

Appendix I

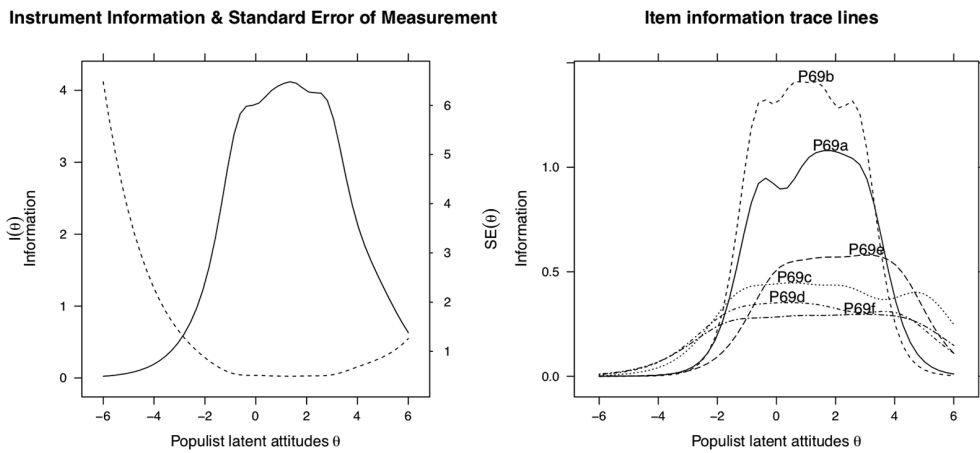


Figure 6.A1 2013 UDNP test information curve and item information trace lines

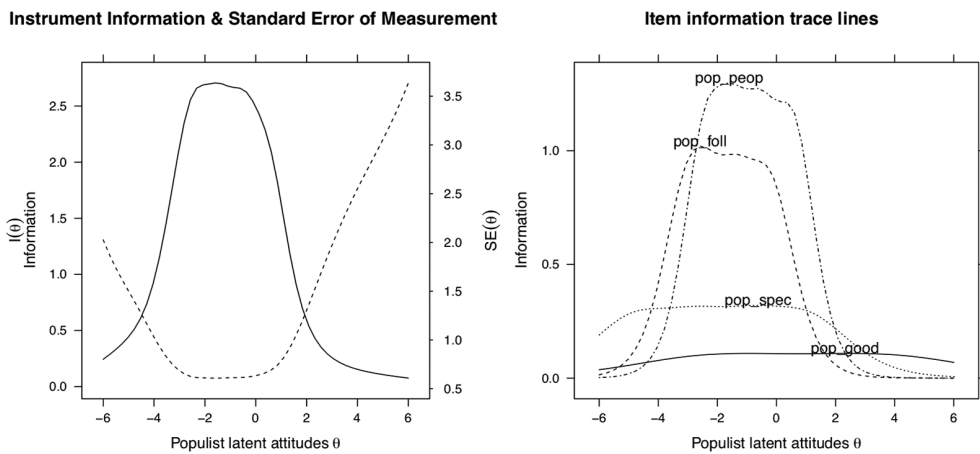
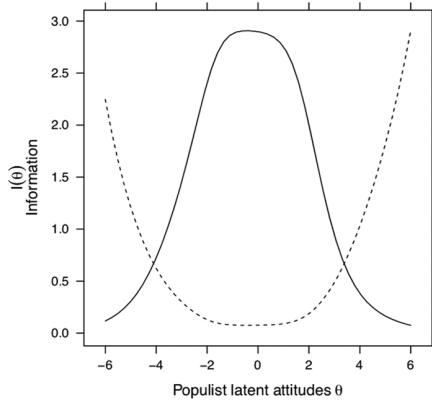


Figure A.2 2008 UCEP test information curve and item information trace lines

Instrument Information & Standard Error of Measurement



Item information trace lines

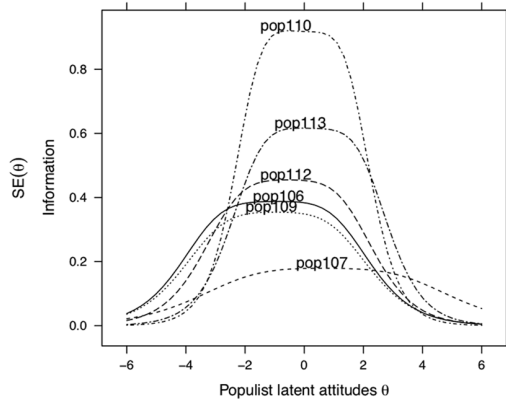
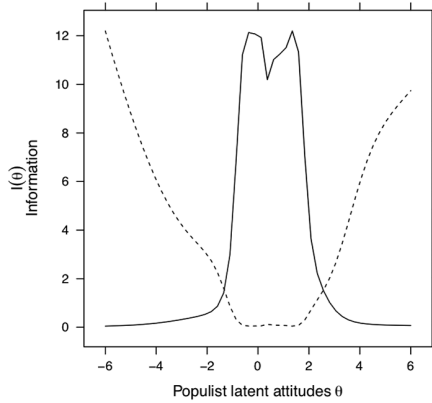


Figure 6.A3 2008 LAPOP (Latin America) test information curve and item information trace lines

Instrument Information & Standard Error of Measurement



Item information trace lines

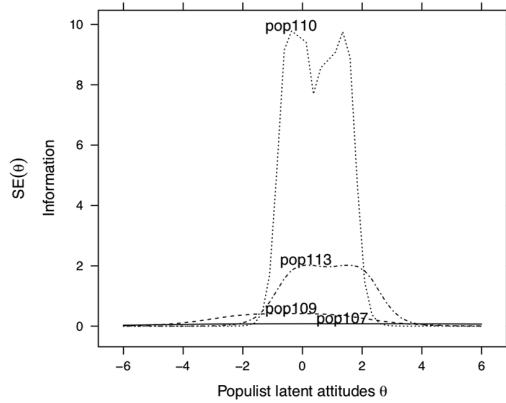
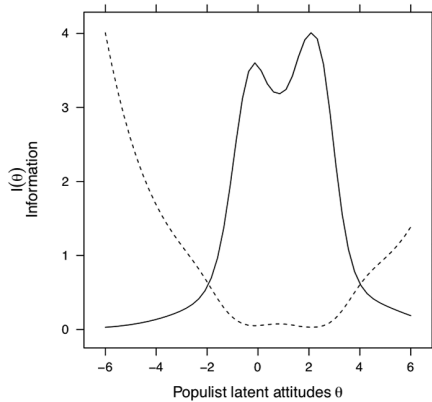


Figure 6.A4 2008 LAPOP (USA) test information curve and item information trace lines

Instrument Information & Standard Error of Measurement



Item information trace lines

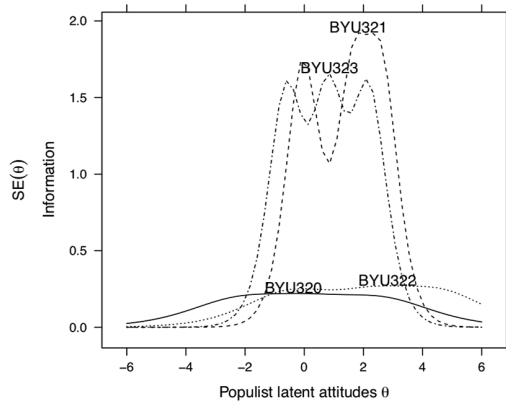


Figure 6.A5 2008 CCES test information curve and item information trace lines

Table 6.A1 Background and contextual characteristics of the data sets

Survey	Year	Region	Countries	N	Valid cases*	# Items	Answer categories	Labelled answer categories	Omega	Cronbach's alpha
UCEP	2008	North America	USA (Utah)	6.697	882	7	5	Quartiles	0,72	0,67
CCES	2008	North America	USA	1.000	949	8	4	All (6)	0,76	0,73
CCES	2012	North America	USA	1.000	835	15	5	All (7)	0,70	0,64
LAPOP	2008	Americas	22 Latin American countries (1)	37.035	28.714	9	7	Extremes only	0,77	0,72
LAPOP	2008	Americas	USA	1.500	1.492	7	7	Extremes only	0,84	0,80
LAPOP	2008	Americas	Canada	2.032	1.911	4	7	Extremes only	0,64	0,60
LAPOP	2010	Americas	18 Latin American countries (2)	30.064	24.128	5	7	Extremes only	0,79	0,76
SNES	2010	Eastern Europe	Slovakia	1.203	879	9	7	Extremes only	0,61	0,55
UDP	2013	South America	Chile	1.805	1.423	11	5	All (4)	0,71	0,64
UDP	2015	South America	Chile	1.302	1.038	12	5	Extremes only	0,85	0,83
WoPo	2014	Western Europe	the Netherlands	631	582	6	5	Extremes only	0,85	0,81
LIVEWHAT	2015	Europe	9 countries (3)	18.368	18.368	8	5	All (5)	0,89	0,88

Note: All data sets are stripped of missing values via complete cases. This means, if an observation contained a missing value for one of the populist indicators in the data set, we excluded it from analysis. The survey in the Netherlands was completed by 631 respondents, but following Akkerman et al. (2014) we also delete all respondents who completed the survey in less than 10mins. Hence, the number of cases and valid cases differs.

(1) This includes 22 countries, namely Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Bolivia, Peru, Paraguay, Chile, Uruguay, Brazil, Venezuela, Argentina, Dominican Republic, Haiti, Jamaica, Guyana (2009) and Belize. It does not include the USA and Canada.

(2) This includes 18 countries, namely Mexico, Guatemala, El Salvadr, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Paraguay, Uruguay, Brazil, Dominican Republic, Haiti, Jamaica, Guyana and Belize. It does not include the USA and Canada.

(3) This includes 9 countries, namely France, Germany, Greece, Italy, Poland, Spain, Sweden, Switzerland and the UK

(4) muy de acuerdo, de acuerdo, ni de acuerdo ni en desacuerdo, en desacuerdo, muy en desacuerdo

(5) disagree strongly, disagree, neither, agree, agree strongly

(6) strongly agree, agree, disagree, strongly disagree

(7) strongly disagree, somewhat disagree, neutral, somewhat agree, strongly agree

Appendix II

Replication Materials

```
#####  
# Van Hauwaert, Schimpf, and Azevedo: "Public Opinion      #  
# surveys: evaluating existing measures. in:              #  
# Hawkins, Carlin, Littvay, and Rovira Kaltwasser (eds) "The #  
# Ideational Approach to Populism: Concept, Theory, and   #  
# Method." Routledge.                                     #  
#                                                         #  
# Replication Code for R (Version: 3.4.0)                 #  
# Note: Authors used R-Studio                             #  
# Last updated: November 7, 2017                          #  
#####  
#  
#  
# General Comment: Below, we detail the code used to create the basic analyses and graphs  
#                   that appear in the chapter. Note, however, that graphics may not look  
#                   identical (in terms of color etc.) because editing of the graphs was  
#                   done at a later stage.  
#  
#  
# How to run the R-Script: The script is written in a way, that three steps ensure it  
# should run without further complications, producing the results and graphs presented in  
# the paper.  
#           STEP 1: Save all the provided datasets in one folder/directory.  
#  
#           STEP 2: Change the working directory in line 37 of this code. This should  
# reflect the path to the folder in which the datasets are saved.  
#  
#           STEP 3: Run the full R-Script. Note that we also highlighted in the code  
# for the figures (see PART 2 of this R-Script) the corresponding figure numbers from the  
# chapter so to facilitate easy comparison.  
#  
#  
#  
#  
#  
#  
#  
#  
#  
##### PREPARATIONS #####  
  
#Clear the working space  
rm(list=ls())  
  
#set working directoy (Enter path for folder in which datasets are stored)  
setwd("ENTER FOLDER NAME HERE")
```

```

# Load necessary R packages (Note: this code ensures that, in case any package has
not
# previously been installed, it will install the package first before loading it
into the library)
packages <- c("mirt", "foreign")
for (p in packages) {
  if (p %in% installed.packages()[,1]) require(p, character.only=T)
  else {
    install.packages(p)
    library(p, character.only=T)
  }
}

#### Step 1: Dataset preparations ####

# Below, we created five datasets, each containing the populism items from the
# different datasets (CCES 2012, SNES 2012, WoPo, LiveWhat, and UDP 2015)

#### 1A CCES 2012 ####

CCES2012 <- read.dta("CCES_2012_STATA12.dta") # analyzing this data will give Figure
6.1

#Variables are not read in as numerical/integer variables. Requires transformation.
The following line
#transfers all variables into integer variables.

CCES2012$BYA401 <- as.integer(CCES2012$BYA401)
CCES2012$BYA403 <- as.integer(CCES2012$BYA403)
CCES2012$BYA405 <- as.integer(CCES2012$BYA405)
CCES2012$BYA407 <- as.integer(CCES2012$BYA407)

#Note: There are lines with missings in the dataset. These cannot be used for IRT
analyses.
#   Rather than removing them manually, the specification "technical =
list(removeEmptyRows=TRUE)"
#   is later used in the analyses to take care of that issue.

#### 1B SNES 2010 ####

SNES2010 <- read.dta("SNES_2010_STATA12.dta") # analyzing this data will give Figure
6.2

#### 1C WoPo (Dutch 2011 Survey Data) ####

df_WoPo <- read.dta("WoPo_STATA12.dta") # analyzing this data will give Figure 6.3

```

```

#### 1D LiveWhat Dataset ####

df_LW <- read.dta("LiveWhat_STATA12.dta") # analyzing this data will give Figure 6.3

#Variables are not read in as numerical/integer variables. Requires transformation.
The following line
#transfers all variables into integer variables.

df_LW$populism_1 <- as.integer(df_LW$populism_1)
df_LW$populism_2 <- as.integer(df_LW$populism_2)
df_LW$populism_3 <- as.integer(df_LW$populism_3)
df_LW$populism_4 <- as.integer(df_LW$populism_4)
df_LW$populism_5 <- as.integer(df_LW$populism_5)
df_LW$populism_6 <- as.integer(df_LW$populism_6)
df_LW$populism_7 <- as.integer(df_LW$populism_7)
df_LW$populism_8 <- as.integer(df_LW$populism_8)

#### 1E UDP 2015 ####

UDP2015 <- read.dta("UDP2015_STATA2012.dta") # analyzing this data will give Figure
6.5

#Variables are not read in as numerical/integer variables. Requires transformation.
The following line
#transfers all variables into integer variables.

UDP2015$P41A <- as.integer(UDP2015$P41A)
UDP2015$P41B <- as.integer(UDP2015$P41B)
UDP2015$P41C <- as.integer(UDP2015$P41C)
UDP2015$P41D <- as.integer(UDP2015$P41D)
UDP2015$P41E <- as.integer(UDP2015$P41E)
UDP2015$P41F <- as.integer(UDP2015$P41F)

##### Step 2: Main Analyses
#####

#Note: Any changes to the figures, e.g. colors etc., were done at a later
# stage and are not included in this code.

#### 2A - CCES 2012 Analyses ####

# Estimate Graded Response Model
modelCCES <- mirt(CCES2012, 1, itemtype="graded", verbose=TRUE, technical =
list(removeEmptyRows=TRUE))

# Summary of GRM model

```

```

summary(modelCCES)

# Plot Classical Reliability
plot(modelCCES, type = 'rxx')

# Plot Information with Standard Error
# -> Compare Figure 6.1, left-hand panel in the chapter
plot(modelCCES, type = 'infoSE')

# Plot Item Information Curves
# -> Compare Figure 6.1, right-hand panel in the chapter
plot(modelCCES, type = 'infotrace', facet_items = FALSE)

# Plot Item Characteristic Curves for item 1
itemplot(modelCCES, 1, type = 'infotrace')

#### 2B - SNES 2010 Analyses ####

# Estimate Graded Response Model
modelSNES <- mirt(SNES2010, 1, itemtype="graded", verbose=TRUE, technical =
list(removeEmptyRows=TRUE))

# Summary of GRM model
summary(modelSNES)

# Plot Classical Reliability
plot(modelSNES, type = 'rxx')

# Plot Information with Standard Error
# -> Compare Figure 6.2, left-hand panel in the chapter
plot(modelSNES, type = 'infoSE')

# Plot Item Information Curves
# -> Compare Figure 6.2, right-hand panel in the chapter
plot(modelSNES, type = 'infotrace', facet_items = FALSE)

# Plot Item Characteristic Curves for item 1
itemplot(modelSNES, 1, type = 'infotrace')

#### 2C - WoPo Analyses ####

# Estimate Graded Response Model
modelWoPo <- mirt(df_WoPo, 1, itemtype="graded", verbose=TRUE, technical =
list(removeEmptyRows=TRUE))

# Summary of GRM model

