



# Assessing cross-cultural measurement equivalence taking differences in response style into account

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# outline

1. Introduction: Response styles and how to measure them?
2. Modelling acquiescence (ARS): characteristics of the model
3. Modelling ARS in multi-group situations:  
overview of successful examples = *select 1 (nr 4)*
4. (partial) failure (*ess R4 welfare concept : WHY?*)

*discussion*

# 1.

## Introduction:

# Response styles and how to measure them



**Response style** = systematic tendency to respond to a range of survey items on some basis other than that which the items were specifically designed to measure (Paulhus, 1991)

- is systematic kind of “measurement error”
- is typical for set of items using same response format (multiple indicators that measure latent variable)
- can be different according to cultural groups
- there are ways to detect it, and to control for it

# Kinds of response styles

- Tendency to endorse assertions independently from their content = **acquiescence** (yes-saying) = **ARS**
- Tendency to deny assertions independently from their content (**no-saying**) = **DRS**
- Tendency to choose extreme response categories of response scales independently from content of items = **extreme response style** = **ERS**
- Tendency to choose the middle of a response scale = **midpoint responding** independently from their content = **MRS**

**Challenge:** how to measure style independently from content

# How to measure response style (RS)?

## Typology of RS measures in 2 dimensions (Weytens, 2006)

I. *status* of the items on which response style measures are based

- (A) multifunctional: measure both Content + RS
- (B) specific RS measure

II. the *treatment of content* in these items

- (1) no specific ex ante control (content of items not deliberately planned or selected before data collection)  
response style computed ad hoc on available items
- (2) content can be eliminated with aim to measure style
- (3) content can be manipulated (e.g. opposite meanings in set of items) in order to cancel out the effect of content
- (4) content is randomized so that there is no systematic influence of content on response

# How to measure response style (RS)?

I. Treatment of content	II. Function of item set used for response style	
	A. Multi-functional	B. Specific measure for RS
1. No ex-ante control for content	<b>A1</b> Try to detect additional RS factor besides content factors <i>Neg: confounding content &amp; RS</i> <i>See example of ESS R4 (attitude Social Security)</i>	<b>B1</b> Try to measure RS in items without control for content (e.g. # of agreements, MA... in other items) <i>neg: not possible to disentangle RS and content</i>
2. Elimination of content	<b>(A2)</b> <i>Not possible by definition not multi-functional</i>	<b>B2</b> Try to develop content free items that only measure RS directly ( <i>neg: what is studied is guessing, not RS</i> )
3. Experimental control	<b>A3</b> Possible in MTMM or in case of positively and negatively worded items (ARS & DRS)	<b>B3</b> Separate measurement of items and their reversion. Items not further used for substantive reasons, only for RS
4. Randomization of content	<b>(A4)</b> <i>Not theoretical meaningful since items not used to measure specific content</i>	<b>B4</b> Used in marketing research Include large additional set of random items in which no correlation is expected. Correlation = response style

# How to measure response style (RS)?

## B4

Use large set (e.g. 50 items) of (assumed) mutually independent items

Apart from the target items that measure a content (Greenleaf, 1992; Baumgartner & Steenkamp, 2001; Weytens, 2008)

Measure of RS = correlation between independent items

*(one can find out what increases the correlation: extreme, middle, agreement or disagreement)*

*Disadvantage:*

- many additional items just for measuring style

*Advantages:*

- useful for the four style effects
- possible to include the style measures in substantive regression models with content variables



# How to measure response style?

## A3.

- the **MTMM** form = repeated measurements with variation in traits and response formats (dependent of the RS one wants to measure)

*advantage:* directly included in structural models

*disadvantages =*

- inflation of items
- difficult to distinguish between style and method effect (response scale)

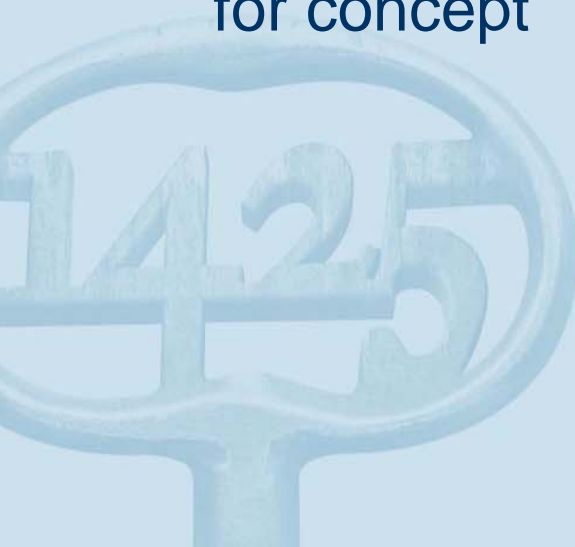


# How to measure response style?

- the **balanced set** of items form *advantages* = items that are designed for measuring content are used for measuring RS if they are balanced
  - directly included in **structural models** with relations between content variables
- the latent variable approach with SEM (*Billiet & McClendon, 2000*)
  - disadvantage* = only useful for **ARS** and DRS<sup>1</sup>
  - (next part is focused on this approach)*

