Constraints and Opportunities of 10 Schwartz Value Items in World Values Survey

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Problem

- Schwartz developed theory of human values and **different** instruments for measuring values.

- Number of items: 57 -> 40 ->21 -> 10.

- General question: to what extent each of instruments is valid for measuring values?

- WVS: 10 and shortened items (without Schwartz)

- Suspiciously rare usage of the Schwartz battery ~10 publications using it, despite free access to data.

- This raises a question of the battery usability, its constraints and opportunities of usage.

Research questions

- Are indices based on 10 Schwartz items in World Values Survey represent the value domains?

- What are these indices?

Data

- World Values Survey (WVS), 2005-2007, 5th wave.

- 46 countries, 60004 respondents.

10 value items and according values

Indicators	Values	Categories
Living in secure surroundings is important to this person; to avoid anything that might be dangerous.	Security	Conservation
Tradition is important to this person; to follow the customs handed down by one's religion or family.	Tradition	
It is important to this person to always behave properly; to avoid doing anything people would say is wrong	Conformity	
It is important to this person to think up new ideas and be creative; to do things one's own way.	Self-direction	Openness to change
Adventure and taking risks are important to this person; to have an exciting life.	Stimulation	
It is important to this person to have a good time; to "spoil" oneself.	Hedonism	
It is important to this person to be rich; to have a lot of money and expensive things.	Power	Self-Enhancement
Being very successful is important to this person; to have people recognize one's achievements.	Achievement	
It is important to this person to help the people nearby; to care for their well-being.	Benevolence	Self-Transcendence
Looking after the environment is important to this person; to care for nature.	Universalism	

How do we assess validity?

1) Through checking for the consistency and stability of structure of value indices with

- Cronbach Alpha,
- multidimensional scaling,
- confirmatory factor analysis.

2) Through the comparisons with other surveys (ESS)

Cronbach Alpha: whether indices are internally consistent within countries

Value index	N of items in index	Average Cronbach Alpha in all countries	N of countries in which..				N of countries
			α<=0.3 "not reliable"	0.3<α<=0.5 "low"	0.5<α<=0.6 "acceptable"	α>0.6 "good"	
Conservation	3	0,55	0	12	22	12	46
Self-Transcendence	2	0,52	0	20	14	12	46
Openness to change	3	0,52	0	19	17	10	46
Self-Enhancement	2	0,46	2	28	10	6	46
Conservation – Openness to change	6	0,33	17	23	5	1	46
Self-Enhancement - Self-Transcendence	4	0,13	36	10	0	0	46

Individual-level internal consistency

Countries in which average Alpha of value categories are higher than 0.6

Andorra	0,50
Argentina	0,52
Australia	0,53
Bulgaria	0,60
Burkina Faso	0,50
Chile	0,54
China	0,51
Ethiopia	0,63
Finland	0,55
Germany	0,53
Great Britain	0,52
Indonesia	0,65
Moldova	0,56
Morocco	0,54
Netherlands	0,56
Norway	0,50
Poland	0,54
Romania	0,69
Russia	0,56
Serbia	0,62
Slovenia	0,54
South Korea	0,54

