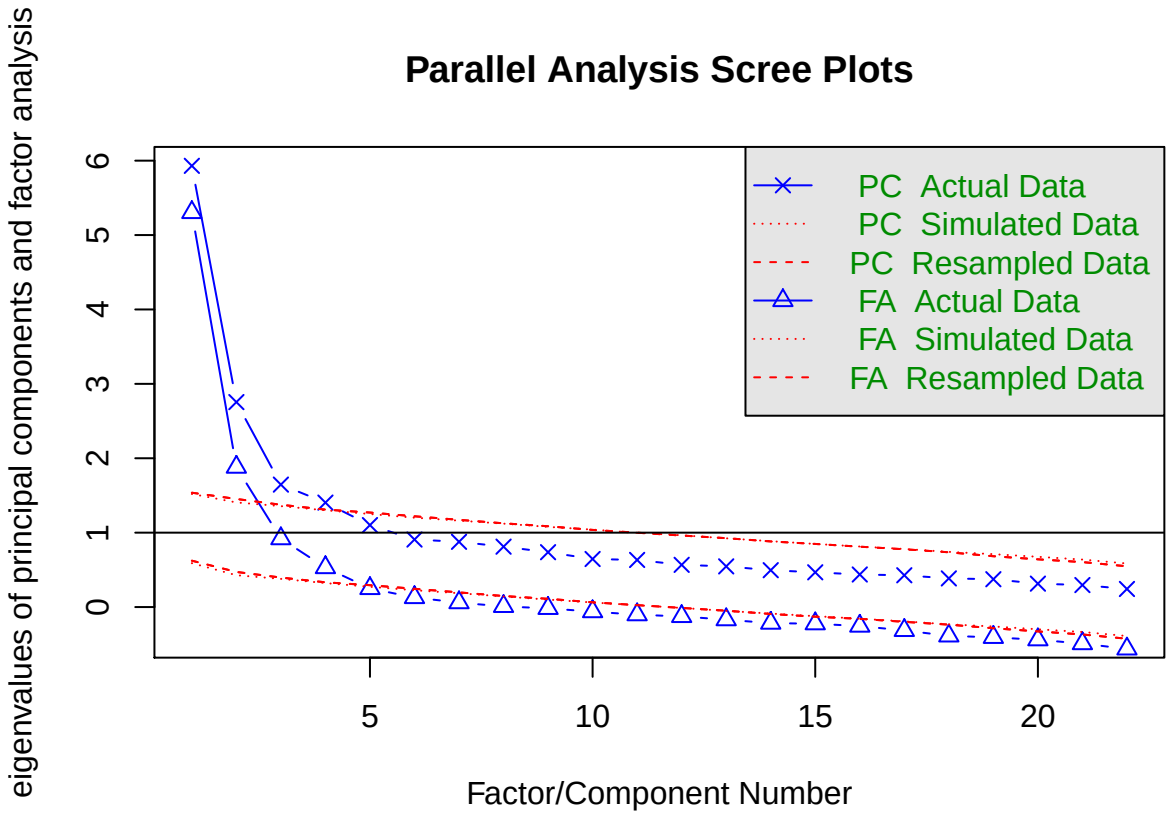
Who Needs Privacy?