<sup>1</sup> *mostly theoretical...*

- the latent class approach (*Moors, Q&Q 2003; Moors, ESR 2004; Kankaras & Moors, 2011*)
  - specify an extra latent class identified as RS
  - advantage*: possible to model ARS, ERS, MRS
  - disadvantage*: very large samples, fewer indicators for concept



2.

## Modelling acquiescence (ARS): characteristics of the model



# Modelling acquiescence

- Focus further on ARS in the balanced set approach (**A3**)
- Previous work on ASR:
  - known since 1927 (Cronbach...)
  - Explained as:
    - impression management (positive image of oneself) (Ross & Mirowsky, 1984)
    - desire to satisfice (minimum cognitive activity) (Krosnick 1991, 1992, 2005)
- Related to background variables:
  - Education = lower educated more yes-saying
  - Age = older respondents more yes-saying
  - Gender?
  - characteristics of society? (cultural norm not to say NO)

# How to measure ARS?

- In case of **single items**: providing opposed assertions in split ballot, or in repeated measurements or avoid by using forced choice items (*Schuman & Presser, 1981*)
- In case of **multiple indicators** per theoretical variable (as common source of variation: *congeneric measures*)
  1. **Index of yes-saying** (# of times YES in sets of items about various contents) (*Watson, 1992*)  
*problem = not independent from content variables*
  2. Use **strict reversals**: count double agreements (*difficult...*)
  3. **Use balanced sets of items** per concept: balanced = positively and negatively worded items
    - use composite scores after reversing half of items (yes-saying in middle)
    - OR apply **structural equation models** for content variables plus additional style factor (*Billiet & McClendon, SEM 2000*)

## Expectations about the model:

- In **one** balanced set of items
  - Acquiescence can be identified as a common factor apart from content
  - the common style factor will have a non-zero variance which is smaller than the variance of the content factor
- In **two or more** balanced sets of items per content (concept)
  - One common style factor should be found in two (or more) balanced sets of indicators
  - If ARS: should correlate strongly with # agreements
  - If ARS: stable over time

## Conditions:

- substantial number of double agreements in (quasi) balanced sets
- (quasi) balance within each set
- for test on stability: panel data (*see paper JB & ED 2008*)

# example

- Balanced set with six items on ethnic threat and four items on distrust in politics in Flanders and Wallonia (1995: ISPO data)
- Exploration in one Flemish subsample (N= 986) and confirmation in other Flemish subsample (N = 1,114) and in Walloon sample (N=1,200)
- Scoring:       completely agree = 5  
                  completely disagree = 1  
                  *(otherwise negative slopes for STYLE)*  
Do not reverse item-scores in model
- Test of possible models: model with STYLE preferable
- Model specifications: see Billiet & McClendon, SEM 2000