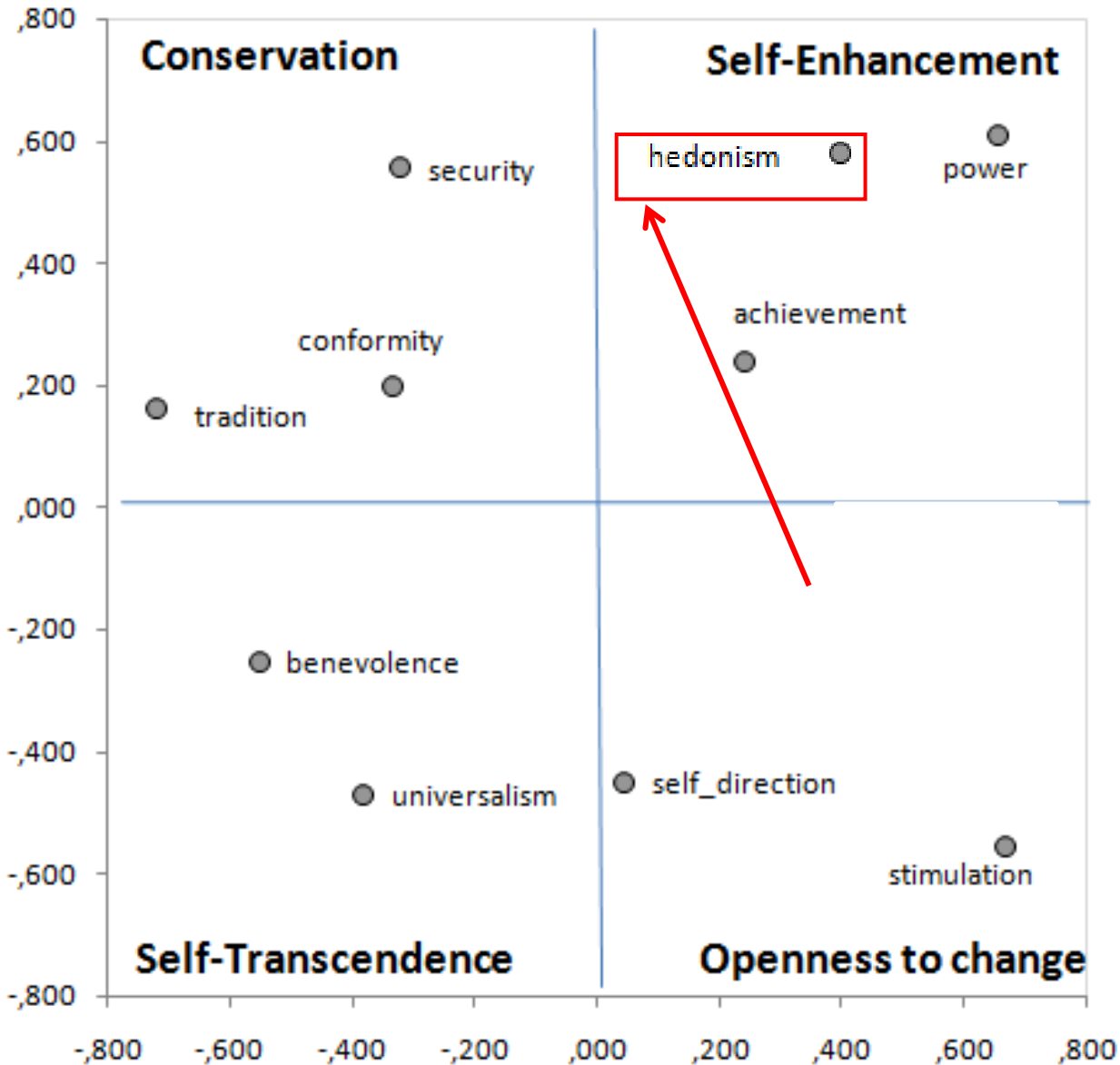|	
Thailand	0,54
Ukraine	0,56
United States	0,56
Uruguay	0,52
Viet Nam	0,57

- Half of these countries are advanced industrialized countries.