Analyses

Measures

Need for Privacy

Parallel analysis

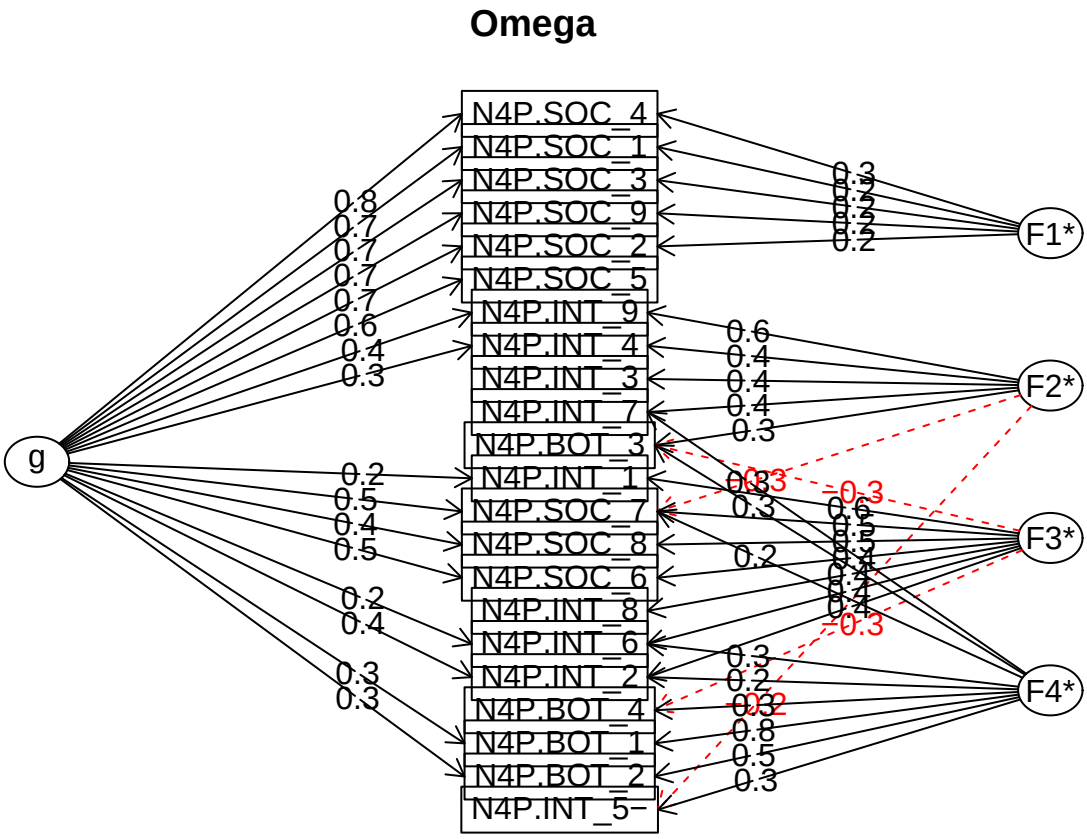



```
## Parallel analysis suggests that the number of factors =  4  and the number of components =  4
```