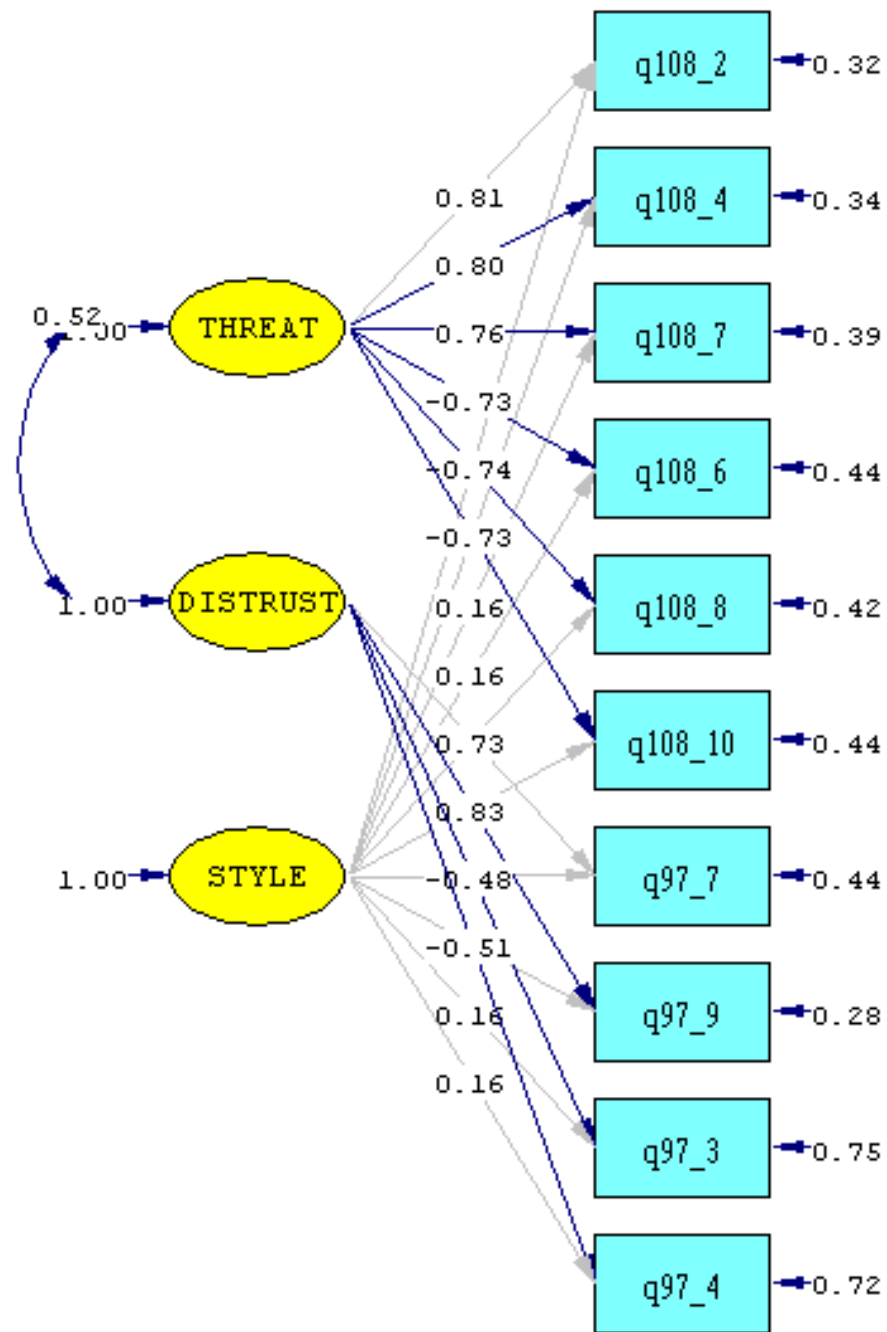


# The items

<i>Item number</i>	<i>Balanced sets of items</i>
v108_2	In general, immigrants are not to be trusted.
v108_4	Guest workers endanger the employment of the Belgians.
v108_7	Muslims are a threat for our culture and customs.
v108_6	The immigrants contribute to the prosperity of our country.
v108_8	The presence of different cultures enriches our society.
v108_10	We should kindly welcome the foreigners who come to live here.
v97_7	The politicians have lost the ability to listen to ordinary people like me.
v97_9	Once they are elected, most politicians feel themselves too good for people like me.
v97_3	If people like me make their views know, the politicians generally take them into account.
v97_4	Most of our politicians are able people who know what they are doing.