VISUAL ANALYSIS: Average overall structure of value dimensions
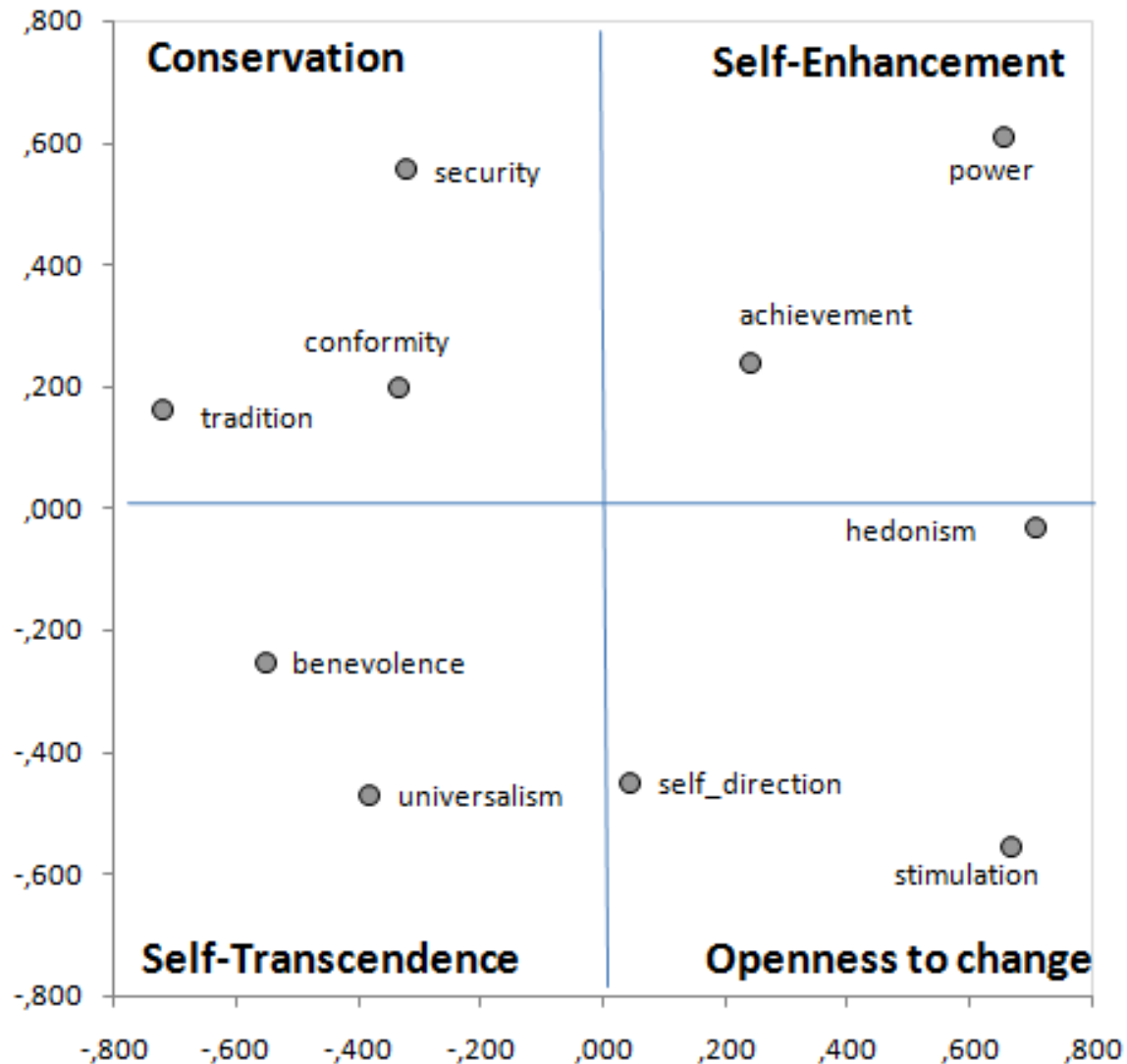
Pooled data from 5th wave of WVS (46 countries, 60004 respondents)

Example of Structure Deviations

Forms of deviations:
• mislocation of single items
• order of values
• distinguish regions
• ~~periphery/core~~
(Janik, Bilsky, yesterday)

Number of countries with misplaced items

Items	No of deviations
Achievement	18
Self-direction	13
Hedonism	10
Security	6
Tradition	5
Universalism	5
Benevolence	3
Conformity	3
Stimulation	2
Power	2
Total deviations	**67**

Average number of within-country deviations from the original structure

Advanced industrial countries*	0,6
Latin American countries	0,8
Ex-communist countries	2,1
Islamic countries countries	2,0
African countries	2,5
South Asian countries	2,0
All countries	**1.48**