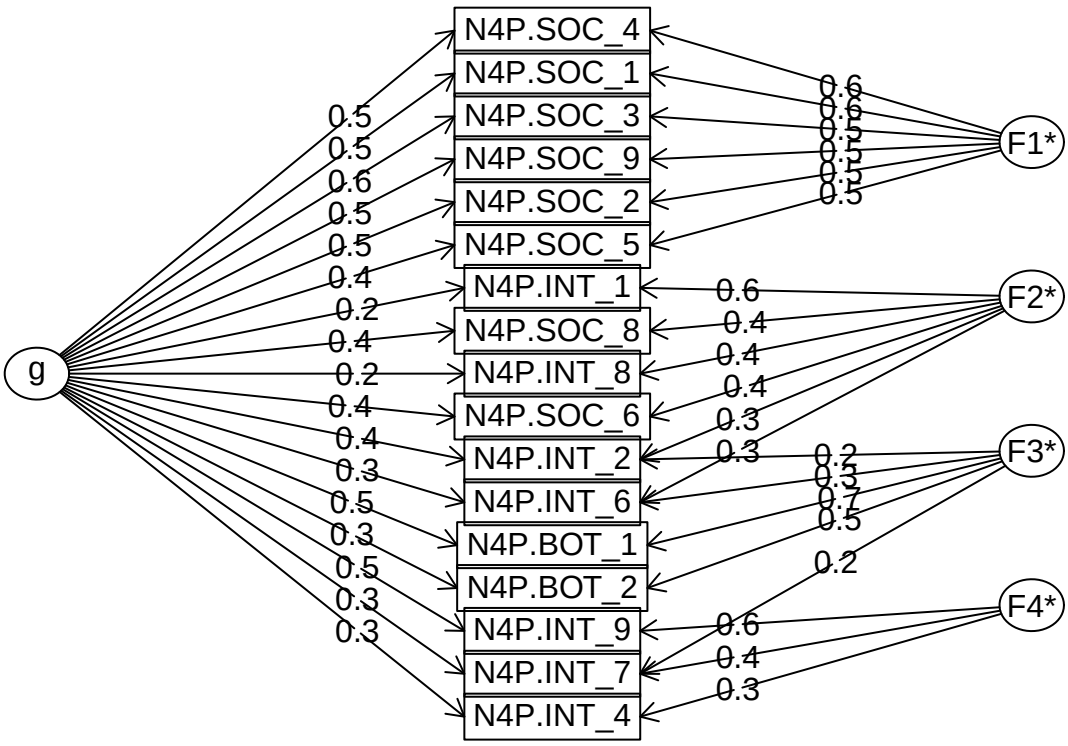
Solution suggests 4 or 3 factors

EFA 4 factors

```
## Loading required namespace: GPArotation
```



Shows several items with negative or low loadings, which will be excluded in updated version.

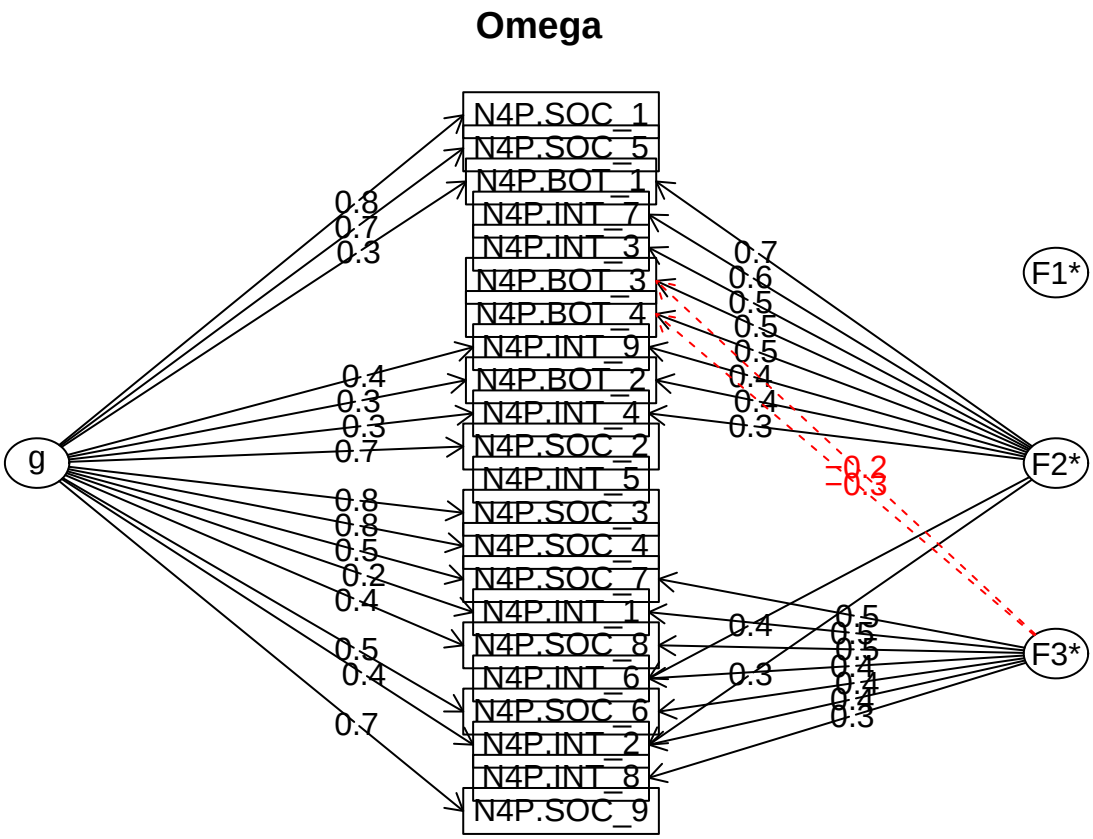


Produces a fitting solution.