# The model

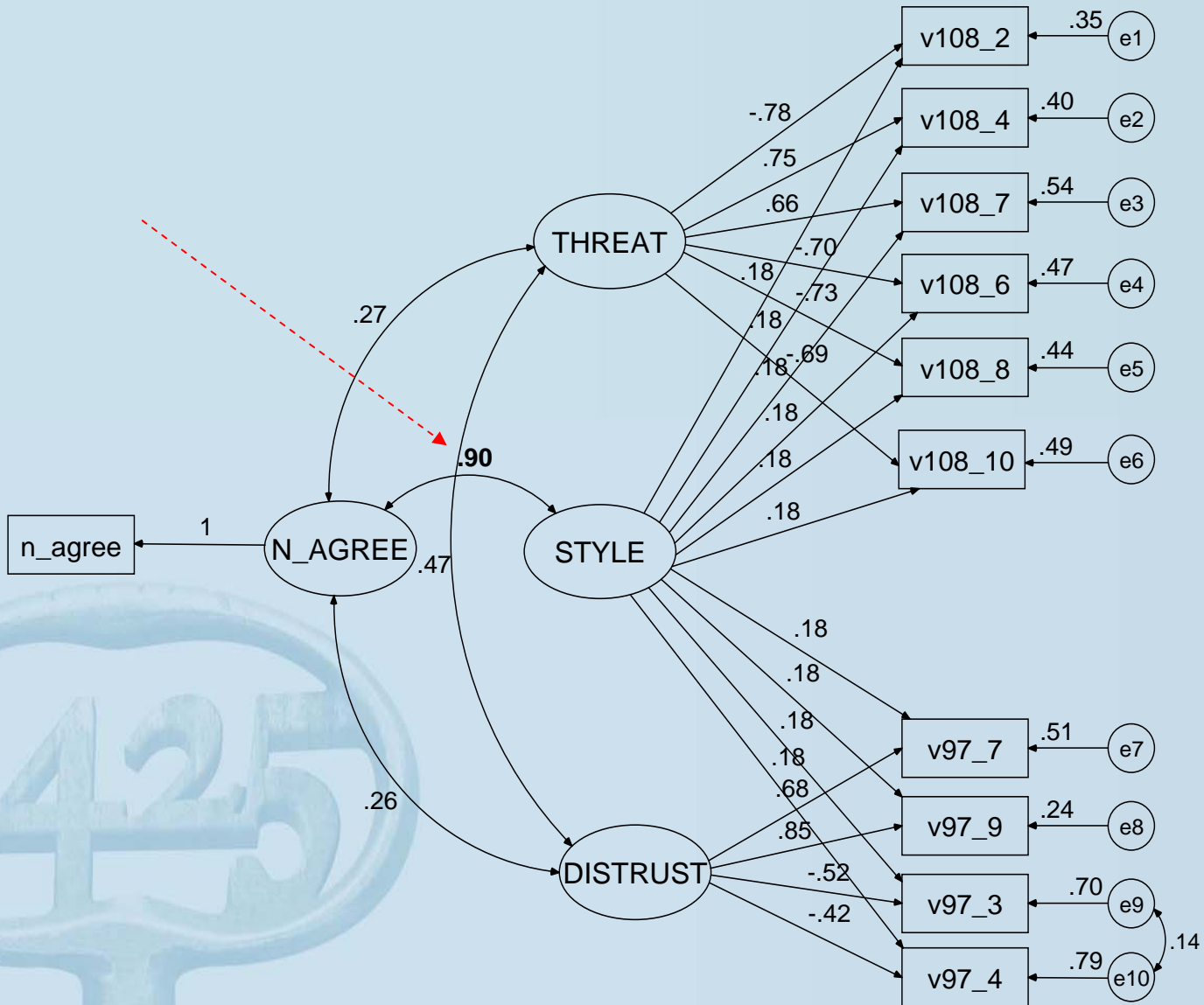
## Walloon sample



Chi-Square=36.93, df=33, P-value=0.29217, RMSEA=0.010

# Further comments on this model

- **Is it ARS** or tendency to choose first response alternative on response card, or choose 1)  
arguments:
  - Negative correlation with education ( $r = -.23$ ;  $t = -3.242$ )
  - Positive correlation with age ( $r = .15$ ;  $t = 2.749$ )
  - Very strong correlation of style factor with # agree in 14 balanced items (+0.90 see next figure) (*is however also expected in case of recency effect*)
  - In ISSP 1995: “decrease-increase” item within balanced set on immigrants has no significant loading on STYLE factor  
*see model (in Flemish exploratory sample)*



# Further comments on this model

- **Is it stable over time?** (see paper Billiet & Davidov)
  - test in two waves of *Belgium General Election Survey (Flanders)* 1995-1999 (N = 1,112)
  - scalar (& metric) invariant model over waves
  - correlation  $ARS_{95}-ARS_{99} = \mathbf{0.56}$  see *structural relations in next slide*

**Table 2:** Scalar invariant models and their Indices of Model Fit (N = 1,112)

Model	Chi-Square	DF	RMSEA	Pclose
Model 1: 2x2 content factors no style	405.57	162	0.037	1.00
Model 2: Style factors, $cor(St95, St99)=0$	357.20	160	0.033	1.00
Model 3: Correlated style factors St95-St99	344.16	159	0.032	1.00

**Table 4:** Correlations between Content and Style Factors in Model 3 (T-Values in Parentheses).

	THR95	DISTR95	STYLE95	THR99	DISTR99	STYLE99
THR95	1.000 (37.30)					
DISTR95	0.496 (15.12)	1.000 (19.04)				
STYLE95	---	---	1.000 (5.85)			
THR99	<b>0.859</b> (34.79)	0.504 (16.42)	---	1.000 (26.23)		
DISTR99	0.523 (17.36)	<b>0.736</b> (18.34)	---	0.592 (19.97)	1.000 (20.68)	
STYLE99	---	---	<b>0.562</b> (3.61)	---	---	1.000 (5.36)