* Includes Non-communist Europe, North America, Australia, Japan and South Korea
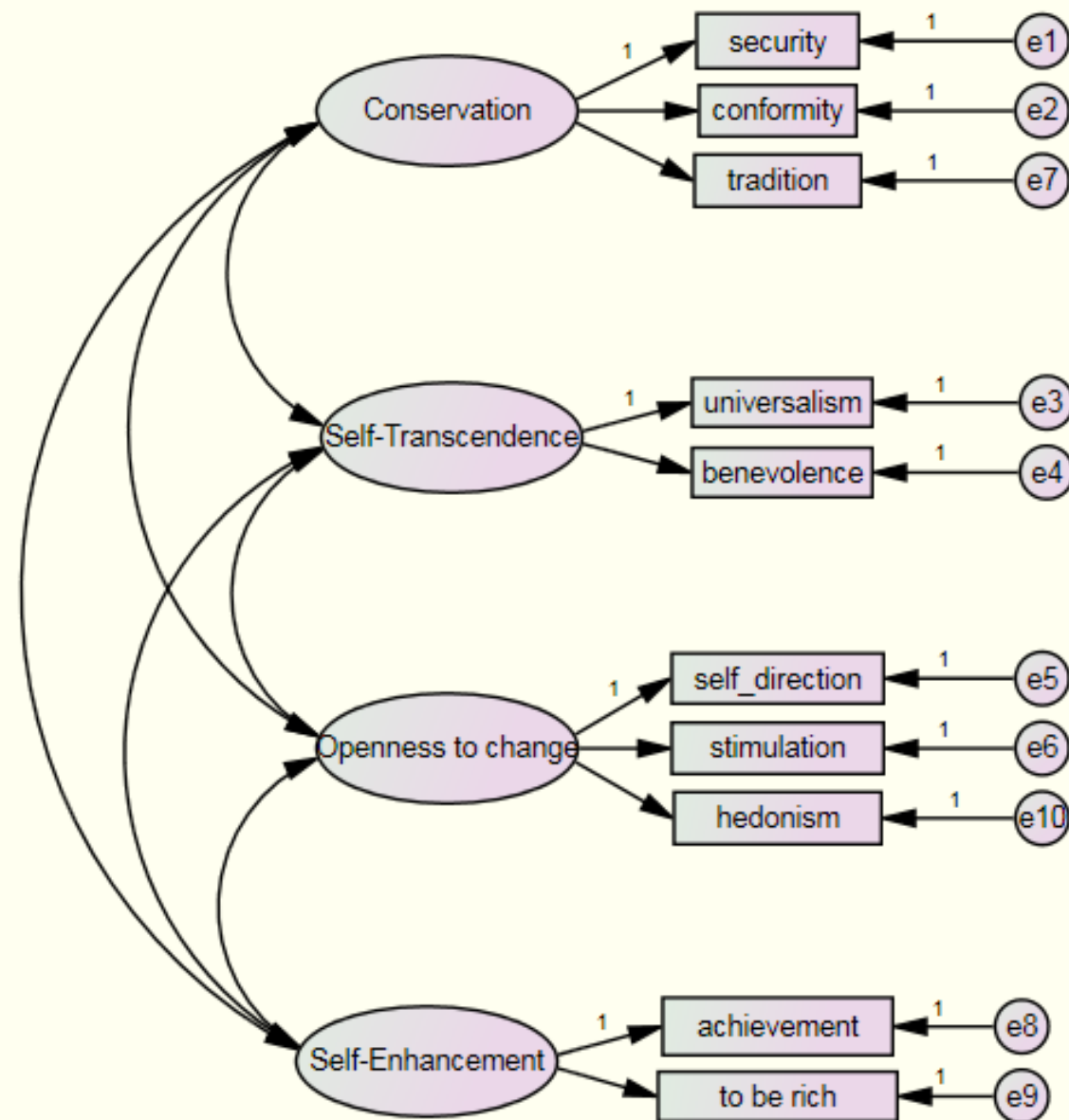