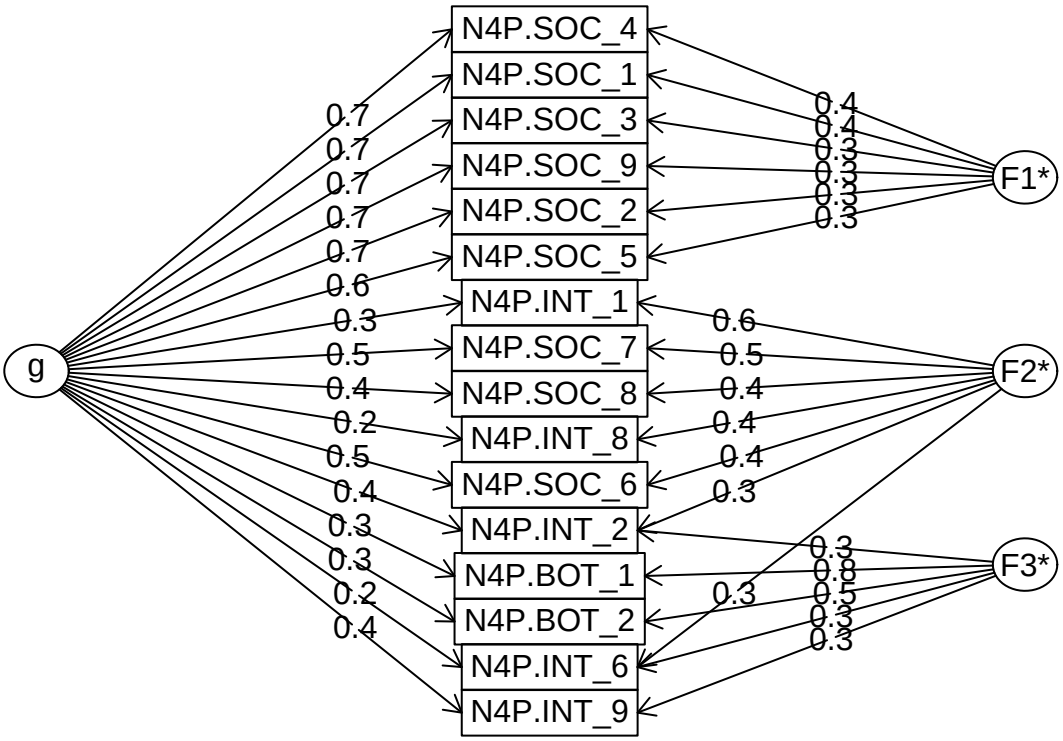
```
##                g     F1*      F2*      F3*      F4*    h2    u2    p2
## N4P.BOT_1  0.476  0.0017 -0.01068  0.72172  0.05853 0.771 0.229 0.294
## N4P.BOT_2  0.340  0.1034 -0.00612  0.48756 -0.07628 0.352 0.648 0.328
## N4P.SOC_1  0.518  0.5890 -0.07230 -0.00139  0.03966 0.604 0.396 0.444
## N4P.SOC_2  0.524  0.4986  0.06403  0.12853 -0.06464 0.553 0.447 0.496
## N4P.SOC_3  0.571  0.5368  0.01856 -0.01773  0.13212 0.622 0.378 0.524
## N4P.SOC_4  0.524  0.6382 -0.02288  0.01089 -0.07338 0.691 0.309 0.397
## N4P.SOC_5  0.445  0.4703  0.03197 -0.00416  0.00675 0.425 0.575 0.467
## N4P.SOC_6  0.444  0.1947  0.39156  0.09969 -0.01624 0.410 0.590 0.482
## N4P.SOC_8  0.402  0.1015  0.39991  0.16635 -0.02114 0.350 0.650 0.462
## N4P.SOC_9  0.540  0.5012  0.11426 -0.05935  0.09163 0.579 0.421 0.504
## N4P.INT_1  0.230 -0.0226  0.57637 -0.09639 -0.01656 0.411 0.589 0.128
## N4P.INT_2  0.438  0.0548  0.33205  0.22929  0.09724 0.350 0.650 0.547
## N4P.INT_4  0.332  0.0733  0.07289  0.02455  0.32410 0.223 0.777 0.494
## N4P.INT_6  0.349 -0.0856  0.29798  0.28883  0.12961 0.296 0.704 0.412
## N4P.INT_7  0.291 -0.0595 -0.11945  0.23933  0.40766 0.390 0.610 0.217
## N4P.INT_8  0.206  0.0100  0.39478 -0.12490  0.08412 0.230 0.770 0.185
## N4P.INT_9  0.475  0.0939  0.04950  0.00437  0.55469 0.533 0.467 0.423
```

