   -0.170   -0.081
##    .pri_nee_int_4     0.440    0.121    3.653    0.000    0.440    0.230
##    .pri_nee_int_5    -0.040    0.131   -0.303    0.762   -0.040   -0.019
##    .pri_nee_int_6     0.072    0.118    0.607    0.544    0.072    0.038
##    .pri_nee_int_7     0.053    0.117    0.456    0.648    0.053    0.029
##    .pri_nee_int_8    -0.451    0.136   -3.326    0.001   -0.451   -0.212
##    .pri_nee_int_9     0.310    0.131    2.376    0.017    0.310    0.163
##  .pri_nee_soc_6 ~~
##    .pri_nee_soc_7     0.766    0.136    5.624    0.000    0.766    0.384
##    .pri_nee_soc_8     0.641    0.139    4.623    0.000    0.641    0.304
##    .pri_nee_soc_9     0.733    0.145    5.048    0.000    0.733    0.340
##    .pri_nee_int_1    -0.551    0.140   -3.951    0.000   -0.551   -0.261
##    .pri_nee_int_2     0.791    0.148    5.356    0.000    0.791    0.356
##    .pri_nee_int_3    -0.031    0.132   -0.239    0.811   -0.031   -0.015
##    .pri_nee_int_4     0.355    0.109    3.250    0.001    0.355    0.190
##    .pri_nee_int_5    -0.106    0.132   -0.804    0.422   -0.106   -0.052
##    .pri_nee_int_6     0.337    0.123    2.742    0.006    0.337    0.183
##    .pri_nee_int_7     0.053    0.111    0.482    0.630    0.053    0.029
##    .pri_nee_int_8    -0.413    0.134   -3.080    0.002   -0.413   -0.200
##    .pri_nee_int_9     0.442    0.118    3.739    0.000    0.442    0.238
##  .pri_nee_soc_7 ~~
##    .pri_nee_soc_8     0.816    0.128    6.369    0.000    0.816    0.432
##    .pri_nee_soc_9     0.803    0.131    6.151    0.000    0.803    0.415
##    .pri_nee_int_1    -0.718    0.124   -5.770    0.000   -0.718   -0.379
##    .pri_nee_int_2     0.661    0.113    5.873    0.000    0.661    0.332
##    .pri_nee_int_3    -0.375    0.115   -3.255    0.001   -0.375   -0.204
##    .pri_nee_int_4     0.046    0.098    0.472    0.637    0.046    0.028
##    .pri_nee_int_5     0.073    0.112    0.650    0.516    0.073    0.040
##    .pri_nee_int_6     0.264    0.107    2.456    0.014    0.264    0.159
##    .pri_nee_int_7    -0.102    0.101   -1.012    0.312   -0.102   -0.062
##    .pri_nee_int_8    -0.372    0.123   -3.036    0.002   -0.372   -0.200
##    .pri_nee_int_9     0.099    0.103    0.958    0.338    0.099    0.059
##  .pri_nee_soc_8 ~~
##    .pri_nee_soc_9     0.677    0.134    5.050    0.000    0.677    0.331
```

```
##    .pri_nee_int_1    -0.559    0.126   -4.435    0.000   -0.559   -0.279
##    .pri_nee_int_2     0.470    0.140    3.356    0.001    0.470    0.224
##    .pri_nee_int_3    -0.127    0.121   -1.045    0.296   -0.127   -0.065
##    .pri_nee_int_4     0.165    0.100    1.659    0.097    0.165    0.093
##    .pri_nee_int_5    -0.010    0.119   -0.085    0.932   -0.010   -0.005
##    .pri_nee_int_6     0.380    0.124    3.059    0.002    0.380    0.217
##    .pri_nee_int_7     0.035    0.109    0.324    0.746    0.035    0.020
##    .pri_nee_int_8    -0.392    0.133   -2.943    0.003   -0.392   -0.200
##    .pri_nee_int_9     0.356    0.108    3.293    0.001    0.356    0.202
##  .pri_nee_soc_9 ~~
##    .pri_nee_int_1    -0.471    0.128   -3.679    0.000   -0.471   -0.230
##    .pri_nee_int_2     0.538    0.141    3.825    0.000    0.538    0.250
##    .pri_nee_int_3     0.018    0.123    0.145    0.885    0.018    0.009
##    .pri_nee_int_4     0.392    0.102    3.840    0.000    0.392    0.216
##    .pri_nee_int_5     0.080    0.130    0.615    0.538    0.080    0.040
##    .pri_nee_int_6     0.189    0.120    1.579    0.114    0.189    0.106
##    .pri_nee_int_7     0.083    0.115    0.721    0.471    0.083    0.047
##    .pri_nee_int_8    -0.284    0.131   -2.167    0.030   -0.284   -0.141
##    .pri_nee_int_9     0.633    0.116    5.455    0.000    0.633    0.351
##  .pri_nee_int_1 ~~
##    .pri_nee_int_2    -0.451    0.139   -3.252    0.001   -0.451   -0.214
##    .pri_nee_int_3     0.462    0.125    3.708    0.000    0.462    0.237
##    .pri_nee_int_4    -0.105    0.110   -0.953    0.341   -0.105   -0.059
##    .pri_nee_int_5     0.191    0.120    1.596    0.110    0.191    0.098
##    .pri_nee_int_6    -0.239    0.107   -2.236    0.025   -0.239   -0.136
##    .pri_nee_int_7     0.208    0.111    1.874    0.061    0.208    0.120
##    .pri_nee_int_8     0.502    0.125    4.012    0.000    0.502    0.255
##    .pri_nee_int_9    -0.145    0.108   -1.341    0.180   -0.145   -0.082
##  .pri_nee_int_2 ~~
##    .pri_nee_int_3     0.269    0.114    2.352    0.019    0.269    0.131
##    .pri_nee_int_4     