```

```

summary(modelWoPo)

# Plot Classical Reliability
plot(modelWoPo, type = 'rxx')

# Plot Information with Standard Error
# -> Compare Figure 6.3, left-hand panel in the chapter
plot(modelWoPo, type = 'infoSE')

# Plot Item Information Curves
# -> Compare Figure 6.3, right-hand panel in the chapter
plot(modelWoPo, type = 'infotrace', facet_items = FALSE)

# Plot Item Characteristic Curves for item 1
itemplot(modelWoPo, 1, type = 'infotrace')

#### 2D - LIVEWHAT Analyses ####

# Estimate Graded Response Model
modelLW <- mirt(df_LW, 1, itemtype="graded", verbose=TRUE, technical =
list(removeEmptyRows=TRUE))

# Summary of GRM model
summary(modelLW)

# Plot Classical Reliability
plot(modelLW, type = 'rxx')

# Plot Information with Standard Error
# -> Compare Figure 6.4, left-hand panel in the chapter
plot(modelLW, type = 'infoSE')

# Plot Item Information Curves
# -> Compare Figure 6.4, right-hand panel in the chapter
plot(modelLW, type = 'infotrace', facet_items = FALSE)

# Plot Item Characteristic Curves for item 1
itemplot(modelLW, 1, type = 'infotrace')

#### 2E - UDP 2015 Analyses ####

# Estimate Graded Response Model
modelUDP <- mirt(UDP2015, 1, itemtype="graded", verbose=TRUE, technical =
list(removeEmptyRows=TRUE))

# Summary of GRM model

```



```
summary(modelUDP)

# Plot Classical Reliability
plot(modelUDP, type = 'rxx')

# Plot Information with Standard Error
# -> Compare Figure 6.5, left-hand panel in the chapter
plot(modelUDP, type = 'infoSE')

# Plot Item Information Curves
# -> Compare Figure 6.5, right-hand panel in the chapter
plot(modelUDP, type = 'infotrace', facet_items = FALSE)

# Plot Item Characteristic Curves for item 1
itemplot(modelUDP, 1, type = 'infotrace')

##### R-Script End #####
```

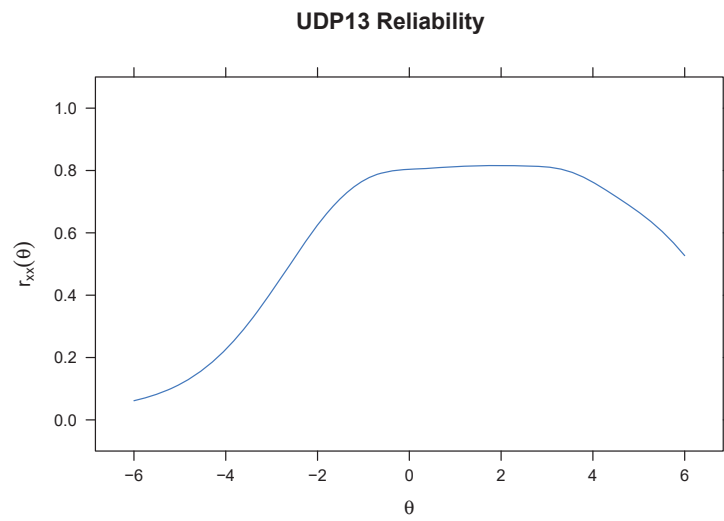
Appendix III

Psychometric Properties of Populist attitudes

Flavio Azevedo - July 2017

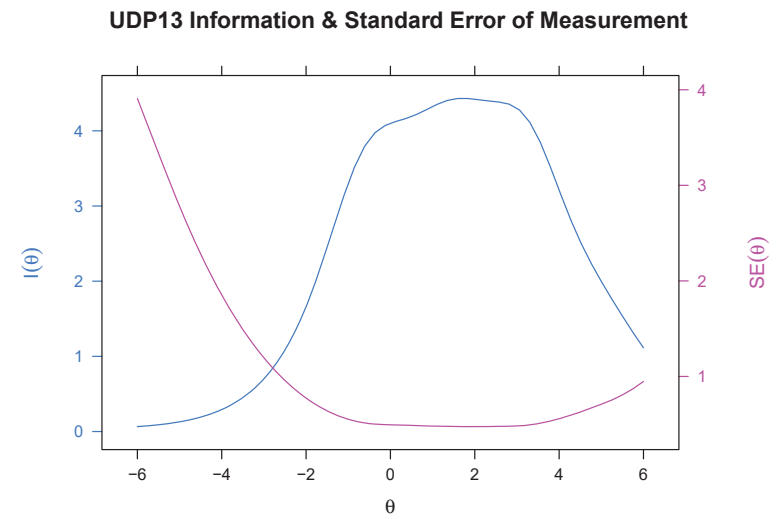
1. UDP13 [1423 valid cases]

1.A Reliability



1

1.B Information & Standard Error of Measurement

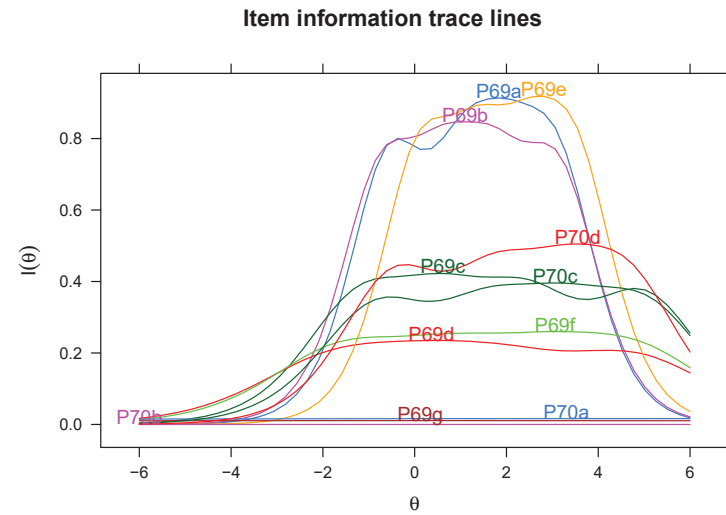


2

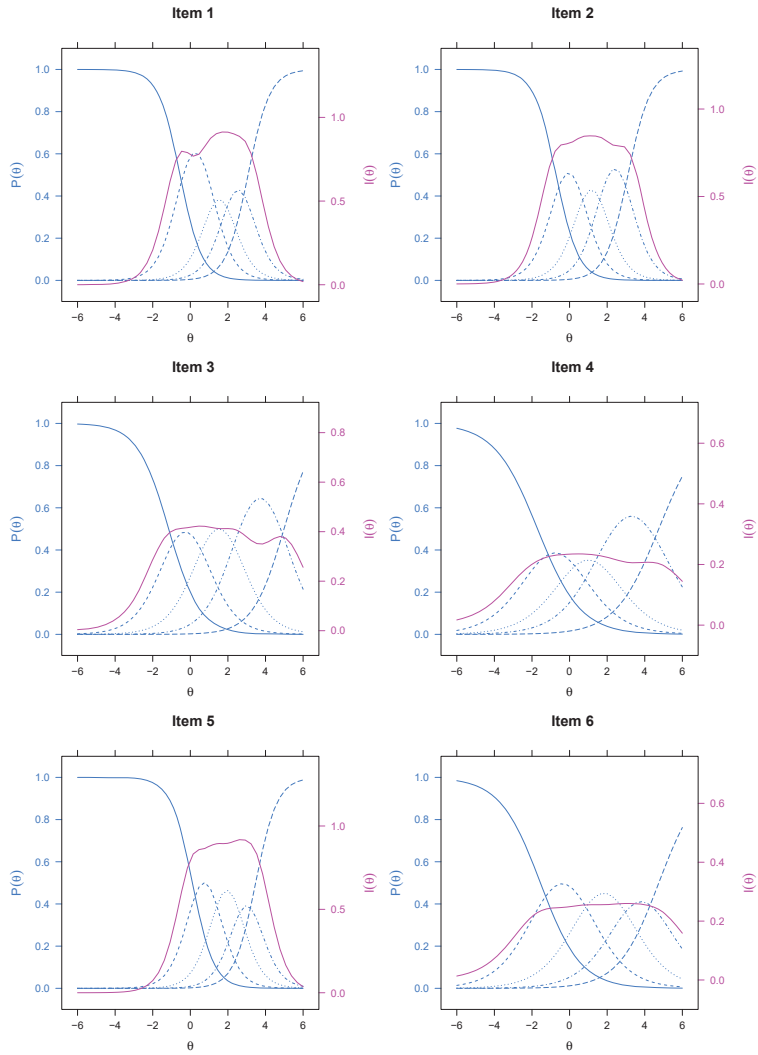
1.C Estimated total scores per level of the latent construct

	total.score	theta
1	16.14302	-6
2	16.22841	-5
3	16.43820	-4
4	16.94088	-3
5	18.08821	-2
6	20.44861	-1
7	24.17329	0
8	28.67966	1
9	33.65994	2
10	38.55952	3
11	42.62867	4
12	45.36083	5
13	47.01651	6

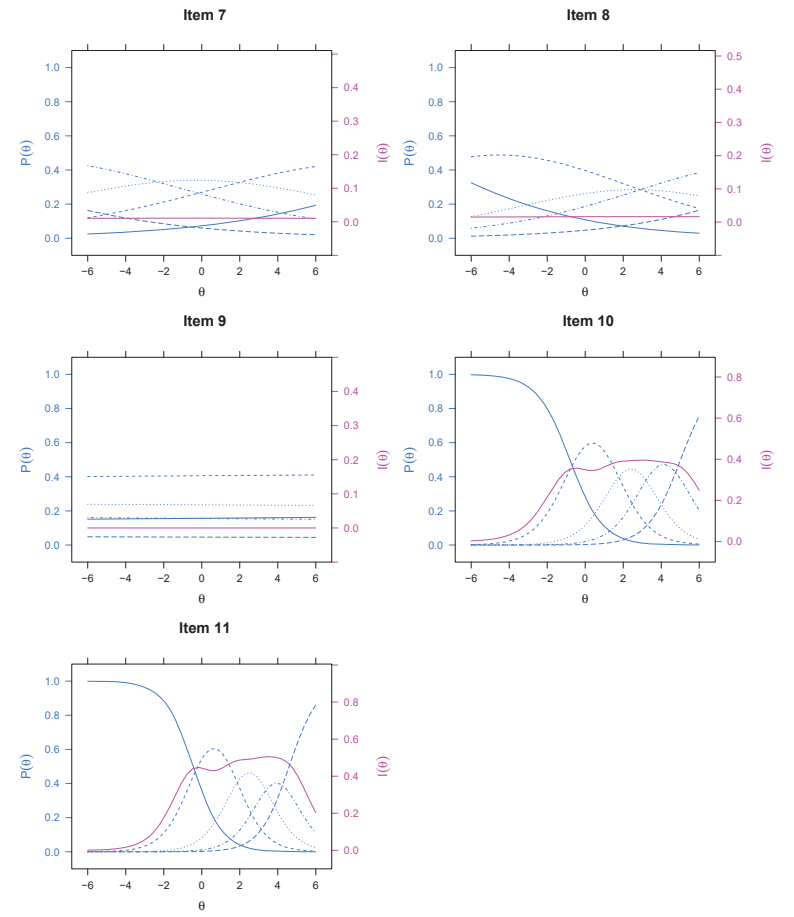
1.D Item information - All in one Graph



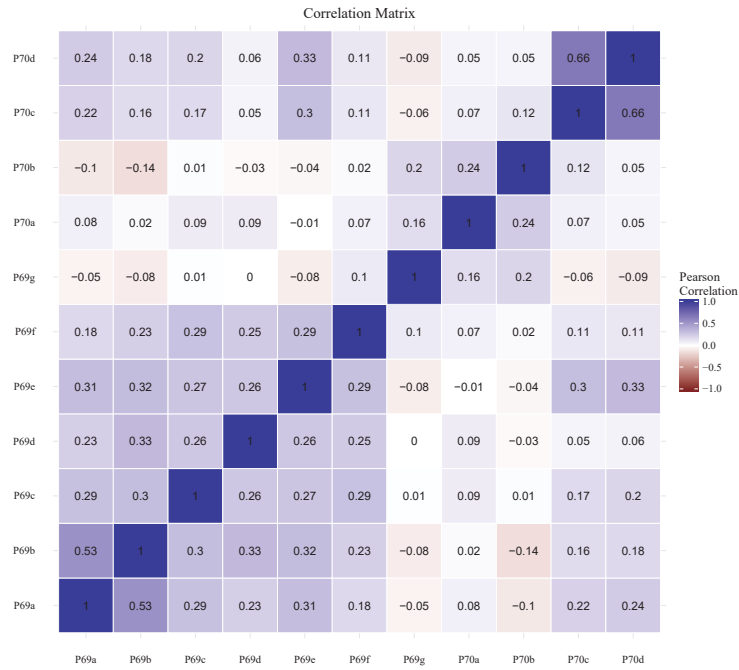
1.E Item information & SE - plus Item Category Thresholds



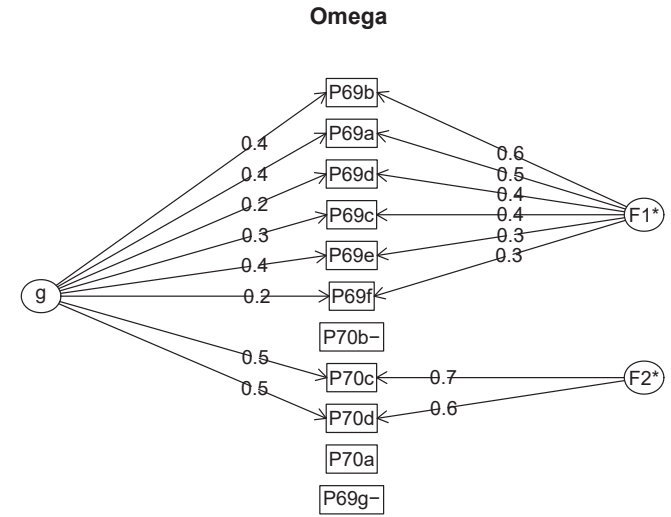
1.E Item information & SE - plus Item Category Thresholds



1.F Correlation Matrix



1.G Dimensionality



```

Omega
Call: psych::omega(m = X1, nfactors = 2)
Alpha:          0.64
G.6:            0.69
Omega Hierarchical: 0.36
Omega H asymptotic: 0.5
Omega Total     0.71
  
```

```

Schmid Leiman Factor loadings greater than 0.2
      g  F1*  F2*  h2  u2  p2
P69a 0.41  0.51      0.43 0.57 0.39
P69b 0.41  0.60      0.53 0.47 0.31
P69c 0.31  0.36      0.23 0.77 0.41
P69d 0.24  0.40      0.22 0.78 0.25
P69e 0.39  0.34      0.30 0.70 0.50
P69f 0.23  0.31      0.15 0.85 0.36
P69g- 0.01  0.99 0.51
P70a 0.01  0.99 0.50
P70b- 0.04  0.96 0.00
P70c 0.47      0.67 0.67 0.33 0.33
P70d 0.48      0.64 0.64 0.36 0.36
  
```

```

With eigenvalues of:
      g  F1*  F2*
  
```

1.15 1.15 0.94

general/max 1 max/min = 1.23
mean percent general = 0.36 with sd = 0.14 and cv of 0.41
Explained Common Variance of the general factor = 0.36

The degrees of freedom are 34 and the fit is 0.27
The number of observations was 1423 with Chi Square = 375.45 with prob < 3.7e-59
The root mean square of the residuals is 0.06
The df corrected root mean square of the residuals is 0.08
RMSEA index = 0.084 and the 90 % confidence intervals are 0.076 0.092
BIC = 128.6