Using four factors, looking at the items's content we do not find an easily interpretable solution.

EFA 3 factors



Shows several items with negative or low loadings, which will be excluded in updated version.



Produces a fitting solution.

```
##               g      F1*     F2*      F3*    h2    u2    p2
## N4P.BOT_1 0.348 -0.00551 -0.0161  0.81843 0.791 0.209 0.153
## N4P.BOT_2 0.304  0.05660 -0.0386  0.48485 0.332 0.668 0.279
## N4P.SOC_1 0.684  0.36916 -0.0671  0.00911 0.609 0.391 0.769
## N4P.SOC_2 0.661  0.30252  0.0472  0.08269 0.538 0.462 0.813
## N4P.SOC_3 0.696  0.33927  0.0214  0.03667 0.601 0.399 0.805
## N4P.SOC_4 0.723  0.38748 -0.0298 -0.03802 0.675 0.325 0.774
## N4P.SOC_5 0.585  0.29342  0.0304 -0.02200 0.430 0.570 0.797
## N4P.SOC_6 0.492  0.11106  0.3628  0.07968 0.392 0.608 0.616
## N4P.SOC_7 0.547  0.11010  0.4546  0.07403 0.524 0.476 0.572
## N4P.SOC_8 0.425  0.03675  0.4388  0.14495 0.396 0.604 0.457
## N4P.SOC_9 0.680  0.31184  0.1280 -0.03470 0.577 0.423 0.801
## N4P.INT_1 0.252 -0.02805  0.5657 -0.14125 0.404 0.596 0.157
## N4P.INT_2 0.400  0.03099  0.3278  0.27621 0.345 0.655 0.465
## N4P.INT_6 0.249 -0.04932  0.2910  0.34373 0.267 0.733 0.232
## N4P.INT_8 0.214  0.00805  0.3821 -0.11652 0.205 0.795 0.223
## N4P.INT_9 0.354  0.10497  0.0503  0.25593 0.205 0.795 0.614
```

Using three factors, we find a solution that can be interpreted conveniently:

- factor 1 measures privacy from the government (vertical)
- factor 2 measures privacy from identification (combined)
- factor 3 measures privacy from other people (horizontal)