# 3.

## Modelling ARS in a multi-group situation: short overview of successful examples



# Successful examples of ARS & measurement invariance

1. Measurement equivalent (ME) model with two full-balanced sets of items with ASR in Flanders and Wallonia
2. ME model for relation between one full balanced set (Ethnic threat) and a concept (sub-national consciousness) measured with mixed response scales: Flanders and Wallonia (1999 BGES)
3. ME model with one quasi-balanced set (asylum items in ESS 2002) in search of detection of “*lost in translation*” in four countries (French language)
4. ME model with two unbalanced sets of items and with mixed set (relation between sub-national consciousness, ethnic threat and xenophobia in Flanders and Wallonia) (2007 BGES)

BGES = *Belgian General Election Survey*



# Example 1: two balanced concepts in two samples (Dutch 1900; & French 1100 )

6 ethnic threat and 4 distrust items

Model with invariant slopes (metric invariant

**Table.** Comparison of a metric invariant model for ethnic threat and political distrust in Flanders and Wallonia without and with a Style factor

Models	Chi-square	df	RMSEA	P-value of close fit	NFI
Model 1: No Style factor	431.01	76	0.059	0.001	0.968
Model 2: With Style factor	193.46	75	0.033	1.00	0.986

\* *scalar invariance not tested*

## Example 2. one fully balanced set and mixed response scales for second concept

- Relation between sub-national consciousness and ethnic threat (BGES 1999) (*Billiet, Maddens & Beerten, Political Psychology 2003*)
  - balanced set for eth threat ( MIGRANT): 3 pos and 3 neg (see previous examples)
  - National consciousness (NAT\_ID) questions on
    - *independence of Fl/Wal (10 p)*
    - *split of social security (likert 5p)*
    - *what level should decide (10p)*
    - *scale based on first and second identification with FL/Wal-Belg*
    - *Exclusive identification (exclusive Belg --- exclusive FL/Wal 5p)*

## Example 2. Comparison of the completely constrained models without (Model a) and with a method factor (Model b)

Models	Chi-square	Df	RMSEA	p-value of close fit	NFI
<b>Model a: factorial invariant: no Style factor</b>	<b>640.71</b>	<b>109</b>	<b>.078</b>	<b>.391</b>	<b>.980</b>
<b>Model b: factorial invariant; Style factor</b>	<b>585.73</b>	<b>108</b>	<b>.068</b>	<b>.682</b>	<b>.982</b>

See next page:

Slope parameter “*splitting social security*” is not metric invariant

Indeed: it is not in favour of the Walloons but according to the Flemish in favour of them.

As expected: much stronger correlation of item with sub-national consciousness in FI than in Wal sample

# Example 2: the selected model

Indicators	$\Lambda^1$ : Flanders			$\Lambda^2$ : Wallonia		
	NAT_ID	MIGRANT	STYLE (all fixed)	NAT_ID	MIGRANT	STYLE (all fixed)
1. <i>Independ</i>	.57 (fixed)			.57 (fixed)		
2. <i>Soc_sec</i>	<b>.58</b> (19.33)			<b>.29</b> ( 8.58)		
3. <i>Decide</i>	.73 (21.76)			.73 (21.76)		
4. <i>First_id</i>	.72 (21.60)			.72 (21.60)		
5. <i>Exclus_id</i>	.77 (21.49)			.77 (21.49)		
6. <i>Distrust</i>		.81 (fix )	.17	.81 (fix )		.17
7. <i>Employ</i>		.78 ( 39.98)	.17	.78 ( 39.98)		.17
8. <i>Culture</i>		.74( 35.85)	.17	.74( 35.85)		.17
9. <i>Prosperity</i>		-.74 (-42.16)	.17	-.74 (-42.16)		.17
10. <i>Enriching</i>		-.75 (-38.39)	.17	-.75 (-38.39)		.17
11. <i>Welcome</i>		-.713 (-37.34)	.17	-.713 (-37.34)		.17
Correlations	NAT_ID	MIGRANT	STYLE	NAT_ID	MIGRANT	STYLE
NAT_ID	1.0 (10.90)			1.0 (10.59)		
MIGRANT	<b>.09</b> ( 1.96)	1.0 (33.10)		<b>-.10 (-2.6)</b>	1.0 (31.21)	
STYLE	.0	.0	1.0 ( 5.09)	.0	.0	1.0 ( 5.09)