Compare this with the adequacy of just a general factor and no group factors
The degrees of freedom for just the general factor are 44 and the fit is 0.98
The number of observations was 1423 with Chi Square = 1386.37 with prob < 8.3e-262
The root mean square of the residuals is 0.14
The df corrected root mean square of the residuals is 0.15

RMSEA index = 0.147 and the 90 % confidence intervals are 0.14 0.153
BIC = 1066.9

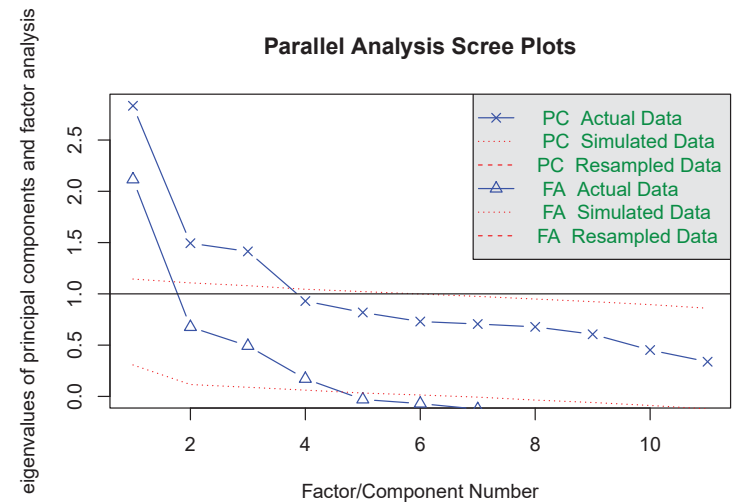
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.65	0.72	0.75
Multiple R square of scores with factors	0.42	0.52	0.56
Minimum correlation of factor score estimates	-0.15	0.04	0.12

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.71	0.68	0.58
Omega general for total scores and subscales	0.36	0.24	0.21
Omega group for total scores and subscales	0.35	0.44	0.36

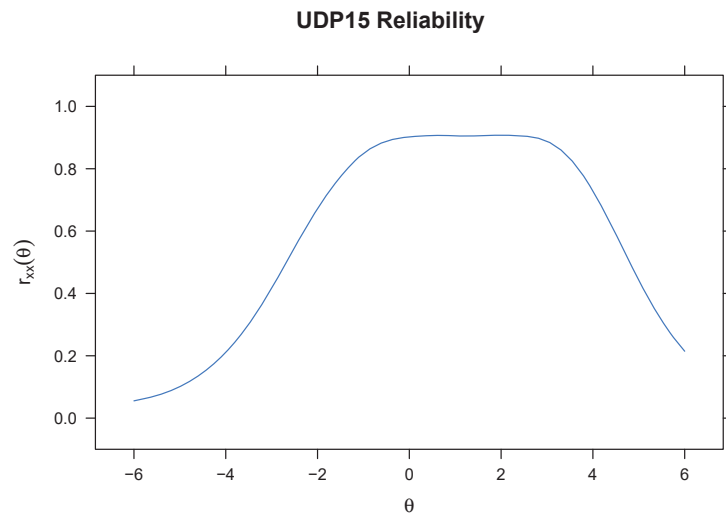
1.H Dimensionality [2]



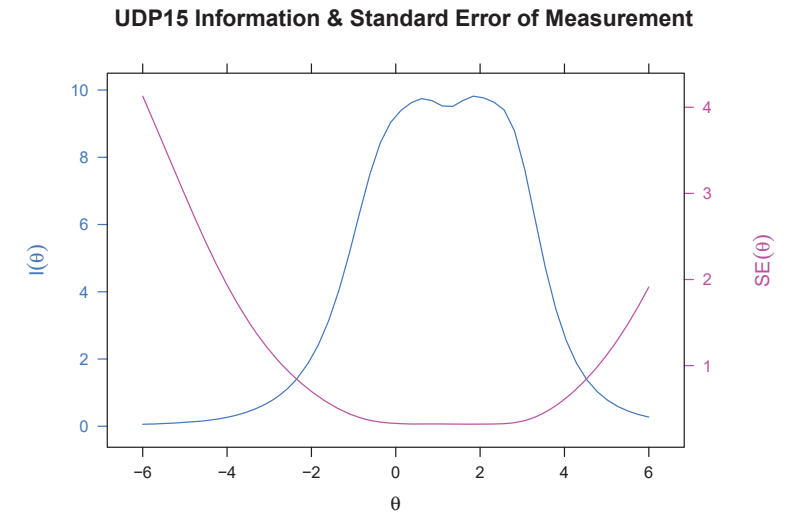
Parallel analysis suggests that the number of factors = 4 and the number of components = 3

2. UDP15 [1038 valid cases]

2.A Reliability



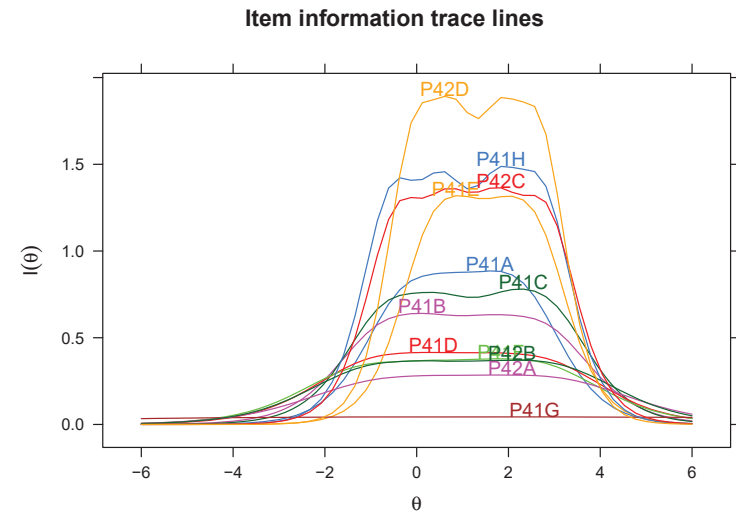
2.B Information & Standard Error of Measurement



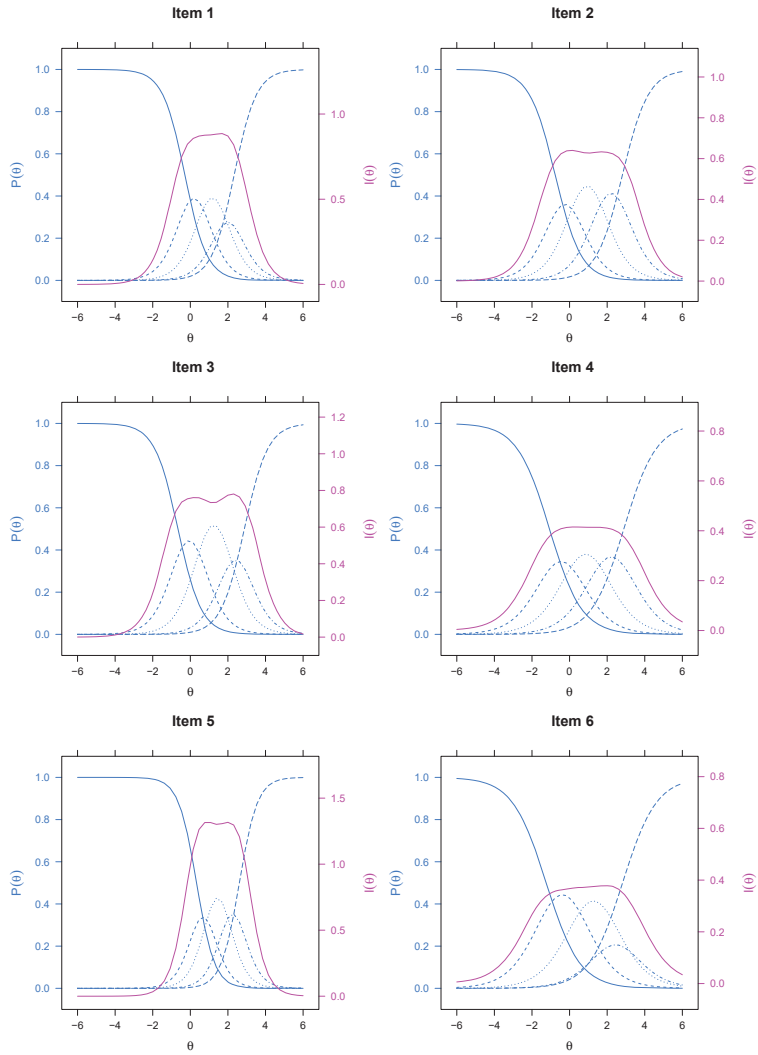
2.C Estimated total scores per level of the latent construct

	total.score	theta
1	12.53284	-6
2	12.73185	-5
3	13.05447	-4
4	13.68887	-3
5	15.13082	-2
6	18.52418	-1
7	25.24511	0
8	34.18263	1
9	43.53653	2
10	51.86206	3
11	56.38005	4
12	58.10402	5
13	58.82328	6

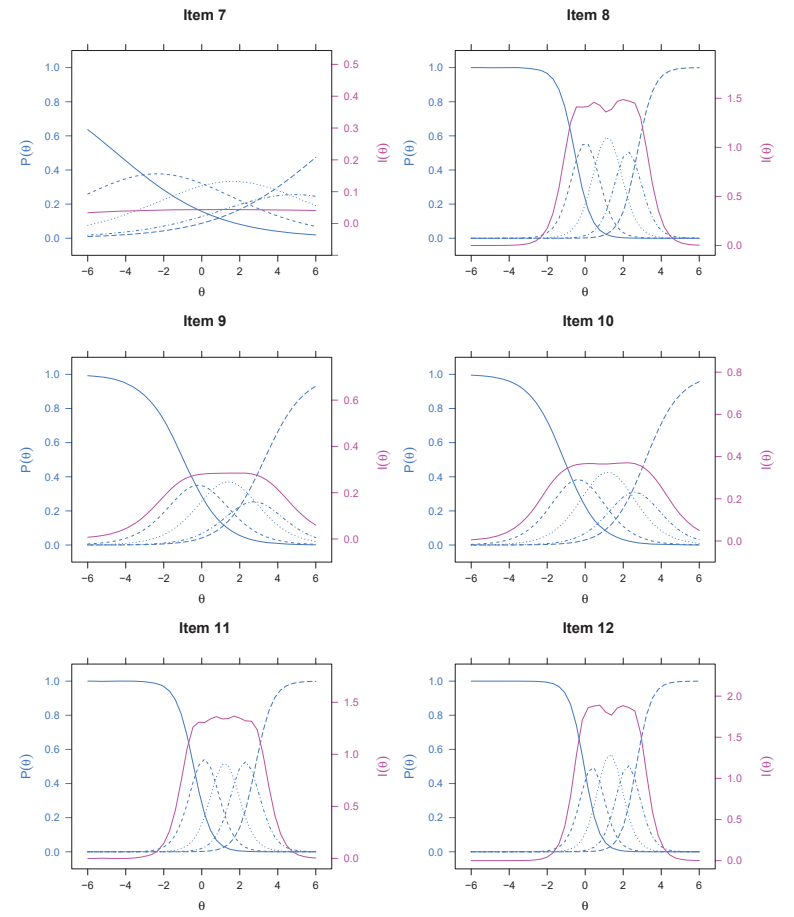
2.D Item information - All in one Graph



2.E Item information & SE - plus Item Category Thresholds



2.E Item information & SE - plus Item Category Thresholds



g F1* F2*
2.86 0.95 0.76

general/max 3.03 max/min = 1.24
mean percent general = 0.6 with sd = 0.1 and cv of 0.17
Explained Common Variance of the general factor = 0.63

The degrees of freedom are 43 and the fit is 0.23
The number of observations was 1038 with Chi Square = 239.65 with prob < 4e-29
The root mean square of the residuals is 0.04
The df corrected root mean square of the residuals is 0.06
RMSEA index = 0.067 and the 90 % confidence intervals are 0.058 0.075
BIC = -58.99

Compare this with the adequacy of just a general factor and no group factors
The degrees of freedom for just the general factor are 54 and the fit is 0.82
The number of observations was 1038 with Chi Square = 844.6 with prob < 1.9e-142
The root mean square of the residuals is 0.11
The df corrected root mean square of the residuals is 0.12

RMSEA index = 0.119 and the 90 % confidence intervals are 0.112 0.126
BIC = 469.57

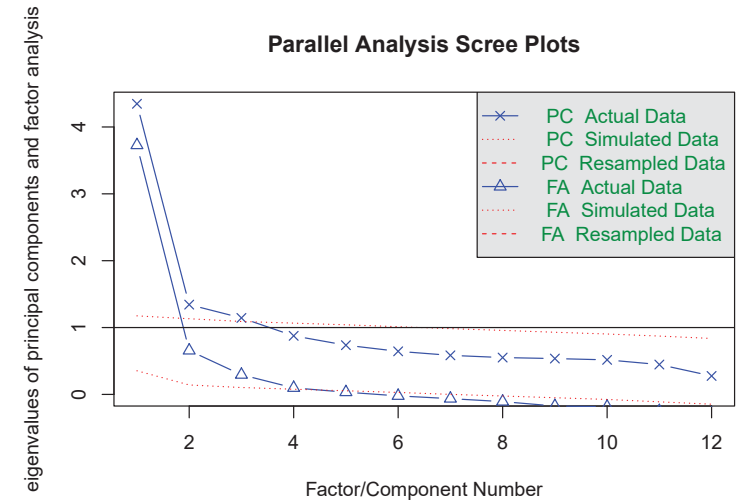
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.82	0.64	0.66
Multiple R square of scores with factors	0.67	0.41	0.43
Minimum correlation of factor score estimates	0.35	-0.18	-0.13

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.85	0.78	0.73
Omega general for total scores and subscales	0.63	0.51	0.45
Omega group for total scores and subscales	0.19	0.28	0.28

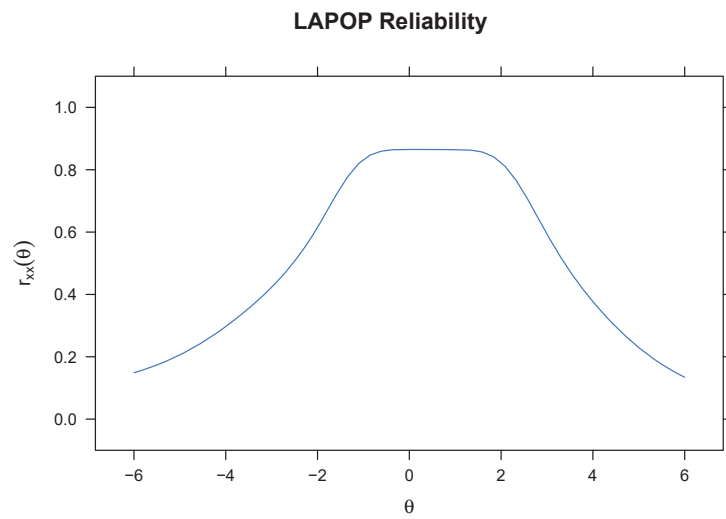
2.H Dimensionality [2]



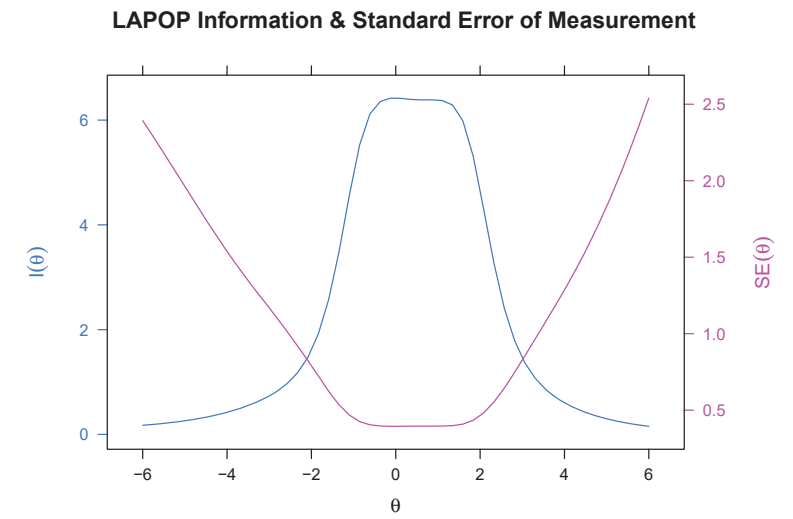
Parallel analysis suggests that the number of factors = 4 and the number of components = 3