CFA

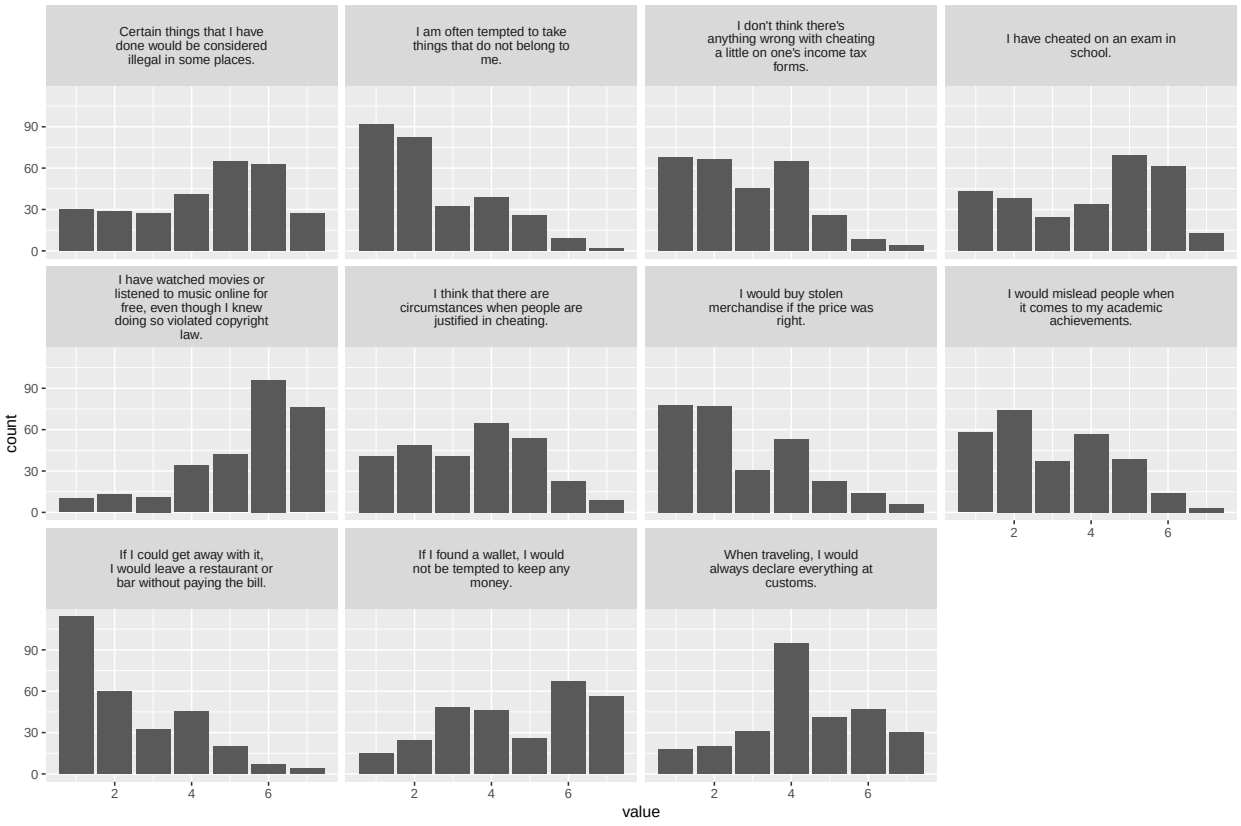
```
## lavaan 0.6-3 ended normally after 85 iterations
##
##   Optimization method                           NLMINB
##   Number of free parameters                         66
##
##                                                   Used       Total
##   Number of observations                           284         307
##   Number of missing patterns                         2
##
##   Estimator                                         ML
##   Model Fit Test Statistic                     156.277
##   Degrees of freedom                                86
##   P-value (Chi-square)                           0.000
##
## Model test baseline model:
##
##   Minimum Function Test Statistic             1690.077
##   Degrees of freedom                               120
##   P-value                                        0.000
##
## User model versus baseline model:
##
##   Comparative Fit Index (CFI)                    0.955
##   Tucker-Lewis Index (TLI)                       0.938
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)              -7456.661
```

```
##   Loglikelihood unrestricted model (H1)      -7378.522
##
##   Number of free parameters                         66
##   Akaike (AIC)                                15045.322
##   Bayesian (BIC)                              15286.154
##   Sample-size adjusted Bayesian (BIC)         15076.866
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.054
##   90 Percent Confidence Interval          0.040  0.067
##   P-value RMSEA <= 0.05                          0.314
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.040
##
## Parameter Estimates:
##
##   Information                                 Observed
##   Observed information based on                Hessian
##   Standard Errors                             Standard
##
## Latent Variables:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_ver =~
##     N4P.SOC_4         1.000                               0.880    0.558
##     N4P.SOC_1         0.807    0.307    2.632    0.008    0.710    0.475
##     N4P.SOC_3         0.571    0.159    3.585    0.000    0.502    0.340
##     N4P.SOC_9         0.413    0.229    1.807    0.071    0.363    0.237
##     N4P.SOC_2         0.447    0.187    2.391    0.017    0.393    0.260
##     N4P.SOC_5         0.504    0.298    1.695    0.090    0.444    0.275
##   pri_nee_ide =~
##     N4P.INT_1         1.000                               0.903    0.602
##     N4P.SOC_7         0.642    0.169    3.807    0.000    0.580    0.392
##     N4P.SOC_8         0.574    0.191    2.999    0.003    0.518    0.340
##     N4P.INT_8         0.644    0.147    4.374    0.000    0.582    0.395
##     N4P.SOC_6         0.502    0.159    3.157    0.002    0.454    0.286
##     N4P.INT_2         0.522    0.159    3.273    0.001    