# Example 3. four countries quasi balanced

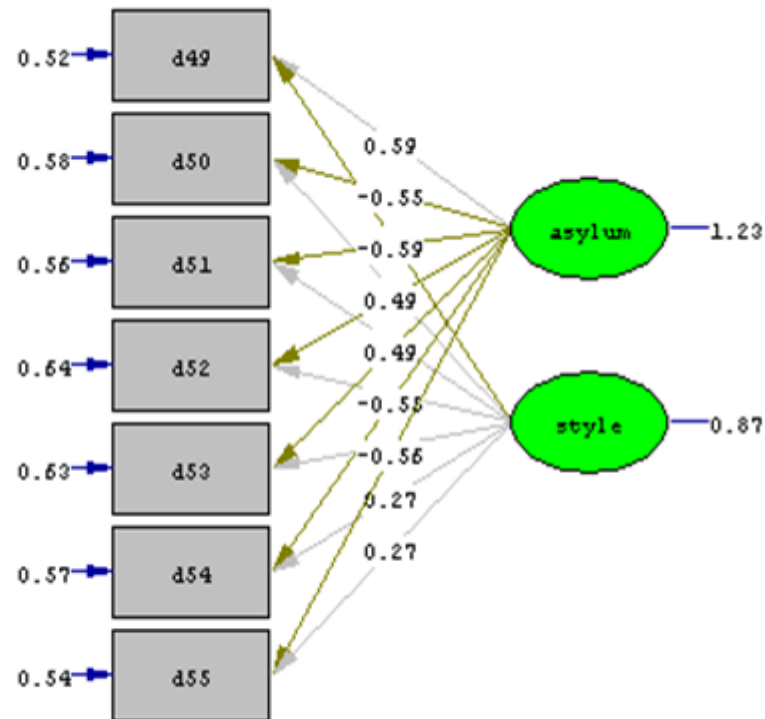
Asylum items in R-ESS 2002 4 samples with questionnaires in French = FR, LU, canton Genève of CH and Walloon sample of BE  
Reason for test: translation problem with item D51 expected in France

- D49 [Country] has more than its fair share of people applying refugee status (-)
- D50 People applying refugee status allowed to work while cases considered (+)
- D51 Government should be generous judging applications for refugee status (+)
- D52 Most refugee applicants don't fear persecution in own countries (-)
- D53 Refugee applicants kept in detention centres while cases considered (-)
- D54 Financial support to refugee applicants while cases considered (+)
- D55 Granted refugees should be entitled to bring close family members (+)

(completely disagree 1 – completely agree 5)

# Example 3...

Model	Chisq	df	RMSEA	P(close fit)	Model CAIC
Mo: basic model invariant (A)	1,842.78	92	0.133	0.000	2,291.57
Mo: basic model invariant (A+S)	1,304.60	84	0.116	0.000	1,829.35
<b>M1: free <math>\tau^{FR}_3</math></b>	<b>860.92</b>	<b>83</b>	<b>0.093</b>	<b>0.000</b>	<b>1,395.04</b>
M2: free $\tau^{LU}_5$	738.80	82	0.086	0.000	1,282.29



Chi-Square=702.25, df=83, P-value=0.00000, RMSEA=0.098

## Example 4. two unbalanced sets and mixed set in two groups (Flemish and Walloon samples of GBES 2007)

- Measurement of *(sub)national consciousness (NAT\_ID)* in Flanders and Wallonia: set of 4 indicators with mixed response scales  
*(soc\_sec item dropped because in 2007 in opposite direction related with the 4 other indicators the two samples)*
- Two other concepts (*ethnic threat* and *Islamfobia*) all agree-disagree items  
with **6** negatively worded and **2** positively worded items in **each** set

*Substantive question:* is opposite relation between nat\_id and ethnic threat a stable finding

*Meth. question:* is model with style factor still possible? (12 versus 4 items over de two sets)

# Example 4: observed indicators for perceived ethnic threat (ISPO 2007) (5p disagree---agree items)

Item	Ethnic threat
Q114_1	In general, immigrants are not to be trusted (-)
Q114_2	Immigrants contribute to the country's welfare (+)
Q114_3	Guest workers come here to take advantage of our social security system (-)
Q114_4	Immigrants are a threat to our culture and customs (-)
Q114_5	The presence of different cultures enriches our society (+)
Q114_6	Most immigrants are lazy, who try to avoid hard work (-)
Q114_7	Guest workers are a threat to the employment of Belgians (-)
Q114_8	Immigrants' way of life is irreconcilable with Western Europeans' way of life (-)



# Example 4: observed indicators for Islamphobia (ISPO 2008) (5p disagree---agree items)

Item	Islamfobia
D32_1	The Islam can contribute to the European culture (+)
D32_2	Muslim men dominate their wives (-)
D32_3	Muslims do attach great importance to their children's education (-)
D32_4	If it really matters Muslims turn against Europe (-)
D32_5	The Islamic culture and history are more violent than others (-)
D32_6	Islamic values are a threat to the European culture (-)
D32_7	Most Muslims have respect for our culture and our way of living (+)