MDS on <u>Norwegian</u> sample
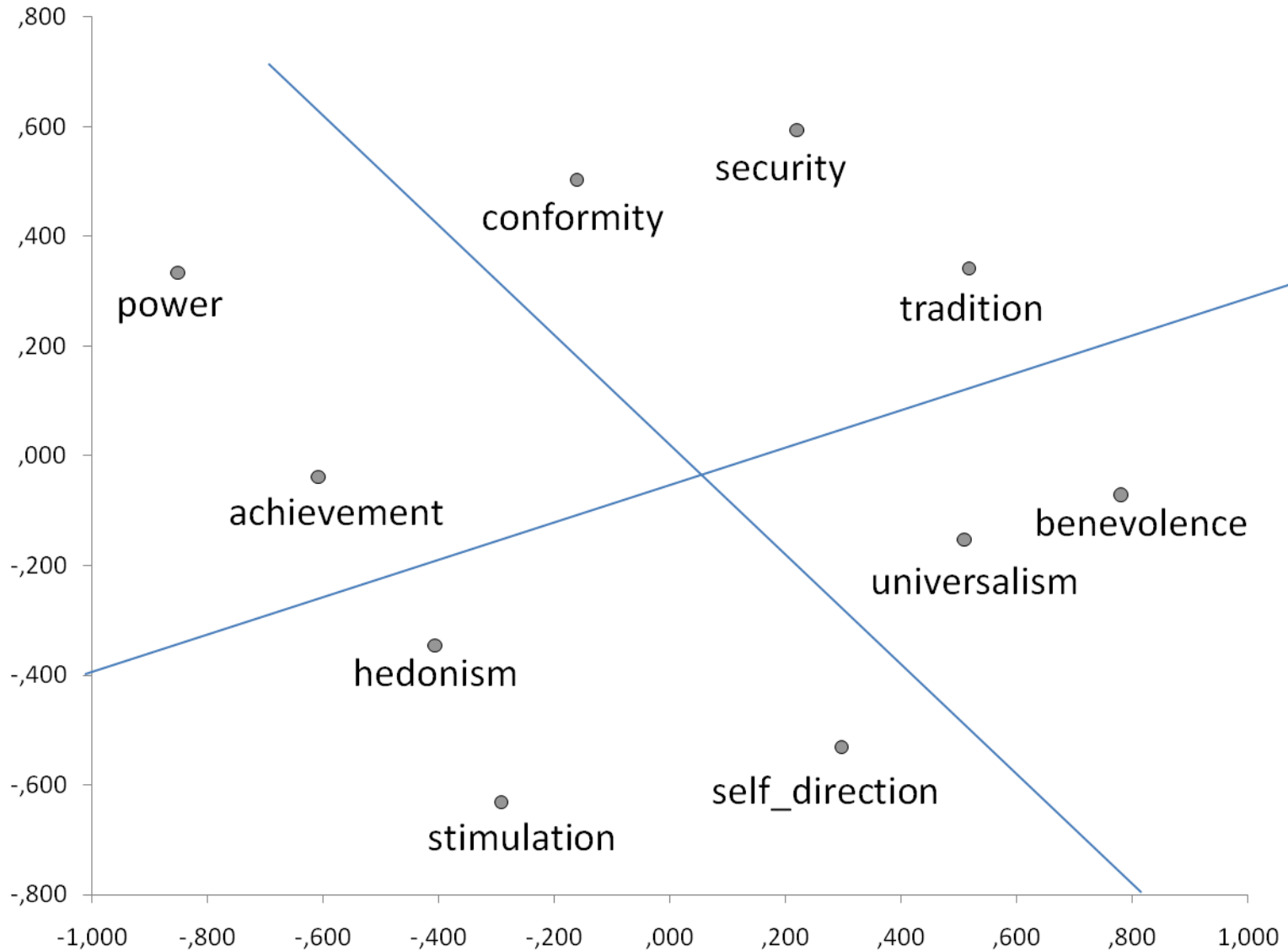
MDS on Indian sample