3. LAPOP [28714 valid cases] [Aggregate across countries]

3.A Reliability



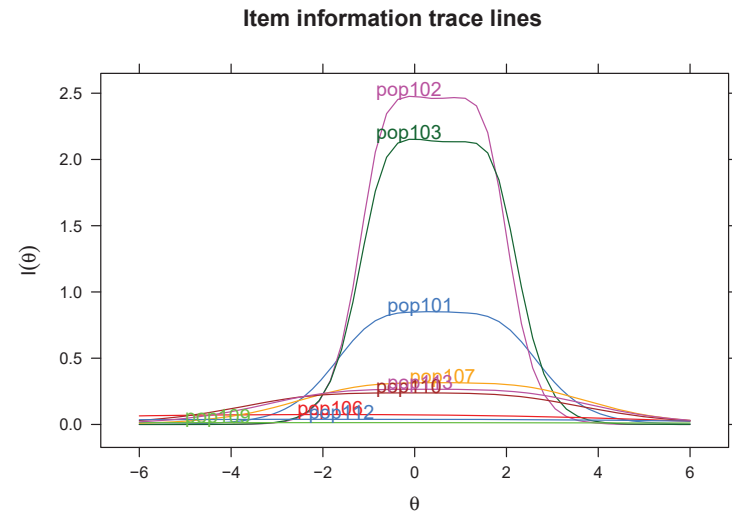
3.B Information & Standard Error of Measurement



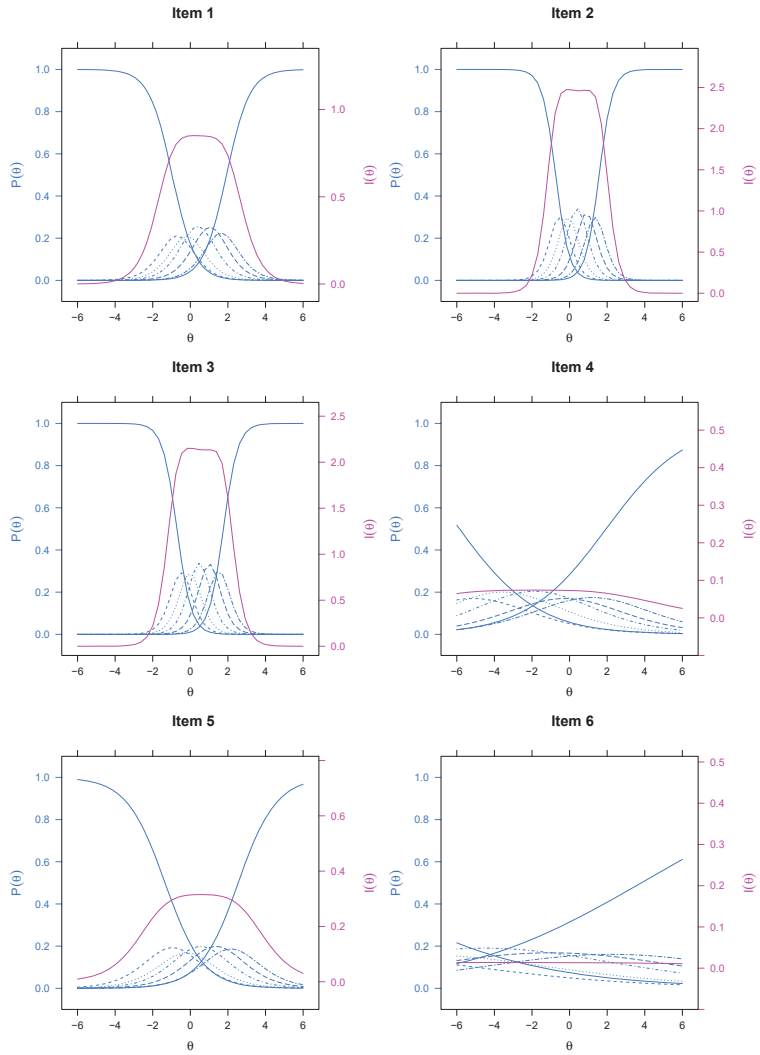
3.C Estimated total scores per level of the latent construct

	total.score	theta
1	14.28572	-6
2	15.43037	-5
3	16.91375	-4
4	18.95460	-3
5	21.94185	-2
6	26.96392	-1
7	35.35312	0
8	44.62120	1
9	52.40397	2
10	56.68677	3
11	58.91562	4
12	60.19661	5
13	60.97479	6

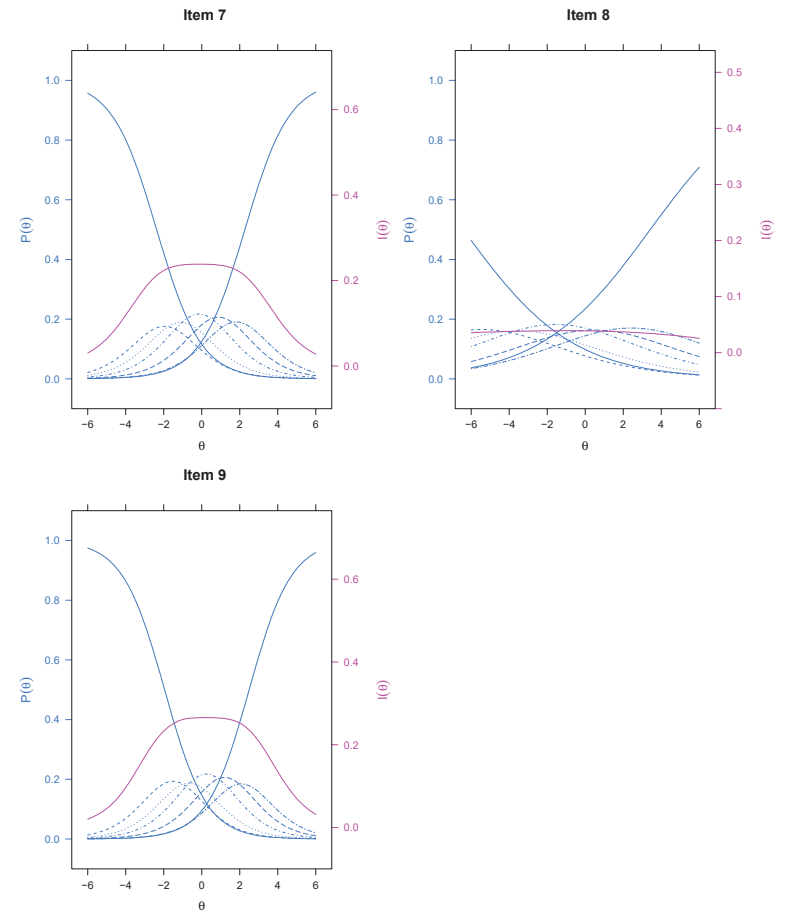
3.D Item information - All in one Graph



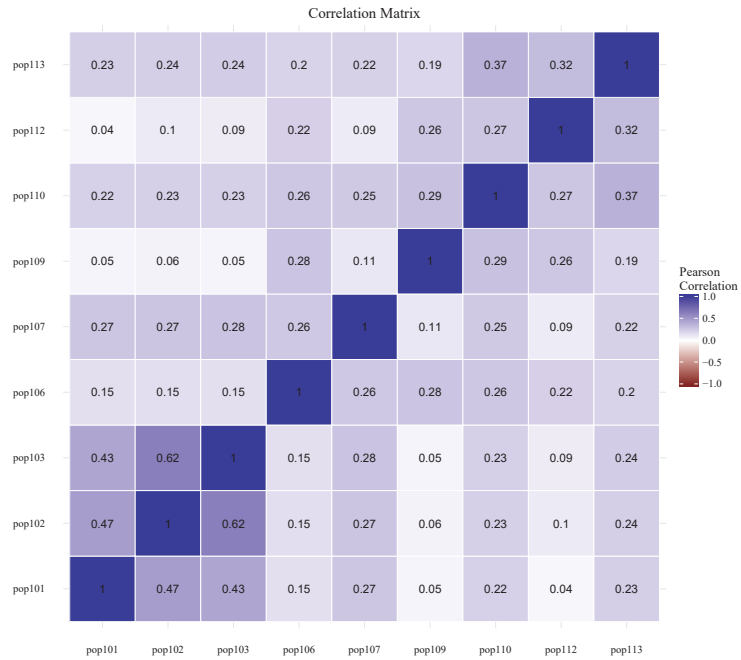
3.E Item information & SE - plus Item Category Thresholds



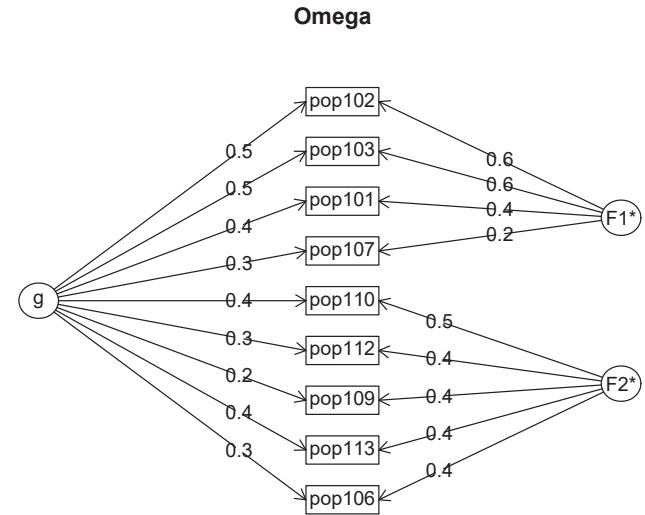
3.E Item information & SE - plus Item Category Thresholds



3.F Correlation Matrix



3.G Dimensionality



```

Omega
Call: psych::omega(m = X3, nfactors = 2)
Alpha:          0.72
G.6:            0.74
Omega Hierarchical: 0.42
Omega H asymptotic: 0.54
Omega Total     0.77
  
```

Schmid Leiman Factor loadings greater than 0.2

	g	F1*	F2*	h2	u2	p2
pop101	0.38	0.44		0.34	0.66	0.42
pop102	0.48	0.64		0.65	0.35	0.36
pop103	0.47	0.61		0.58	0.42	0.37
pop106	0.30		0.36	0.22	0.78	0.40
pop107	0.32	0.22	0.20	0.19	0.81	0.54
pop109	0.24		0.41	0.24	0.76	0.24
pop110	0.40		0.46	0.38	0.62	0.43
pop112	0.27		0.42	0.25	0.75	0.28
pop113	0.38		0.39	0.31	0.69	0.47

```

With eigenvalues of:
  g  F1*  F2*
1.22 1.05 0.88
  
```

general/max 1.16 max/min = 1.19
 mean percent general = 0.39 with sd = 0.09 and cv of 0.24
 Explained Common Variance of the general factor = 0.39

The degrees of freedom are 19 and the fit is 0.06
 The number of observations was 28714 with Chi Square = 1862.85 with prob < 0
 The root mean square of the residuals is 0.03
 The df corrected root mean square of the residuals is 0.04
 RMSEA index = 0.058 and the 90 % confidence intervals are 0.056 0.06
 BIC = 1667.81

Compare this with the adequacy of just a general factor and no group factors
 The degrees of freedom for just the general factor are 27 and the fit is 0.67
 The number of observations was 28714 with Chi Square = 19227.61 with prob < 0
 The root mean square of the residuals is 0.14
 The df corrected root mean square of the residuals is 0.17

RMSEA index = 0.157 and the 90 % confidence intervals are 0.156 0.159
 BIC = 18950.45

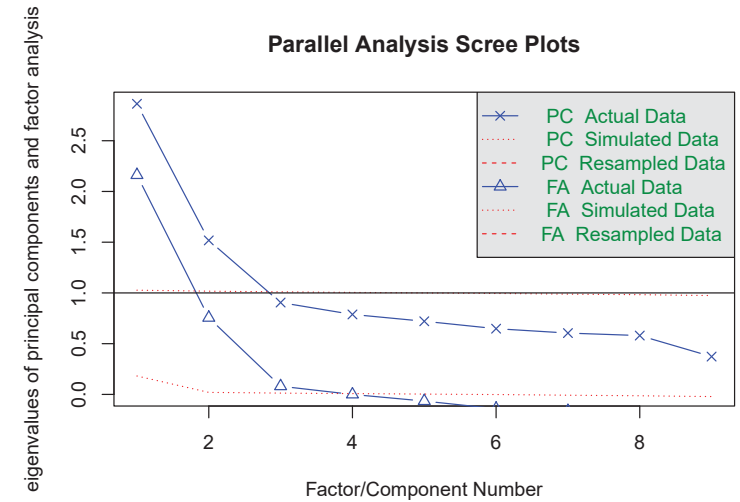
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.66	0.73	0.67
Multiple R square of scores with factors	0.43	0.53	0.45
Minimum correlation of factor score estimates	-0.14	0.07	-0.11

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.77	0.73	0.65
Omega general for total scores and subscales	0.42	0.31	0.24
Omega group for total scores and subscales	0.31	0.42	0.41

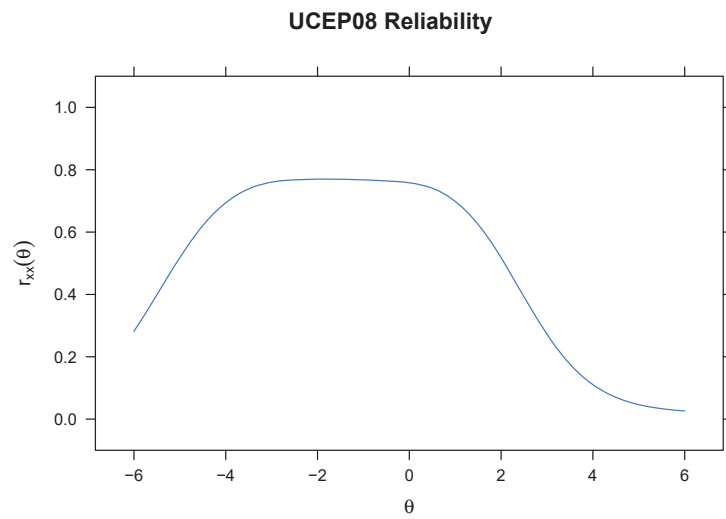
3.H Dimensionality [2]



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

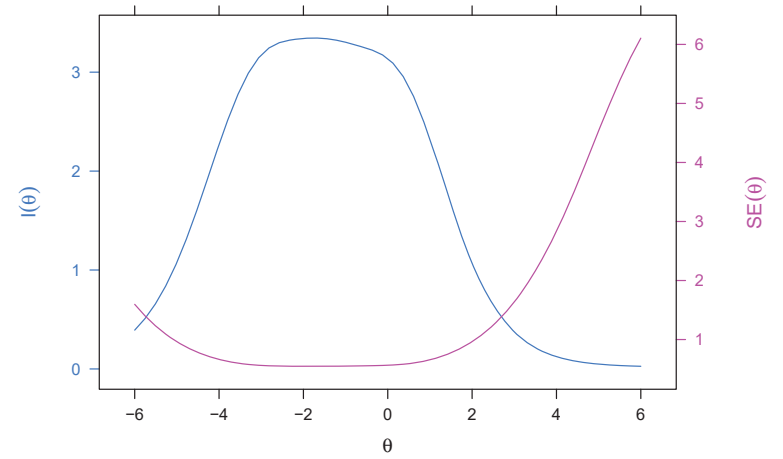
4. UCEP08 [882 valid cases]