# Observed indicators for (sub)national consciousness (ISPO 2008)

Item	(Sub)national identity
First_id	4-point scale (0 = first identification with Belgium --- 3 = first identification with Flanders/Wallonie)
Exclus_VW	5-point scale (1 = exclusive Belgium --- 5 = exclusive Flemish/Walloon)
Decide	11-point scale (0 = Belgium must decide --- 10 = Flanders must decide)
Split_B	5-point scale (1 = Unitarian Belgium state --- 5 = split the state)



**Table:** Equivalent measurement model (scalar and metric invariance) in the Flemish and Walloon samples

**part I:** measurement part – standardized factor loadings (*response style = acquiescence = tendency to agree with all*)

Items	<i>Ethnic threat</i>	<i>Islamophobia</i>	<i>(Sub)national identity</i>		<i>Response style</i>
	<i>(in both samples)</i>	<i>(in both samples)</i>	<i>Flemish</i>	<i>Walloon</i>	<i>(in both samples)</i>
Q114_1	0.797				0.112
Q114_2	-0.751				0.112
Q114_3	0.817				0.112
Q114_4	0.873				0.112
Q114_5	-0.781				0.112
Q114_6	0.791				0.112
Q114_7	0.746				0.112
Q114_8	0.829				0.112
D32_1		-0.773			0.112
D32_2		0.627			0.112
D32_3		0.608			0.112
D32_4		0.836			0.112
D32_5		0.813			0.112
D32_6		0.902			0.112
D32_7		-0.705			0.112
First_id			0.793		
Exclus_VW			0.789		
Decide			0.632	0.749	
Split_B			0.750		

**Table 1:** Equivalent measurement model in the Flemish and Walloon samples. **Part II:** structural model

<b>Stand. cov.</b> <b>Flanders</b>	<i>Ethnic threat</i>	<i>Islamophobia</i>	<i>(Sub)national identity</i>	<i>Response style</i>
<i>Threat</i>	1.000			
<i>Islamophobia</i>	0.790	1.000		
<i>(Sub)national</i>	<b>0.259</b>	<b>0.319</b>	1.000	
<i>Resp. style</i>	-	--		1.000
<b>Stand. cov</b> <b>Wallonia</b>	<i>Ethnic threat</i>	<i>Islamophobia</i>	<i>(Sub)national identity</i>	<i>Response style</i>
<i>Threat</i>	1.000			
<i>Islamophobia</i>	0.790	1.000		
<i>(Sub)national</i>	<b>-0.243</b>	<b>-0.240</b>	1.000	
<i>Resp. style</i>	--	--		1.000

## Example 4: conclusions and questions

- Full scalar and partial metric invariant After drop of “splitting of social security” item, NAT\_ID is (see model)
- Correlation is negative in Wallonia and positive in Flanders (as expected according to theoretical expectations)
- Partial metric equivalence is indication that meaning of NAT\_ID is different in samples: nationalism in Flanders and regionalism in Wallonia (in line of world knowledge)
- It is possible to model a style factor even in very unbalanced sets (condition is enough reversed wordings over the sets)
- When is it not longer possible: *see next pages on failures*

# 4. (partial) failure WHY?



# Example 4: four concepts on welfare state ESS round 4 (2008)

- At occasion of publications of Meuleman et al. on the multi-dimensionality of welfare state legitimacy (*Meuleman, JSW 2011; Meuleman & Van Oorschot, IJSW, 2006*)
- Proposed a model with STYLE factor (*footnote in coming publication*) with ESS data 2008.
- Reflections on this model:
  - *is the style factor ARS?*
  - *is it possible to model ARS with these items*
  - *why not?*
  - *how to solve in principle?*

# Example 4. the items for four dimensions (concepts)

## EQUAL: income equality

- The government should take measures to reduce differences in income levels (+)
- Large differences in people's incomes are acceptable to properly reward differences to obey authority (-)
- For a society to be fair, differences in people's standard of living should be small (+)

## MORAL\_CO: moral consequences of WS

- Social benefits and services make people lazy
- Social benefits and services make people less willing to care for one another
- Social benefits and services make people less willing to look after themselves and their family



# Example 4. the items...

ECO\_CONS: economic consequences of WS

- Social benefits place too great a strain on the economy
- Social benefits cost business too much in taxes and charges