0.471    0.300
##     N4P.INT_6         0.494    0.145    3.398    0.001    0.446    0.329
##   pri_nee_hor =~
##     N4P.BOT_1         1.000                               1.087    0.796
##     N4P.BOT_2         0.594    0.115    5.178    0.000    0.645    0.457
##     N4P.INT_6         0.456    0.116    3.930    0.000    0.495    0.365
##     N4P.INT_9         0.286    0.094    3.025    0.002    0.311    0.234
##     N4P.INT_2         0.374    0.118    3.160    0.002    0.407    0.259
##   pri_nee_gen =~
##     N4P.SOC_4         1.000                               1.014    0.643
##     N4P.SOC_1         0.912    0.110    8.299    0.000    0.924    0.618
##     N4P.SOC_3         1.016    0.094   10.835    0.000    1.030    0.697
##     N4P.SOC_9         1.092    0.114    9.548    0.000    1.107    0.723
##     N4P.SOC_2         1.031    0.107    9.651    0.000    1.045    0.691
##     N4P.SOC_5         0.932    0.128    7.310    0.000    0.945    0.586
##     N4P.INT_1         0.355    0.108    3.302    0.001    0.360    0.240
```

```
##     N4P.SOC_7         0.894    0.137    6.525    0.000    0.906    0.613
##     N4P.SOC_8         0.763    0.149    5.116    0.000    0.773    0.508
##     N4P.INT_8         0.300    0.102    2.931    0.003    0.304    0.206
##     N4P.SOC_6         0.886    0.142    6.235    0.000    0.898    0.566
##     N4P.INT_2         0.681    0.132    5.153    0.000    0.691    0.440
##     N4P.INT_6         0.320    0.102    3.145    0.002    0.324    0.239
##     N4P.BOT_1         0.512    0.110    4.645    0.000    0.519    0.380
##     N4P.BOT_2         0.487    0.105    4.624    0.000    0.493    0.350
##     N4P.INT_9         0.521    0.099    5.262    0.000    0.528    0.399
##
## Covariances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##   pri_nee_ver ~~
##     pri_nee_gen       0.000                               0.000    0.000
##   pri_nee_hor ~~
##     pri_nee_gen       0.000                               0.000    0.000
##   pri_nee_ide ~~
##     pri_nee_gen       0.000                               0.000    0.000
##   pri_nee_ver ~~
##     pri_nee_hor       0.000                               0.000    0.000
##     pri_nee_ide       0.000                               0.000    0.000
##   pri_nee_ide ~~
##     pri_nee_hor       0.000                               0.000    0.000
##
## Intercepts:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .N4P.SOC_4         4.148    0.094   44.341    0.000    4.148    2.631
##    .N4P.SOC_1         4.194    0.089   47.288    0.000    4.194    2.806
##    .N4P.SOC_3         4.116    0.088   46.980    0.000    4.116    2.788
##    .N4P.SOC_9         4.025    0.091   44.263    0.000    4.025    2.627
##    .N4P.SOC_2         4.331    0.090   48.212    0.000    4.331    2.861
##    .N4P.SOC_5         4.169    