4.A Reliability



4.B Information & Standard Error of Measurement

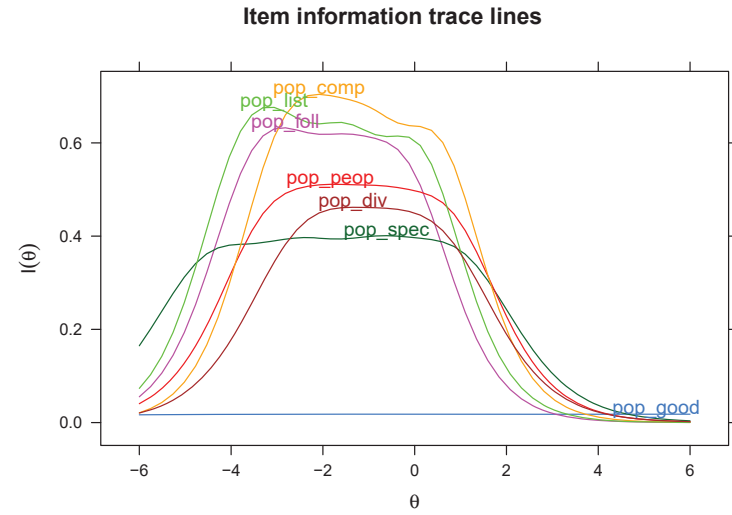
UCEP08 Information & Standard Error of Measurement



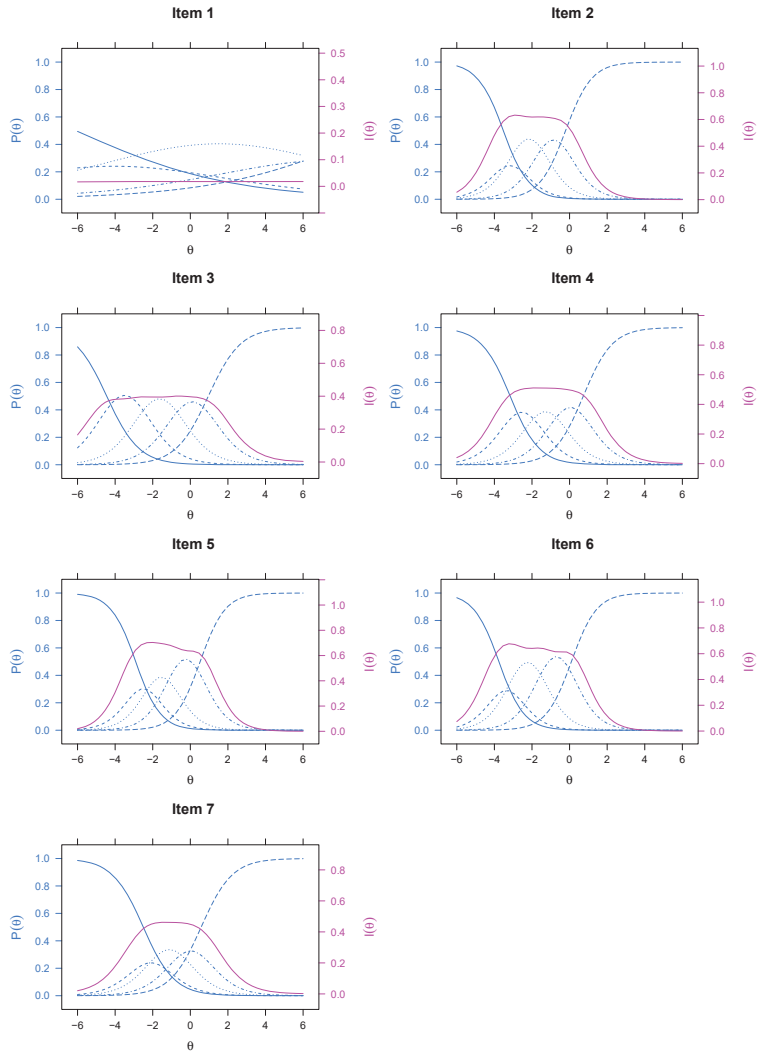
4.C Estimated total scores per level of the latent construct

	total.score	theta
1	8.177836	-6
2	8.980746	-5
3	10.852236	-4
4	14.267325	-3
5	18.664821	-2
6	23.167469	-1
7	27.234505	0
8	30.371688	1
9	32.148277	2
10	32.925741	3
11	33.276426	4
12	33.485953	5
13	33.651307	6

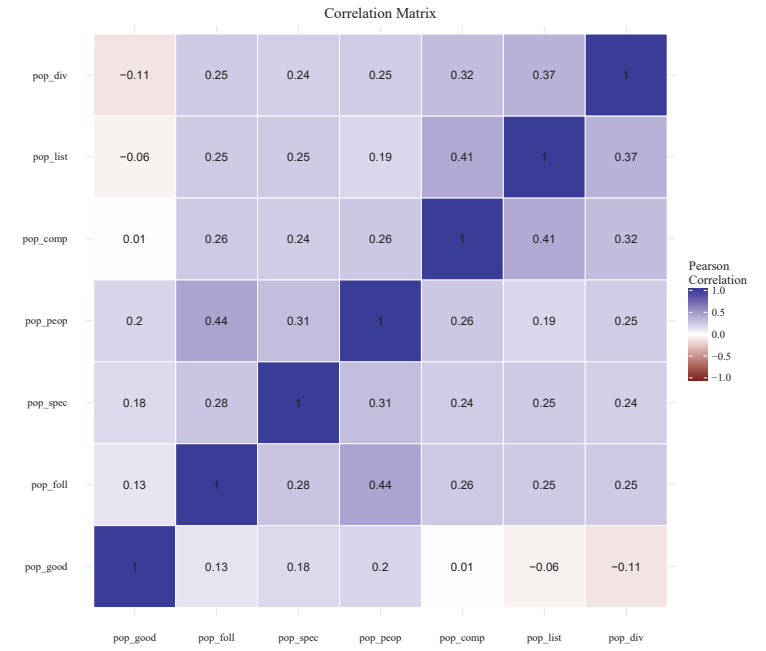
4.D Item information - All in one Graph



4.E Item information & SE - plus Item Category Thresholds

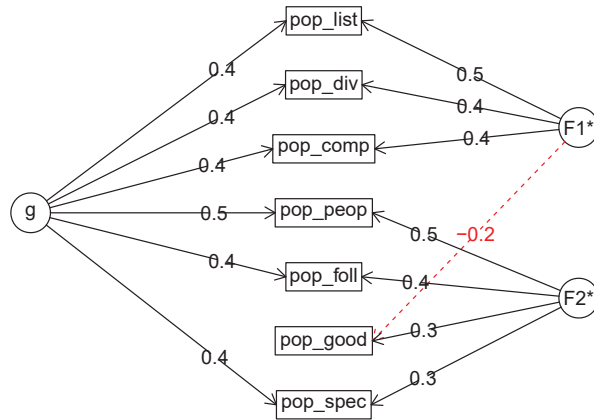


4.F Correlation Matrix



4.G Dimensionality

Omega



```
Omega
Call: psych::omega(m = X4, nfactors = 2)
Alpha: 0.67
G.6: 0.67
Omega Hierarchical: 0.43
Omega H asymptotic: 0.6
Omega Total 0.72
```

```
Schmid Leiman Factor loadings greater than 0.2
  g  F1*  F2*  h2  u2  p2
pop_good -0.23  0.34  0.18  0.82  0.05
pop_foll  0.45      0.40  0.37  0.63  0.54
pop_spec  0.38      0.29  0.25  0.75  0.58
pop_peop  0.47      0.51  0.49  0.51  0.45
pop_comp  0.43  0.39      0.35  0.65  0.53
pop_list  0.44  0.51      0.45  0.55  0.42
pop_div   0.40  0.41      0.33  0.67  0.48
```

```
With eigenvalues of:
  g  F1*  F2*
1.11 0.67 0.64
```

```
general/max 1.65  max/min = 1.05
mean percent general = 0.44  with sd = 0.18 and cv of 0.41
```

Explained Common Variance of the general factor = 0.46

The degrees of freedom are 8 and the fit is 0.04
 The number of observations was 882 with Chi Square = 31.72 with prob < 1e-04
 The root mean square of the residuals is 0.03
 The df corrected root mean square of the residuals is 0.05
 RMSEA index = 0.058 and the 90 % confidence intervals are 0.038 0.08
 BIC = -22.54

Compare this with the adequacy of just a general factor and no group factors
 The degrees of freedom for just the general factor are 14 and the fit is 0.29
 The number of observations was 882 with Chi Square = 258.43 with prob < 5.2e-47
 The root mean square of the residuals is 0.12
 The df corrected root mean square of the residuals is 0.15

RMSEA index = 0.141 and the 90 % confidence intervals are 0.126 0.156
 BIC = 163.48

Measures of factor score adequacy

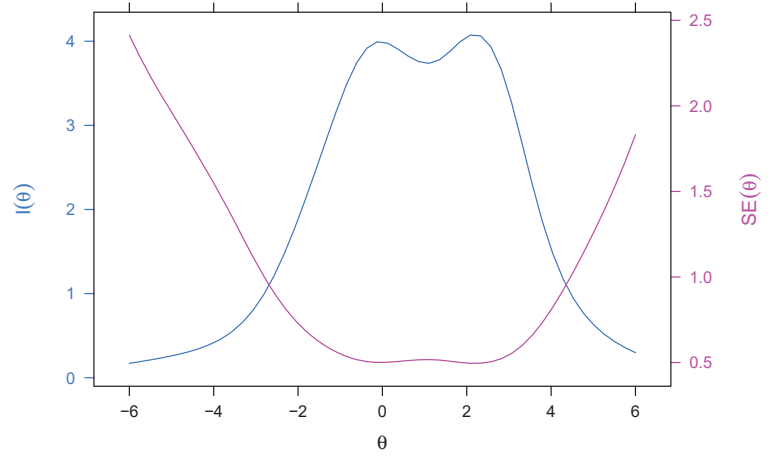
	g	F1*	F2*
Correlation of scores with factors	0.67	0.63	0.62
Multiple R square of scores with factors	0.45	0.39	0.39
Minimum correlation of factor score estimates	-0.09	-0.22	-0.23

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.72	0.64	0.61
Omega general for total scores and subscales	0.43	0.31	0.27
Omega group for total scores and subscales	0.25	0.33	0.34

5.B Information & Standard Error of Measurement

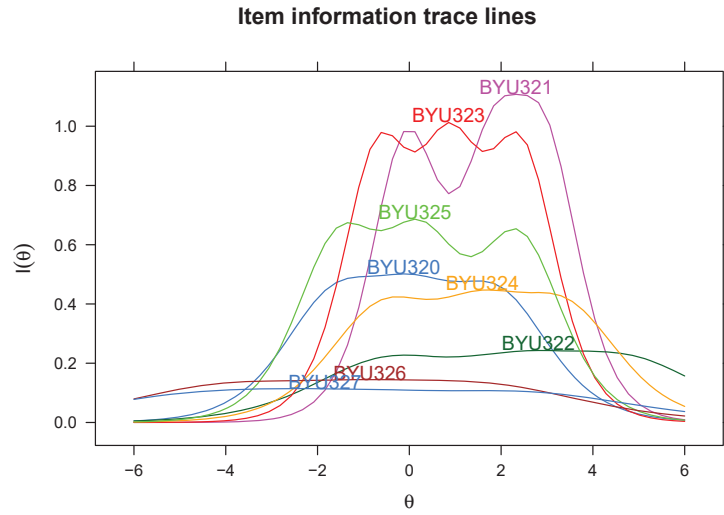
CCES08 Information & Standard Error of Measurement



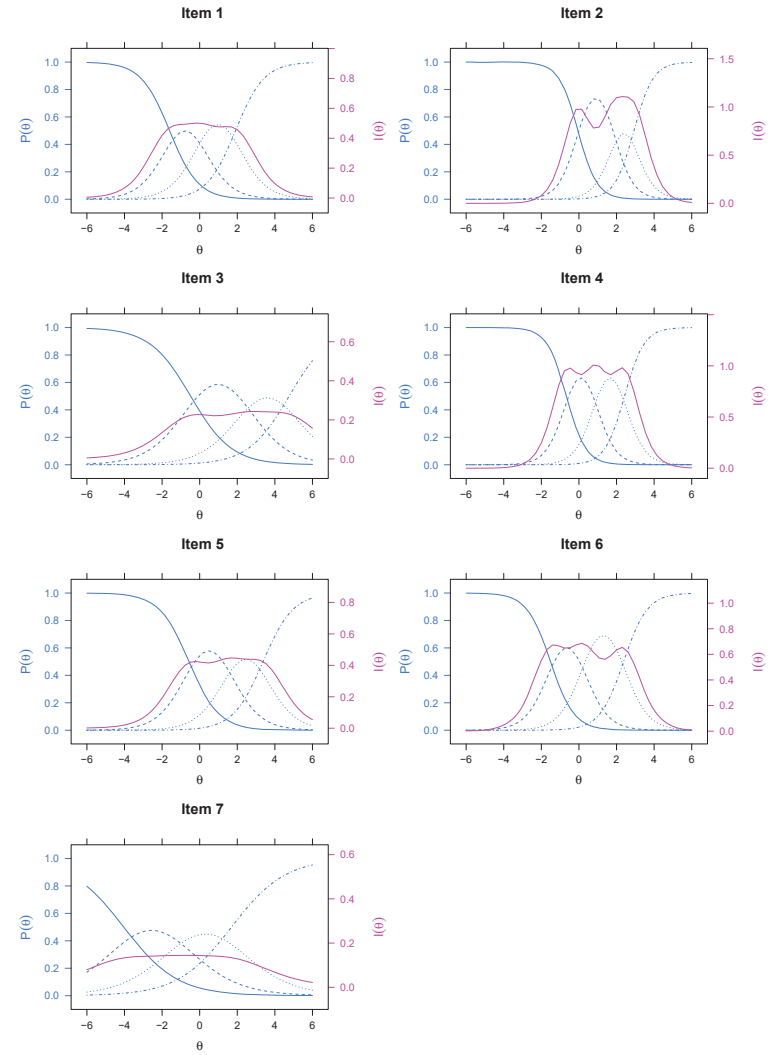
5.C Estimated total scores per level of the latent construct

	total.score	theta
1	8.573111	-6
2	8.949493	-5
3	9.493240	-4
4	10.310919	-3
5	11.728654	-2
6	14.147142	-1
7	17.477353	0
8	20.980198	1
9	24.476772	2
10	27.806912	3
11	29.925290	4
12	30.965084	5
13	31.495275	6

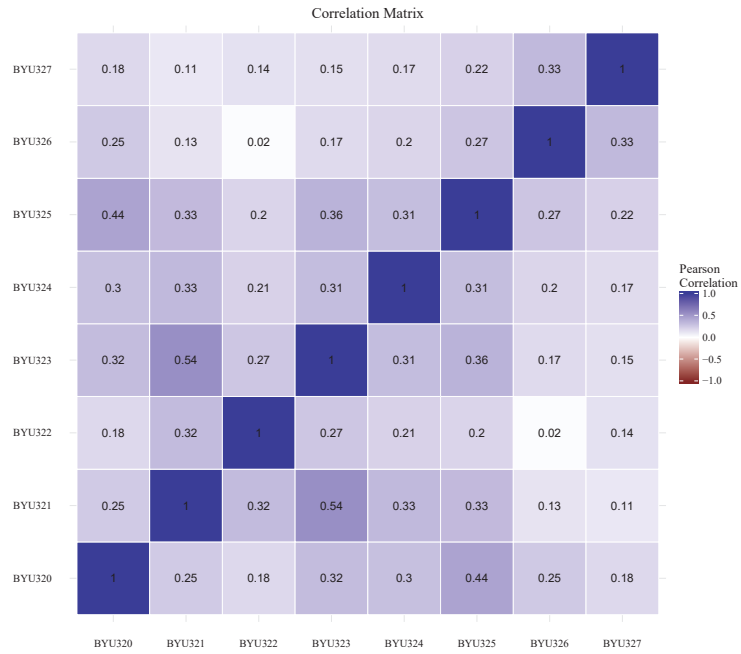
5.D Item information - All in one Graph



5.E Item information & SE - plus Item Category Thresholds

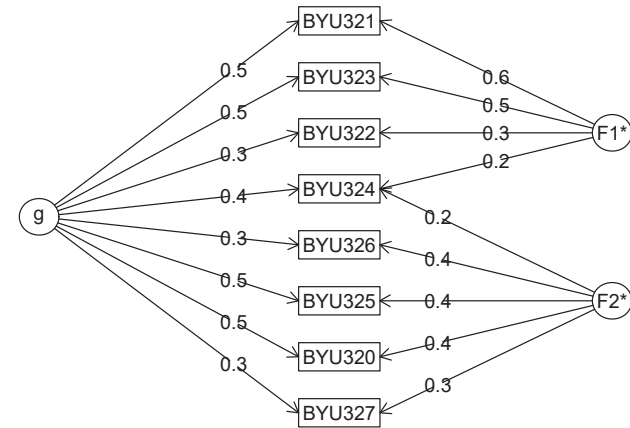


5.F Correlation Matrix



5.G Dimensionality

Omega



```

Omega
Call: psych::omega(m = X5, nfactors = 2)
Alpha: 0.73
G.6: 0.72
Omega Hierarchical: 0.5
Omega H asymptotic: 0.66
Omega Total 0.76
  