SOC\_CONS: social consequences of WS

- Social benefits prevent widespread poverty
- Social benefits lead to more equal society
- Social benefits make it easier for people to combine work and family life

**Attention:** items of ECON\_CONS might be in contrast with items of SOC\_CONS but these are all in same direction within the concepts

# Comparison between ME model with and model without a STYLE factor in two samples (Flemish, Walloon)

ME model is full metric and scalar invariant

<b>Models</b>	<b>Chi-square</b>	<b>Df</b>	<b>RMSEA</b>	<b>p-value of close fit</b>	<b>NFI</b>
<b>Model a: factorial invariant: no Style factor</b>	<b>233.17</b>	<b>90</b>	<b>0.043</b>	<b>0.945</b>	<b>0.918</b>
<b>Model b: factorial invariant; Style factor</b>	<b>148.99</b>	<b>85</b>	<b>0.031</b>	<b>1.00</b>	<b>0.946</b>

correlations of four concepts with STYLE are fixed in model 2

# The model

Common Metric Completely Standardized Solution

LAMBDA-Y

	EQUALTY	ECO_CONS	SOC_CONS	MORAL_CO	STYLE
	-----	-----	-----	-----	-----
b30_b	0.629	- -	- -	- -	0.261
d1_b	-0.600	- -	- -	- -	0.262
d4_b	0.654	- -	- -	- -	0.261
d21_b	- -	0.661	- -	- -	0.261
d25_b	- -	0.597	- -	- -	0.261
d22_b	- -	- -	0.473	- -	0.261
d23_b	- -	- -	0.953	- -	0.261
d26_b	- -	- -	0.327	- -	0.261
d27_b	- -	- -	- -	0.780	0.261
d28_b	- -	- -	- -	0.723	0.260
d29_b	- -	- -	- -	0.818	0.261

# Structural relations (Flemish sample)

	EQUALTY	ECO_CONS	SOC_CONS	MORAL_CO	STYLE
	-----	-----	-----	-----	-----
EQUALTY	0.454 (0.041) 11.083				
ECO_CONS	-0.129 (0.025) -5.094	0.419 (0.050) 8.409			
SOC_CONS	0.074 (0.019) 3.933	-0.053 (0.021) -2.510	0.216 (0.039) 5.530		
MORAL_CO	-0.094 (0.026) -3.593	0.263 (0.029) 8.999	-0.059 (0.019) -3.144	0.571 (0.036) 15.915	
STYLE	- -	- -	- -	- -	0.039 (0.009) 4.425

## Correlation Matrix of ETA

	EQUALTY	ECO_CONS	SOC_CONS	MORAL_CO	STYLE
	-----	-----	-----	-----	-----
EQUALTY	1.000				
ECO_CONS	-0.296	1.000			
SOC_CONS	0.238	-0.176	1.000		
MORAL_CO	-0.185	0.537	-0.168	1.000	
STYLE	- -	- -	- -	- -	1.000

# Structural relations (Walloon sample)

	<b>EQUALTY</b>	<b>ECO_CONS</b>	<b>SOC_CONS</b>	<b>MORAL_CO</b>	<b>STYLE</b>
<b>EQUALTY</b>	0.312 (0.040) 7.833				
<b>ECO_CONS</b>	-0.108 (0.029) -3.727	0.464 (0.074) 6.300			
<b>SOC_CONS</b>	-0.014 (0.017) -0.871	-0.094 (0.027) -3.511	0.238 (0.043) 5.490		
<b>MORAL_CO</b>	-0.084 (0.028) -3.035	0.293 (0.046) 6.434	-0.074 (0.023) -3.171	0.668 (0.056) 12.004	
<b>STYLE</b>	- -	- -	- -	-0.057 (0.026) -2.180	0.113 (0.018) 6.178

	<b>EQUALTY</b>	<b>ECO_CONS</b>	<b>SOC_CONS</b>	<b>MORAL_CO</b>	<b>STYLE</b>
<b>EQUALTY</b>	1.000				
<b>ECO_CONS</b>	-0.284	1.000			
<b>SOC_CONS</b>	-0.053	-0.282	1.000		
<b>MORAL_CO</b>	-0.183	0.526	-0.185	1.000	
<b>STYLE</b>	- -	- -	- -	-0.209	1.000

# discussion

- Is it response style?
- Rather strong correlation with # agree”
- not ARS!  
Why? No mix of positive and negative items within each concept (dimension)
- Confusion with content (see Walloon sample)  
see approach **A1** (p. 7)
- Possible to combine ARS wit MTMM?
  - if 4 measures per threat each with 3 response different scales
  - all agree – disagree items
  - one of these reversed wording (1 neg and 1 positive) varying over scales