0.245    0.109    2.245    0.025    0.245    0.131
##    .pri_nee_int_5     0.071    0.139    0.511    0.610    0.071    0.035
##    .pri_nee_int_6     0.552    0.122    4.519    0.000    0.552    0.300
##    .pri_nee_int_7     0.199    0.116    1.707    0.088    0.199    0.109
##    .pri_nee_int_8    -0.173    0.135   -1.280    0.200   -0.173   -0.084
##    .pri_nee_int_9     0.491    0.111    4.408    0.000    0.491    0.265
##  .pri_nee_int_3 ~~
##    .pri_nee_int_4     0.125    0.098    1.273    0.203    0.125    0.072
##    .pri_nee_int_5     0.010    0.120    0.083    0.934    0.010    0.005
##    .pri_nee_int_6     0.221    0.107    2.060    0.039    0.221    0.130
##    .pri_nee_int_7     0.448    0.111    4.035    0.000    0.448    0.266
##    .pri_nee_int_8     0.179    0.122    1.469    0.142    0.179    0.094
##    .pri_nee_int_9     0.344    0.114    3.025    0.002    0.344    0.201
##  .pri_nee_int_4 ~~
##    .pri_nee_int_5    -0.090    0.122   -0.735    0.462   -0.090   -0.052
##    .pri_nee_int_6     0.236    0.089    2.644    0.008    0.236    0.152
##    .pri_nee_int_7     0.323    0.092    3.505    0.000    0.323    0.211
##    .pri_nee_int_8     0.005    0.110    0.043    0.966    0.005    0.003
##    .pri_nee_int_9     0.447    0.118    3.779    0.000    0.447    0.286
##  .pri_nee_int_5 ~~
##    .pri_nee_int_6     0.076    0.112    0.680    0.496    0.076    0.045
##    .pri_nee_int_7     0.166    0.117    1.416    0.157    0.166    0.098
##    .pri_nee_int_8     0.375    0.129    2.908    0.004    0.375    0.196
##    .pri_nee_int_9     0.145    0.111    1.303    0.192    0.145    0.084
```

```
##  .pri_nee_int_6 ~~
##    .pri_nee_int_7     0.302    0.094    3.214    0.001    0.302    0.199
##    .pri_nee_int_8    -0.098    0.113   -0.866    0.387   -0.098   -0.057
##    .pri_nee_int_9     0.190    0.105    1.814    0.070    0.190    0.123
##  .pri_nee_int_7 ~~
##    .pri_nee_int_8     0.009    0.103    0.084    0.933    0.009    0.005
##    .pri_nee_int_9     0.411    0.105    3.913    0.000    0.411    0.269
##  .pri_nee_int_8 ~~
##    .pri_nee_int_9    -0.227    0.114   -1.989    0.047   -0.227   -0.131
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .pri_nee_gen_1     1.529    0.112   13.691    0.000    1.529    0.859
##    .pri_nee_gen_2     1.702    0.130   13.110    0.000    1.702    0.892
##    .pri_nee_gen_3     1.120    0.096   11.661    0.000    1.120    0.880
##    .pri_nee_gen_4     0.981    0.096   10.170    0.000    0.981    0.887
##    .pri_nee_soc_1     2.008    0.162   12.366    0.000    2.008    0.943
##    .pri_nee_soc_2     2.101    0.151   13.913    0.000    2.101    0.938
##    .pri_nee_soc_3     1.892    0.143   13.215    0.000    1.892    0.906
##    .pri_nee_soc_4     2.170    0.165   13.142    0.000    2.170    0.924
##    .pri_nee_soc_5     2.338    0.158   14.778    0.000    2.338    0.939
##    .pri_nee_soc_6     2.225    0.162   13.753    0.000    2.225    0.958
##    .pri_nee_soc_7     1.790    0.142   12.604    0.000    1.790    0.891
##    .pri_nee_soc_8     1.994    0.166   11.994    0.000    1.994    0.915
##    .pri_nee_soc_9     2.093    0.155   13.464    0.000    2.093    0.925
##    .pri_nee_int_1     2.009    0.145   13.864    0.000    2.009    0.944
##    .pri_nee_int_2     2.215    0.170   13.007    0.000    2.215    0.948
##    .pri_nee_int_3     1.892    0.152   12.445    0.000    1.892    0.900
##    .pri_nee_int_4     1.570    0.136   11.590    0.000    1.570    0.884
##    .pri_nee_int_5     1.895    0.139   13.594    0.000    1.895    0.910
##    .pri_nee_int_6     1.532    0.113   13.561    0.000    1.532    0.890
##    .pri_nee_int_7     1.496    0.128   11.674    0.000    1.496    0.913
##    .pri_nee_int_8     1.928    0.121   15.980    0.000    1.928    0.945
##    .pri_nee_int_9     1.555    0.141   10.995    0.000    1.555    0.915
##     itg_gen           0.488    0.036   13.749    0.000    0.488    1.000
##     soc_gen           0.830    0.074   11.254    0.000    0.830    1.000
##     anx_gen           0.567    0.043   13.153    0.000    0.567    1.000
##     tra_gen           0.640    0.053   12.180    0.000    0.640    1.000
##     ria_gen           0.527    0.059    8.988    0.000    0.527    1.000
##     male              0.199    0.012   16.370    0.000    0.199    1.000
##     age               6.951    4.850    1.433    0.152    6.951    1.000
##     inc               0.999    0.113    8.807    0.000    0.999    1.000
```

Visualization