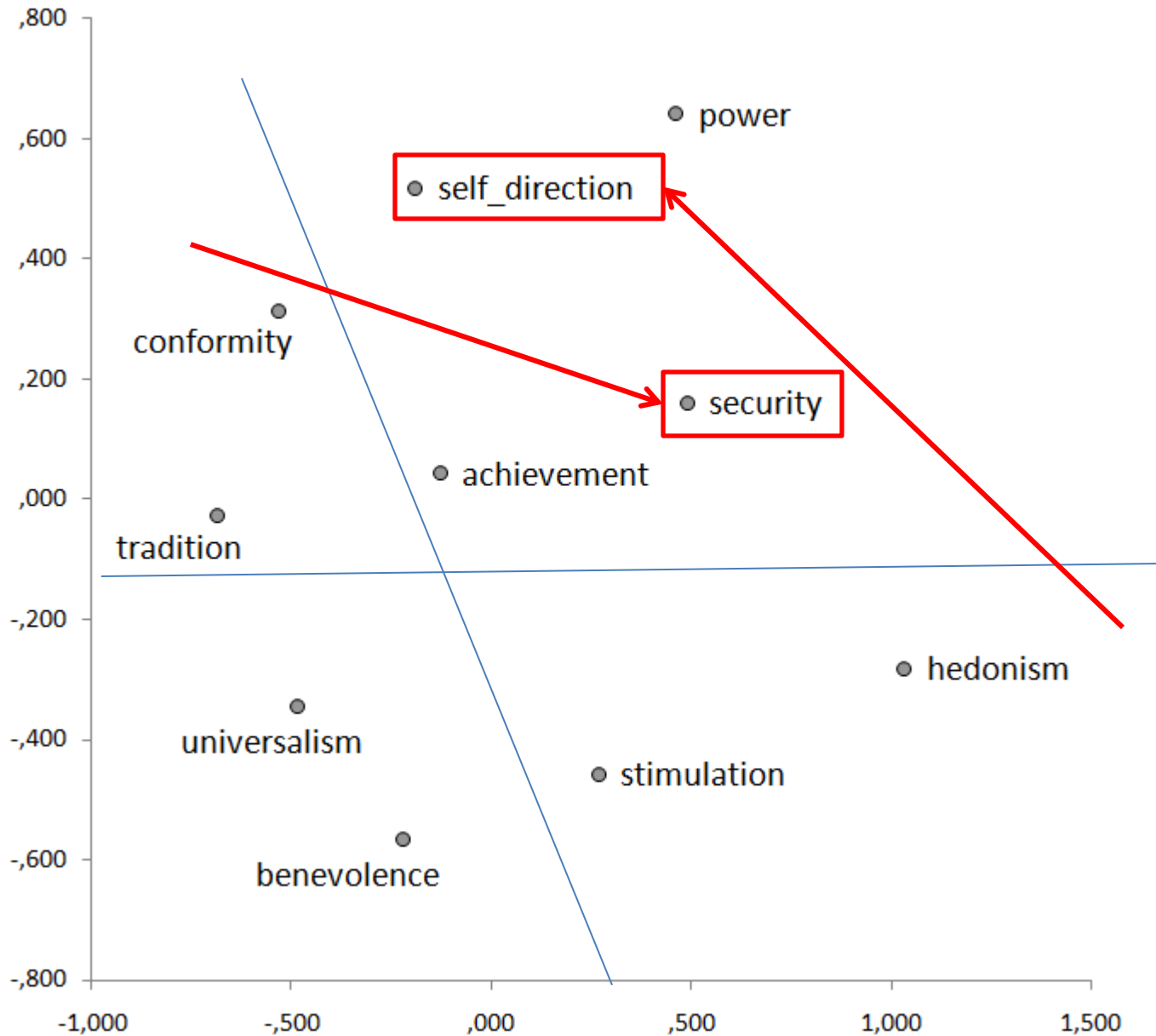
Looking for configural invariance (one regression weight constrained) among WVS countries