```

```

Schmid Leiman Factor loadings greater than 0.2
      g  F1*  F2*  h2  u2  p2
BYU320 0.45      0.36 0.34 0.66 0.59
BYU321 0.53 0.57      0.60 0.40 0.46
BYU322 0.30 0.28      0.17 0.83 0.54
BYU323 0.53 0.45      0.49 0.51 0.57
BYU324 0.41 0.21 0.21 0.26 0.74 0.66
BYU325 0.51      0.37 0.41 0.59 0.62
BYU326 0.32      0.42 0.29 0.71 0.37
BYU327 0.28      0.34 0.20 0.80 0.39
  
```

```

With eigenvalues of:
      g  F1*  F2*
1.46 0.69 0.61

general/max 2.12  max/min = 1.13
  
```


mean percent general = 0.52 with sd = 0.11 and cv of 0.2
 Explained Common Variance of the general factor = 0.53

The degrees of freedom are 13 and the fit is 0.06
 The number of observations was 949 with Chi Square = 60.15 with prob < 4.9e-08
 The root mean square of the residuals is 0.03
 The df corrected root mean square of the residuals is 0.05
 RMSEA index = 0.062 and the 90 % confidence intervals are 0.047 0.078
 BIC = -28.97

Compare this with the adequacy of just a general factor and no group factors
 The degrees of freedom for just the general factor are 20 and the fit is 0.32
 The number of observations was 949 with Chi Square = 306.22 with prob < 4.3e-53
 The root mean square of the residuals is 0.11
 The df corrected root mean square of the residuals is 0.13

RMSEA index = 0.123 and the 90 % confidence intervals are 0.111 0.135
 BIC = 169.12

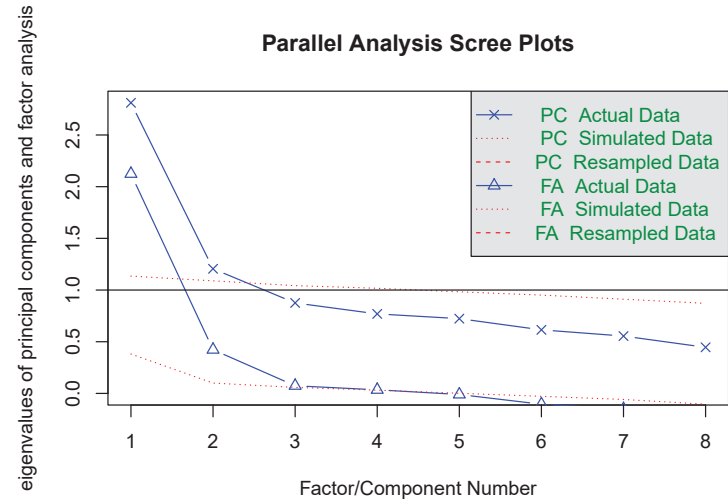
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.72	0.64	0.59
Multiple R square of scores with factors	0.52	0.41	0.35
Minimum correlation of factor score estimates	0.05	-0.19	-0.30

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.76	0.68	0.63
Omega general for total scores and subscales	0.50	0.39	0.33
Omega group for total scores and subscales	0.20	0.28	0.30

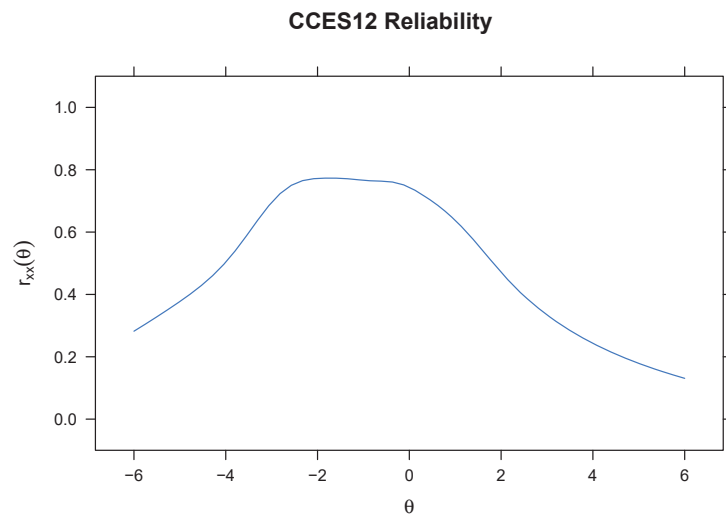
5.H Dimensionality [2]



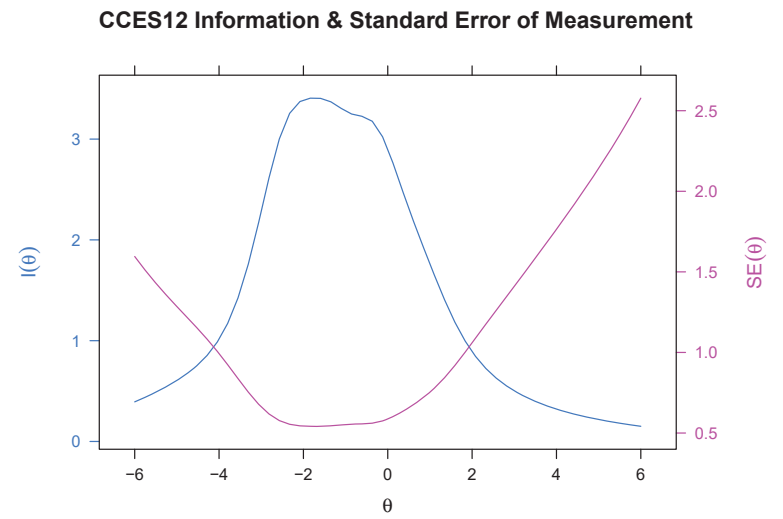
Parallel analysis suggests that the number of factors = 4 and the number of components = 2

6. CCES12 [835 valid cases]

6.A Reliability



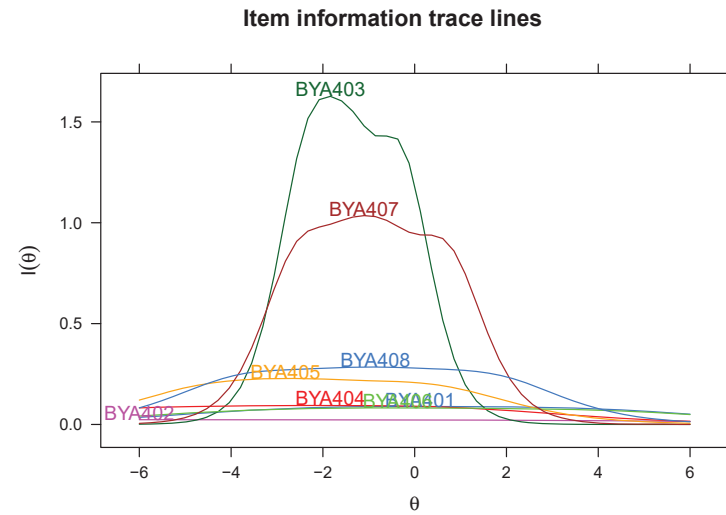
6.B Information & Standard Error of Measurement



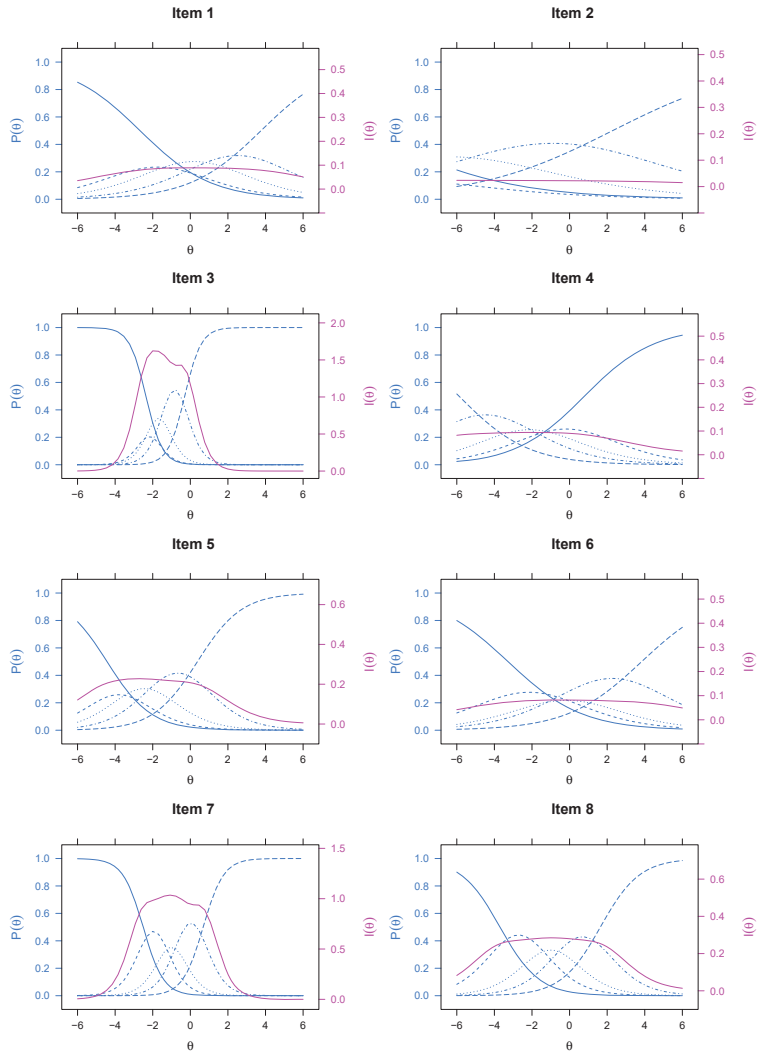
6.C Estimated total scores per level of the latent construct

	total.score	theta
1	14.17152	-6
2	14.84961	-5
3	15.94215	-4
4	17.78991	-3
5	21.06141	-2
6	24.88132	-1
7	28.19115	0
8	30.62662	1
9	32.22446	2
10	33.28152	3
11	34.03609	4
12	34.59420	5
13	35.00784	6

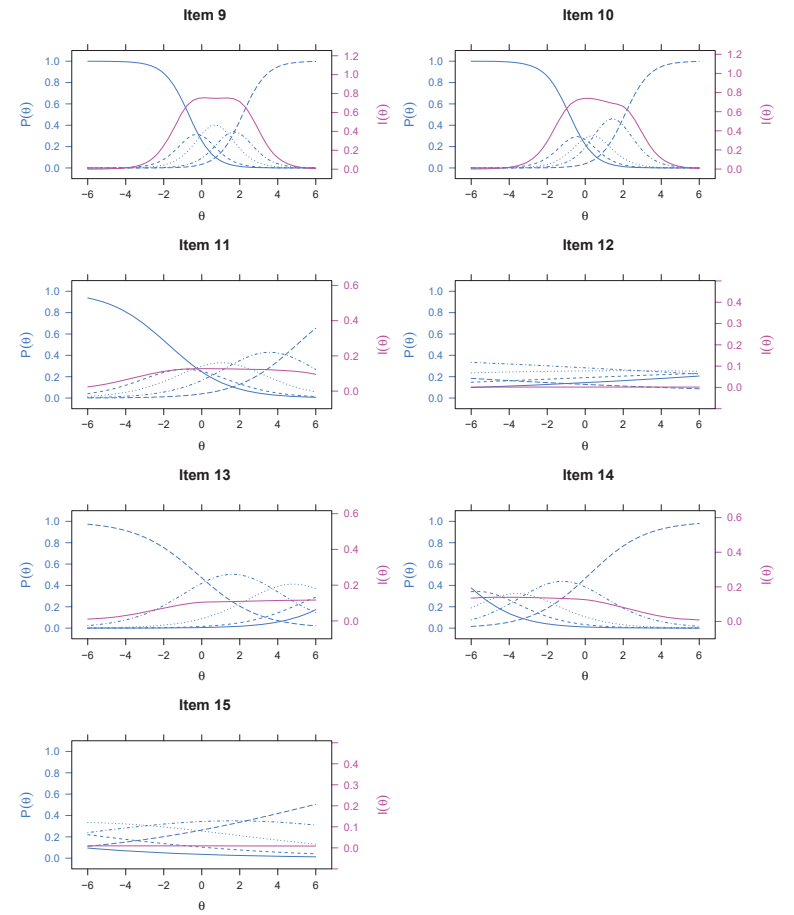
6.D Item information - All in one Graph



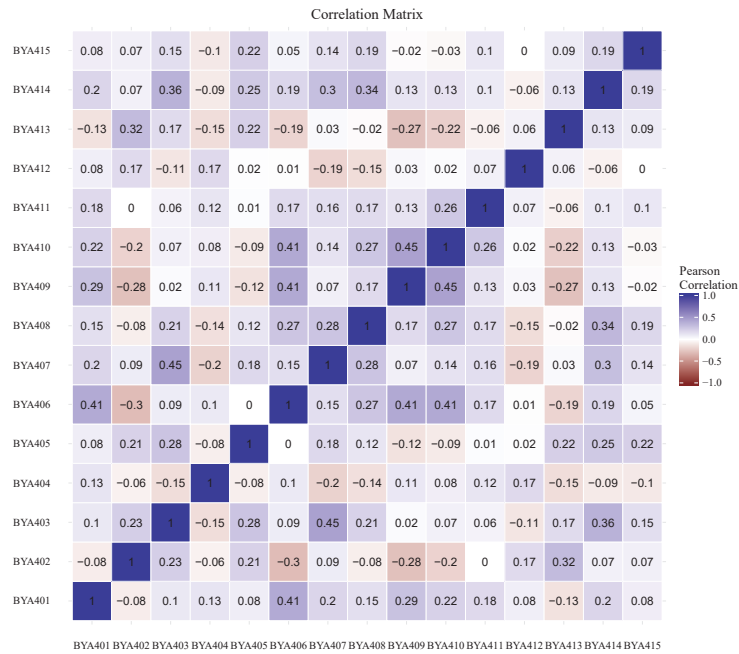
6.E Item information & SE - plus Item Category Thresholds



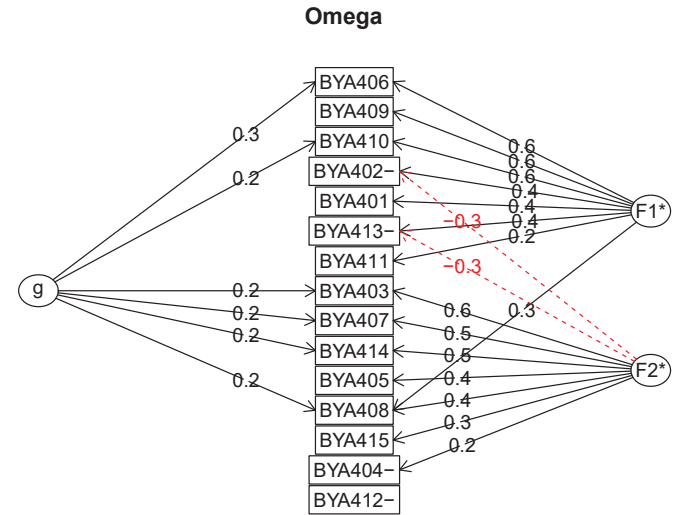
2.E Item information & SE - plus Item Category Thresholds