0.096   43.587    0.000    4.169    2.586
##    .N4P.INT_1         3.074    0.089   34.447    0.000    3.074    2.050
##    .N4P.SOC_7         2.708    0.088   30.865    0.000    2.708    1.832
##    .N4P.SOC_8         3.025    0.090   33.466    0.000    3.025    1.986
##    .N4P.INT_8         3.924    0.088   44.672    0.000    3.924    2.659
##    .N4P.SOC_6         3.239    0.094   34.437    0.000    3.239    2.043
##    .N4P.INT_2         2.821    0.093   30.210    0.000    2.821    1.797
##    .N4P.INT_6         3.622    0.081   44.865    0.000    3.622    2.670
##    .N4P.BOT_1         4.518    0.081   55.787    0.000    4.518    3.310
##    .N4P.BOT_2         4.317    0.084   51.556    0.000    4.317    3.059
##    .N4P.INT_9         4.600    0.079   58.334    0.000    4.600    3.472
##     pri_nee_ver       0.000                               0.000    0.000
##     pri_nee_ide       0.000                               0.000    0.000
##     pri_nee_hor       0.000                               0.000    0.000
##     pri_nee_gen       0.000                               0.000    0.000
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
##    .N4P.SOC_4         0.684    0.204    3.355    0.001    0.684    0.275
##    .N4P.SOC_1         0.876    0.134    6.544    0.000    0.876    0.392
##    .N4P.SOC_3         0.868    0.087   10.009    0.000    0.868    0.398
##    .N4P.SOC_9         0.990    0.106    9.372    0.000    0.990    0.421
##    .N4P.SOC_2         1.044    0.104   10.090    0.000    1.044    0.456
```

```
##     .N4P.SOC_5        1.509    0.138   10.962    0.000    1.509    0.581
##     .N4P.INT_1        1.303    0.209    6.246    0.000    1.303    0.580
##     .N4P.SOC_7        1.028    0.115    8.954    0.000    1.028    0.470
##     .N4P.SOC_8        1.453    0.143   10.193    0.000    1.453    0.626
##     .N4P.INT_8        1.746    0.169   10.319    0.000    1.746    0.802
##     .N4P.SOC_6        1.501    0.146   10.313    0.000    1.501    0.597
##     .N4P.INT_2        1.599    0.154   10.363    0.000    1.599    0.649
##     .N4P.INT_6        1.291    0.138    9.369    0.000    1.291    0.702
##     .N4P.BOT_1        0.411    0.223    1.843    0.065    0.411    0.221
##     .N4P.BOT_2        1.331    0.130   10.251    0.000    1.331    0.669
##     .N4P.INT_9        1.380    0.124   11.103    0.000    1.380    0.786
##      pri_nee_ver      0.774    0.260    2.972    0.003    1.000    1.000
##      pri_nee_ide      0.816    0.235    3.470    0.001    1.000    1.000
##      pri_nee_hor      1.181    0.261    4.528    0.000    1.000    1.000
##      pri_nee_gen      1.027    0.225    4.572    0.000    1.000    1.000
```

Integrity



Sociability

Fearfulness

Traditionalism

Risk Avoidance

Extraversion

Neuroticism

Conscientiousness

Agreableness

Openness

Tests