- 27 countries with highest **Alpha** were included:
  CFI=0.859, RMSEA=0.019

- Reduced no of countries to **advanced industrial** 14 European + US and Australia:
  CFI=0.869, RMSEA=0.023

- Reduced no of countries to 11 European:
  CFI=0.871, RMSEA=0.024

Some possible reasons of <u>lacking</u> the structural invariance

- Too small number of items (10);
- Wrong items chosen for representing value domains;
- Change of wordings of 10 items;
- Quality of surveys (e.g. samples, translations);
- Modes of survey.

- Substantive reason: it's possible that in some countries values are structured differently (opposes Schwartz's theory of universals in values)

1. Differences in wording

Universalism items

ESS	WVS
19 He strongly believes that people should **care for nature**. Looking after the environment is important to him.	V88 Looking after the environment is important to this person; to care for nature.
3 He thinks it is important that every person in the world should be **treated equally**. He believes everyone should have equal opportunities in life.	OMITTED
8 It is important to him to **listen to people** who are different from him. Even when he disagrees with them, he still wants to understand them.	OMITTED

Tradition and Conformity items

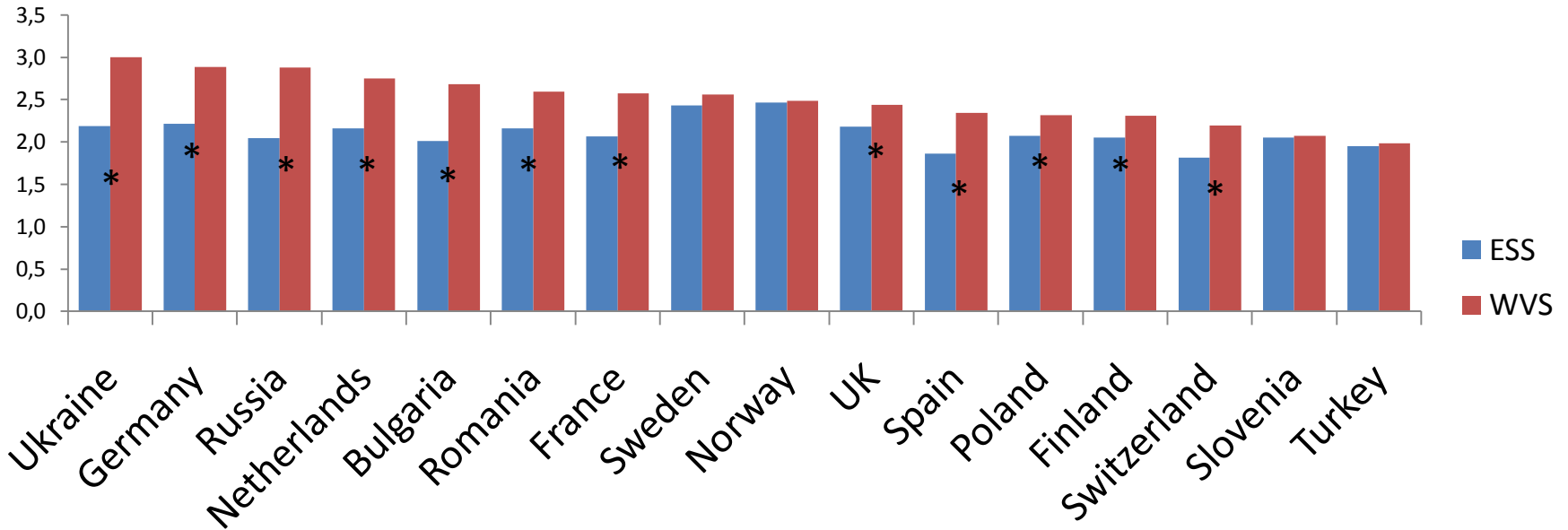| ESS	WVS
20 **Tradition** is important to him. He tries to follow the customs handed down by his religion or his family.	V89 Tradition is important to this person; to follow the customs handed down by one's religion or family.
9 It is important to him to be **humble and modest**. He tries not to draw attention to himself.	OMITTED
16 It is important to him always to **behave properly**. He wants to avoid doing anything people would say is wrong.	V87 It is important to this person to always behave properly; to avoid doing anything people would say is wrong.
7 He believes that people should **do what they're told**. He thinks people should **follow rules** at all times, even when no-one is watching.	OMITTED

Differences in wording

Comparing to ESS, in WVS:
- portraits were shorten,
- were mad applicable for both males and females.

*the sequence of value portraits in questionnaire was kept

Quality of survey issue: systematic overestimation of "universalism" item

Values before centering. * Differences are significant with F criteria, p<0.001

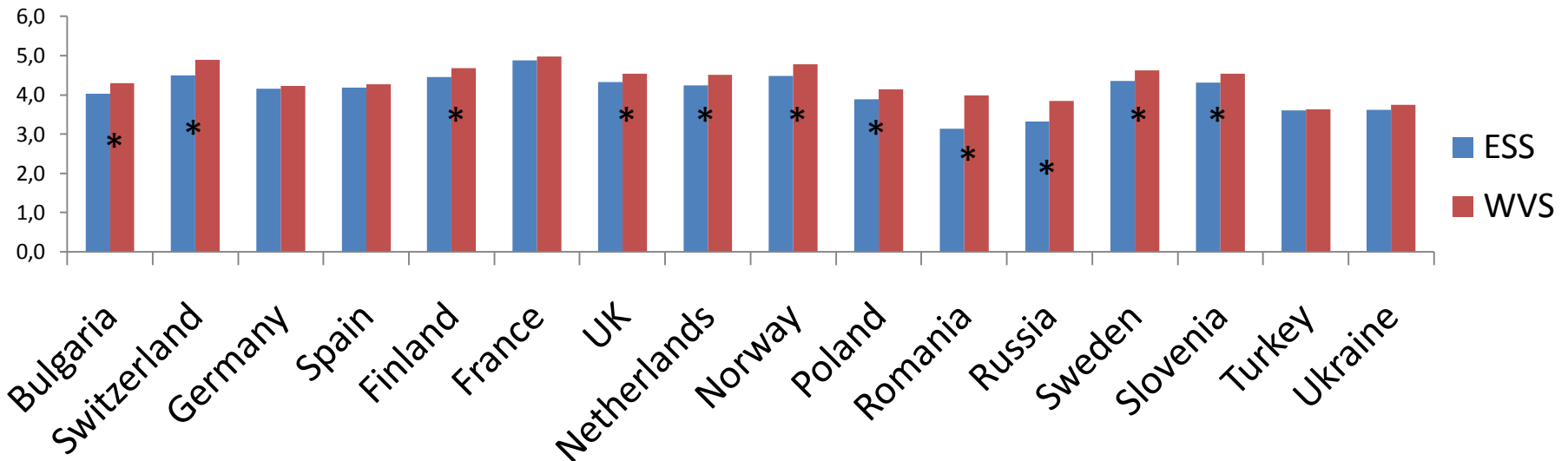| ESS	WVS
19 He strongly believes that people should care for nature. Looking after the environment is important to him.	V88. Looking after the environment is important to this person; to care for nature. [parts changed places, "he strongly believes that people should" removed]