6.F Correlation Matrix



6.G Dimensionality



```

Omega
Call: psych::omega(m = X6, nfactors = 2)
Alpha:          0.64
G.6:            0.69
Omega Hierarchical: 0.13
Omega H asymptotic: 0.19
Omega Total     0.7
    
```

```

Schmid Leiman Factor loadings greater than 0.2
      g  F1*  F2*  h2  u2  p2
BYA401 0.20 0.40      0.23 0.77 0.17
BYA402- 0.43 -0.29 0.27 0.73 0.01
BYA403 0.20      0.62 0.43 0.57 0.09
BYA404- 0.24 0.09 0.91 0.01
BYA405      0.43 0.22 0.78 0.03
BYA406 0.25 0.63      0.47 0.53 0.14
BYA407 0.22      0.54 0.36 0.64 0.14
BYA408 0.22 0.28 0.37 0.27 0.73 0.19
BYA409 0.20 0.62      0.42 0.58 0.09
BYA410 0.22 0.58      0.39 0.61 0.12
BYA411      0.25      0.09 0.91 0.18
BYA412-      0.02 0.98 0.12
BYA413- 0.40 -0.28 0.24 0.76 0.01
BYA414 0.22      0.53 0.34 0.66 0.15
    
```

BYA415 0.30 0.10 0.90 0.09

With eigenvalues of:

g	F1*	F2*
0.42	1.85	1.67

general/max 0.23 max/min = 1.11
 mean percent general = 0.1 with sd = 0.06 and cv of 0.61
 Explained Common Variance of the general factor = 0.11

The degrees of freedom are 76 and the fit is 0.45
 The number of observations was 835 with Chi Square = 370.67 with prob < 2.4e-40
 The root mean square of the residuals is 0.05
 The df corrected root mean square of the residuals is 0.06
 RMSEA index = 0.069 and the 90 % confidence intervals are 0.061 0.075
 BIC = -140.61

Compare this with the adequacy of just a general factor and no group factors
 The degrees of freedom for just the general factor are 90 and the fit is 1.97
 The number of observations was 835 with Chi Square = 1627.49 with prob < 1.8e-280
 The root mean square of the residuals is 0.17
 The df corrected root mean square of the residuals is 0.18

RMSEA index = 0.144 and the 90 % confidence intervals are 0.137 0.149
 BIC = 1022.02

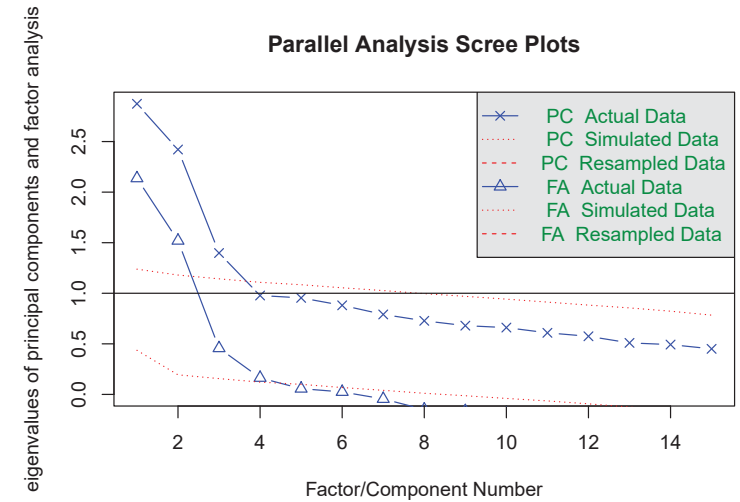
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.38	0.83	0.81
Multiple R square of scores with factors	0.15	0.69	0.66
Minimum correlation of factor score estimates	-0.70	0.38	0.32

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.70	0.72	0.62
Omega general for total scores and subscales	0.13	0.07	0.07
Omega group for total scores and subscales	0.56	0.65	0.55

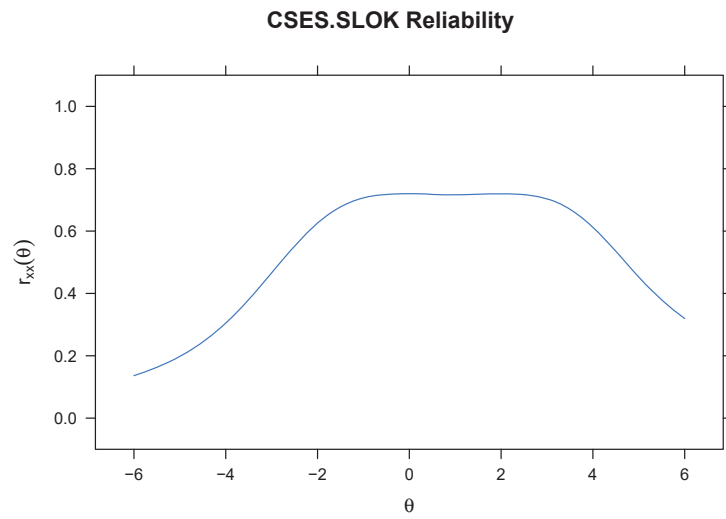
6.H Dimensionality [2]



Parallel analysis suggests that the number of factors = 4 and the number of components = 3

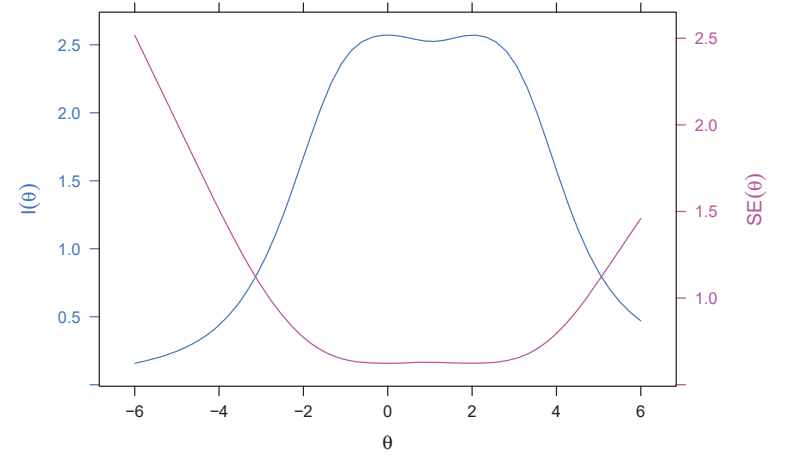
7. CSES.SLOK [879 valid cases]

7.A Reliability



7.B Information & Standard Error of Measurement

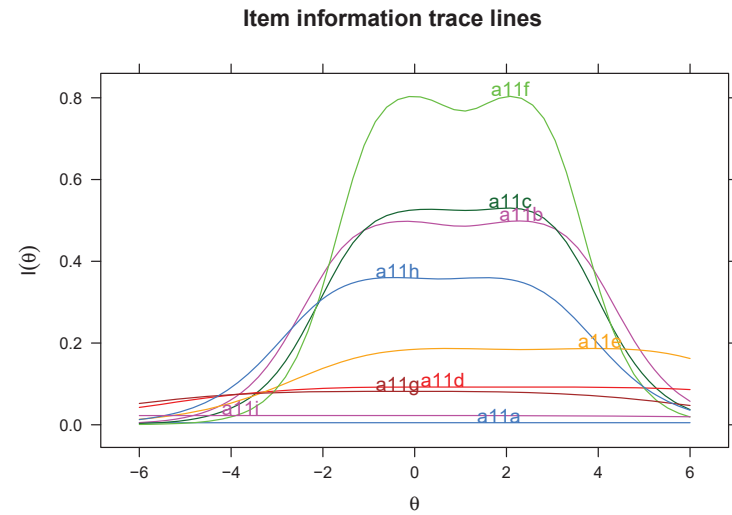
CSES.SLOK Information & Standard Error of Measurement



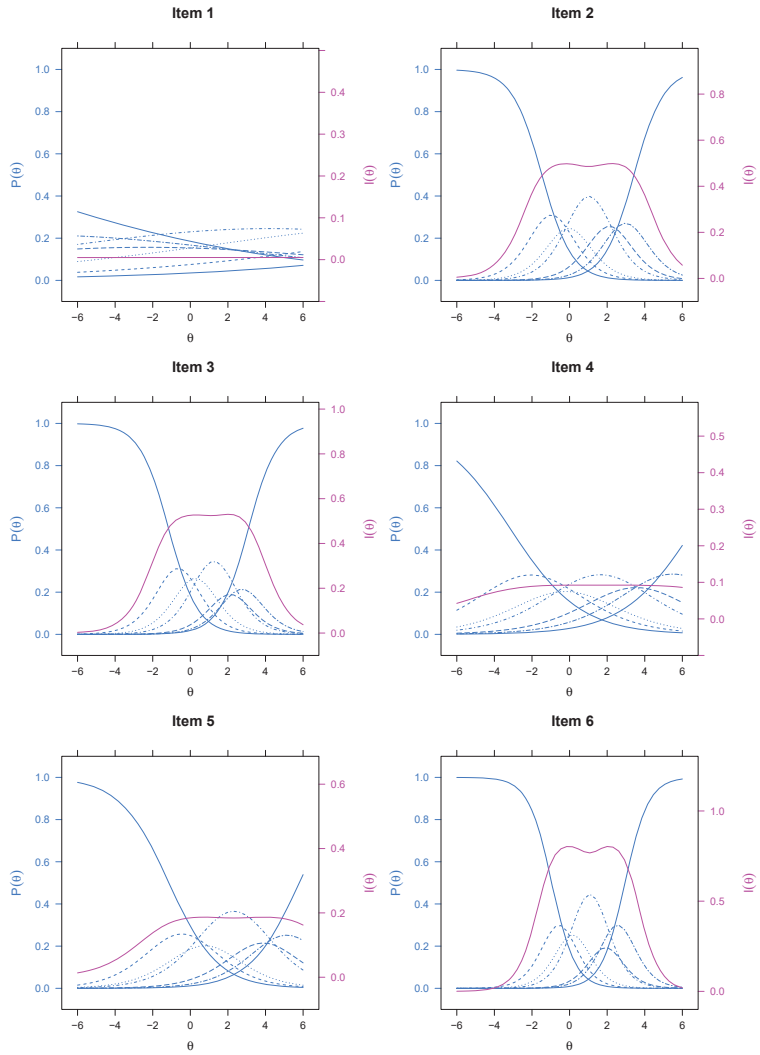
7.C Estimated total scores per level of the latent construct

	total.score	theta
1	16.03313	-6
2	16.69335	-5
3	17.65881	-4
4	19.16577	-3
5	21.67691	-2
6	25.68818	-1
7	30.98989	0
8	36.76602	1
9	42.62604	2
10	48.06312	3
11	52.08727	4
12	54.59131	5
13	56.16289	6

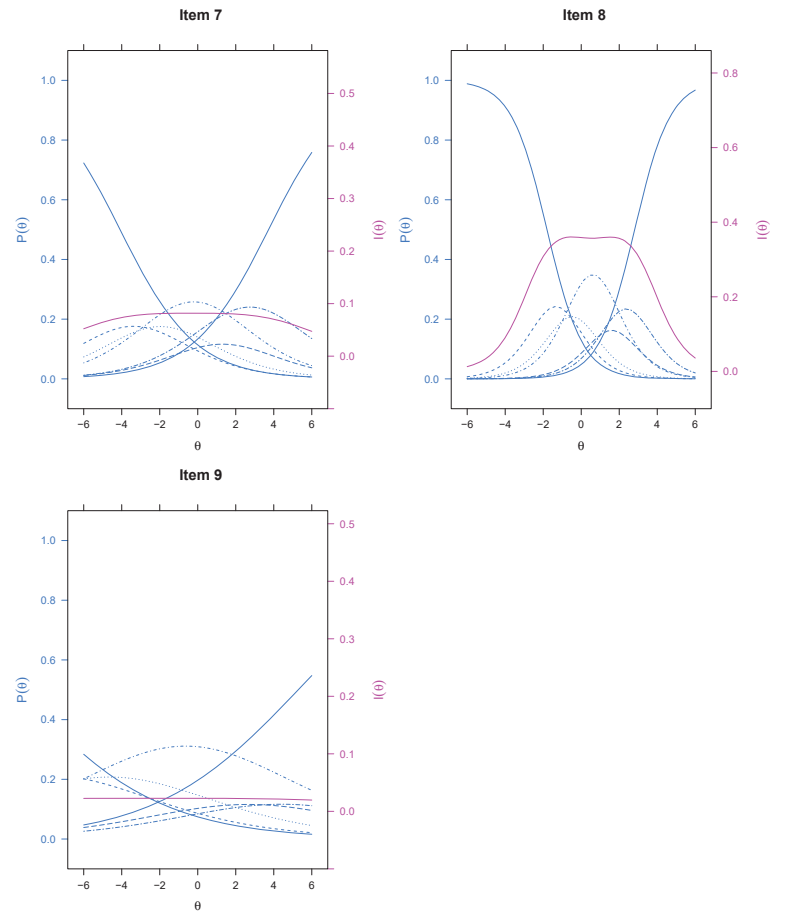
7.D Item information - All in one Graph



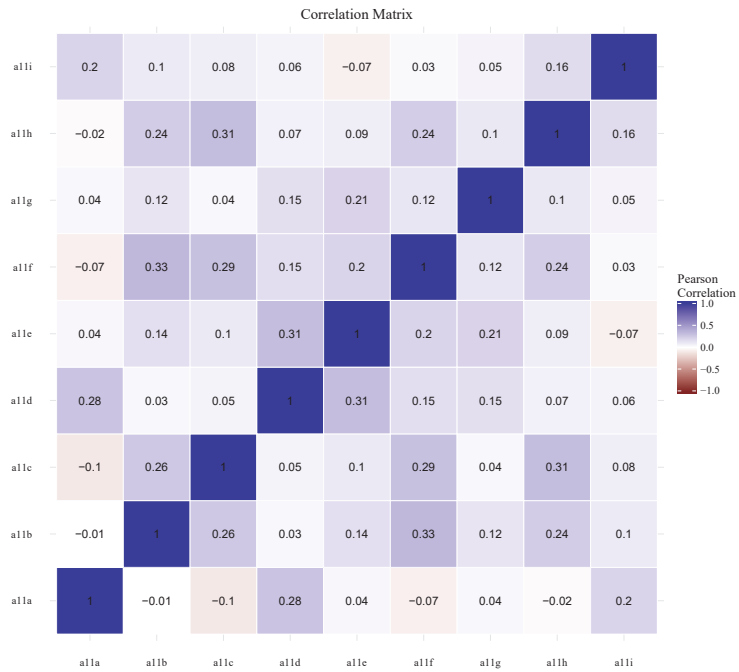
7.E Item information & SE - plus Item Category Thresholds



2.E Item information & SE - plus Item Category Thresholds

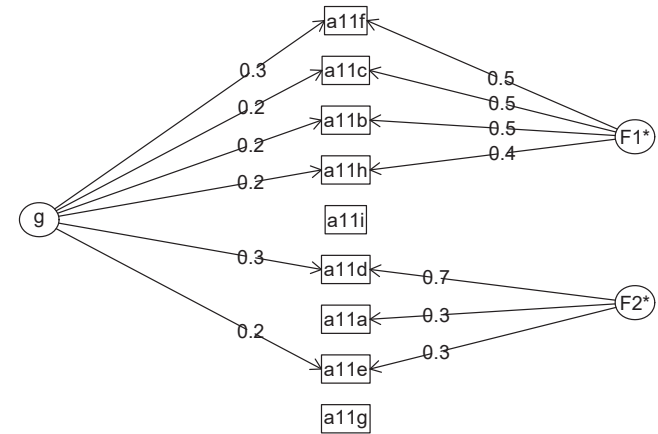


7.F Correlation Matrix



7.G Dimensionality

Omega



```
Omega
Call: psych::omega(m = X7, nfactores = 2)
Alpha:          0.55
G.6:            0.57
Omega Hierarchical: 0.18
Omega H asymptotic: 0.3
Omega Total     0.61
```

Schmid Leiman Factor loadings greater than 0.2

	g	F1*	F2*	h2	u2	p2
a11a		0.34	0.15	0.85	0.06	
a11b	0.22	0.48		0.28	0.72	0.17
a11c	0.21	0.49		0.29	0.71	0.15
a11d	0.34		0.71	0.62	0.38	0.19
a11e	0.24		0.31	0.19	0.81	0.30
a11f	0.27	0.51		0.34	0.66	0.22
a11g				0.07	0.93	0.31
a11h	0.20	0.43		0.23	0.77	0.18
a11i				0.02	0.98	0.30

```
With eigenvalues of:
g F1* F2*
0.42 1.00 0.76
```

general/max 0.42 max/min = 1.32
 mean percent general = 0.21 with sd = 0.08 and cv of 0.4
 Explained Common Variance of the general factor = 0.19

The degrees of freedom are 19 and the fit is 0.13
 The number of observations was 879 with Chi Square = 114.07 with prob < 1.4e-15
 The root mean square of the residuals is 0.05
 The df corrected root mean square of the residuals is 0.07
 RMSEA index = 0.076 and the 90 % confidence intervals are 0.062 0.089
 BIC = -14.73

Compare this with the adequacy of just a general factor and no group factors
 The degrees of freedom for just the general factor are 27 and the fit is 0.54
 The number of observations was 879 with Chi Square = 471.22 with prob < 1.3e-82
 The root mean square of the residuals is 0.13
 The df corrected root mean square of the residuals is 0.15

RMSEA index = 0.137 and the 90 % confidence intervals are 0.126 0.148
 BIC = 288.2

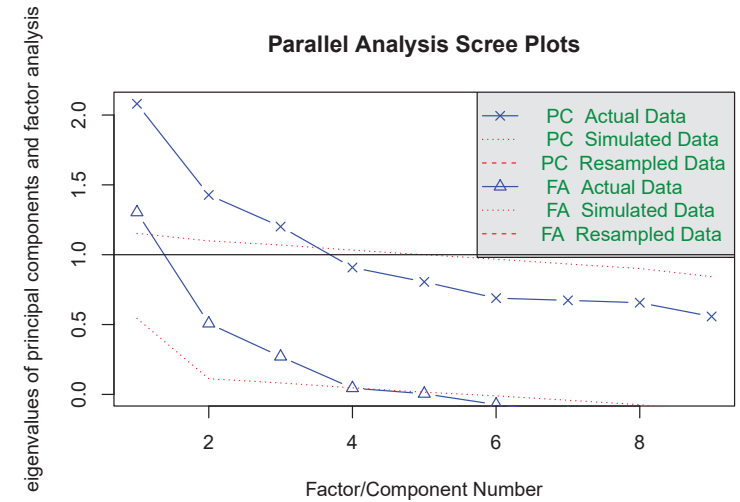
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.46	0.72	0.74
Multiple R square of scores with factors	0.22	0.52	0.55
Minimum correlation of factor score estimates	-0.57	0.04	0.10

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.61	0.55	0.50
Omega general for total scores and subscales	0.18	0.11	0.11
Omega group for total scores and subscales	0.36	0.45	0.39

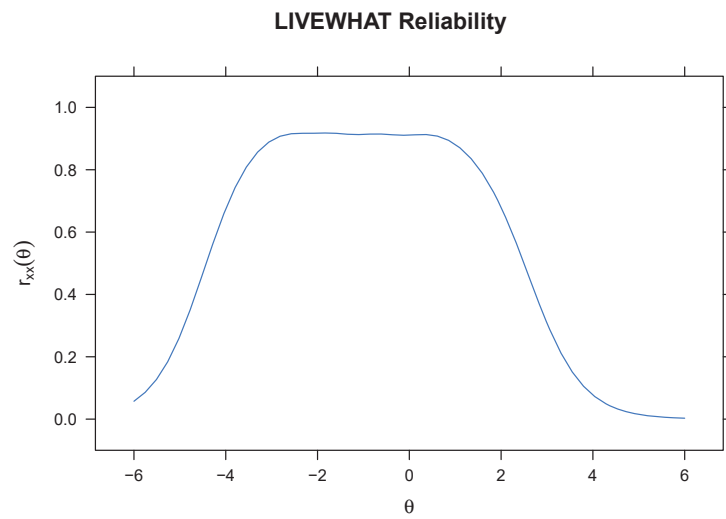
7.H Dimensionality [2]



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

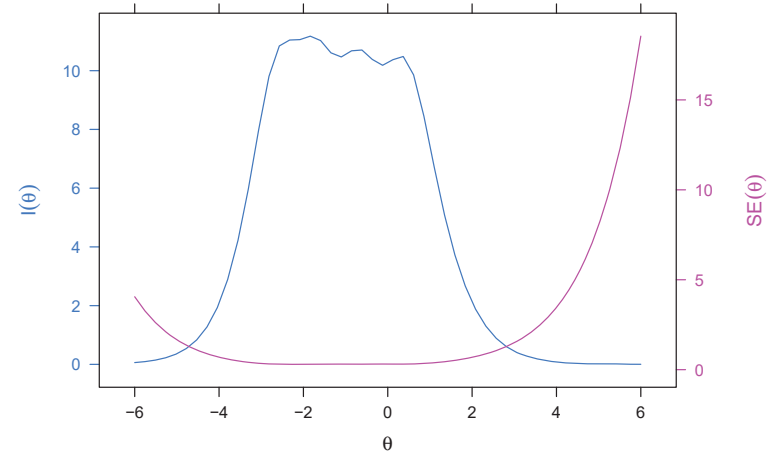
8. LIVEWHAT [18370 valid cases]

8.A Reliability



8.B Information & Standard Error of Measurement

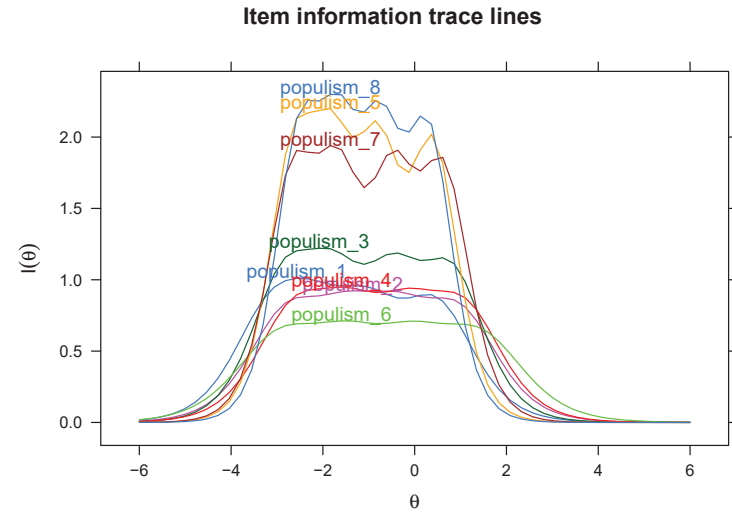
LIVEWHAT Information & Standard Error of Measurement



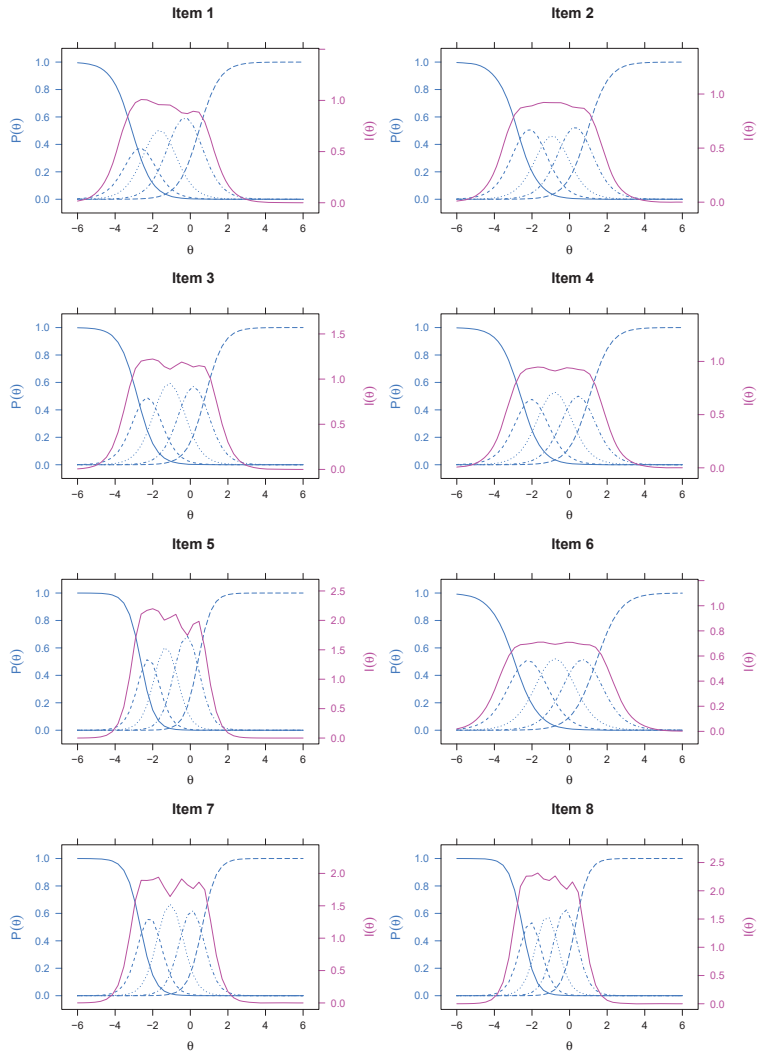
8.C Estimated total scores per level of the latent construct

	total.score	theta
1	8.022791	-6
2	8.130933	-5
3	8.740430	-4
4	11.526993	-3
5	17.835188	-2
6	24.709041	-1
7	31.123241	0
8	36.599624	1
9	39.149048	2
10	39.827482	3
11	39.967271	4
12	39.993805	5
13	39.998813	6

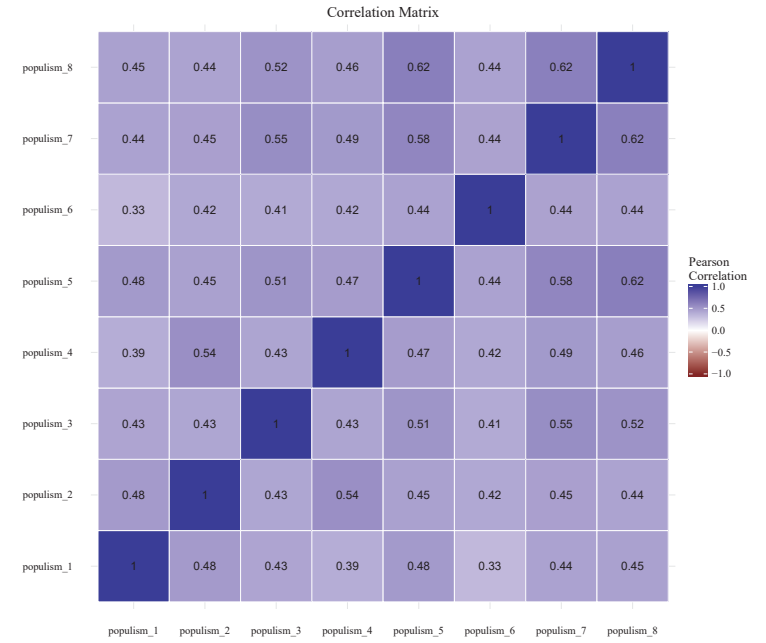
8.D Item information - All in one Graph



8.E Item information & SE - plus Item Category Thresholds

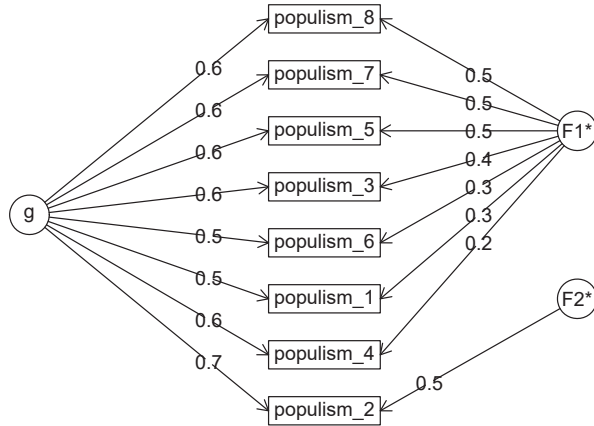


8.F Correlation Matrix



8.G Dimensionality

Omega



```
Omega
Call: psych::omega(m = X8, nfactors = 2)
Alpha: 0.88
G.6: 0.87
Omega Hierarchical: 0.67
Omega H asymptotic: 0.76
Omega Total 0.89
```

```
Schmid Leiman Factor loadings greater than 0.2
      g  F1*  F2*  h2  u2  p2
populism_1 0.55 0.26      0.38 0.62 0.78
populism_2 0.73      0.53 0.82 0.18 0.65
populism_3 0.57 0.38      0.46 0.54 0.69
populism_4 0.59 0.24 0.20 0.45 0.55 0.79
populism_5 0.62 0.46      0.60 0.40 0.65
populism_6 0.51 0.28      0.34 0.66 0.75
populism_7 0.62 0.46      0.60 0.40 0.64
populism_8 0.62 0.49      0.62 0.38 0.61
```

```
With eigenvalues of:
      g  F1*  F2*
2.92 1.01 0.35
```

```
general/max 2.9  max/min = 2.86
```

```
mean percent general = 0.7 with sd = 0.07 and cv of 0.1
Explained Common Variance of the general factor = 0.68
```

```
The degrees of freedom are 13 and the fit is 0.02
The number of observations was 18370 with Chi Square = 394.8 with prob < 2.8e-76
The root mean square of the residuals is 0.01
The df corrected root mean square of the residuals is 0.02
RMSEA index = 0.04 and the 90 % confidence intervals are 0.037 0.043
BIC = 267.16
```

```
Compare this with the adequacy of just a general factor and no group factors
The degrees of freedom for just the general factor are 20 and the fit is 0.38
The number of observations was 18370 with Chi Square = 6950.83 with prob < 0
The root mean square of the residuals is 0.13
The df corrected root mean square of the residuals is 0.15
```

```
RMSEA index = 0.137 and the 90 % confidence intervals are NA NA
BIC = 6754.46
```

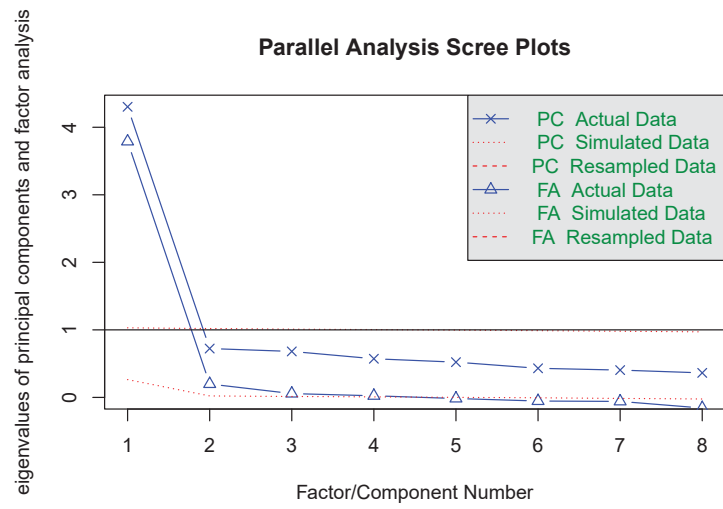
Measures of factor score adequacy

	g	F1*	F2*
Correlation of scores with factors	0.85	0.65	0.64
Multiple R square of scores with factors	0.72	0.43	0.40
Minimum correlation of factor score estimates	0.44	-0.15	-0.19

Total, General and Subset omega for each subset

	g	F1*	F2*
Omega total for total scores and subscales	0.89	0.86	0.82
Omega general for total scores and subscales	0.67	0.62	0.53
Omega group for total scores and subscales	0.20	0.24	0.28

8.H Dimensionality [2]



Parallel analysis suggests that the number of factors = 4 and the number of components = 1