Quality of survey issue: systematic overestimation of "security" item in WVS

Values before centering. * Differences are significant with F criteria, p<0.001
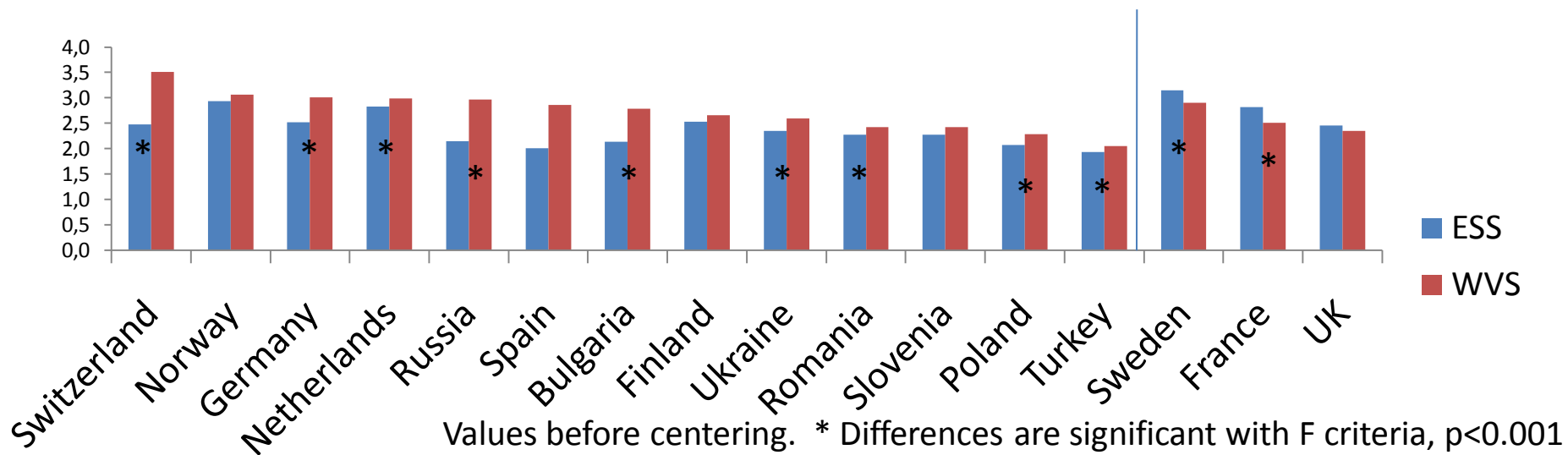
ESS	WVS
5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety. [he avoids]	V82. Living in secure surroundings is important to this person; to avoid anything that might be dangerous [important to avoid]

Values before centering. * Differences are significant with F criteria, p<0.001

Quality of survey issue: systematic overestimation of "achievement" item in WVS

Values before centering. * Differences are significant with F criteria, p<0.001

ESS	WVS
13 Being very successful is important to him. He hopes people will recognise his achievements.	V85. Being very successful is important to this person; to have people recognize one's achievements.

Acquiescence factor in WVS is higher than in ESS battery (overall mean rating)
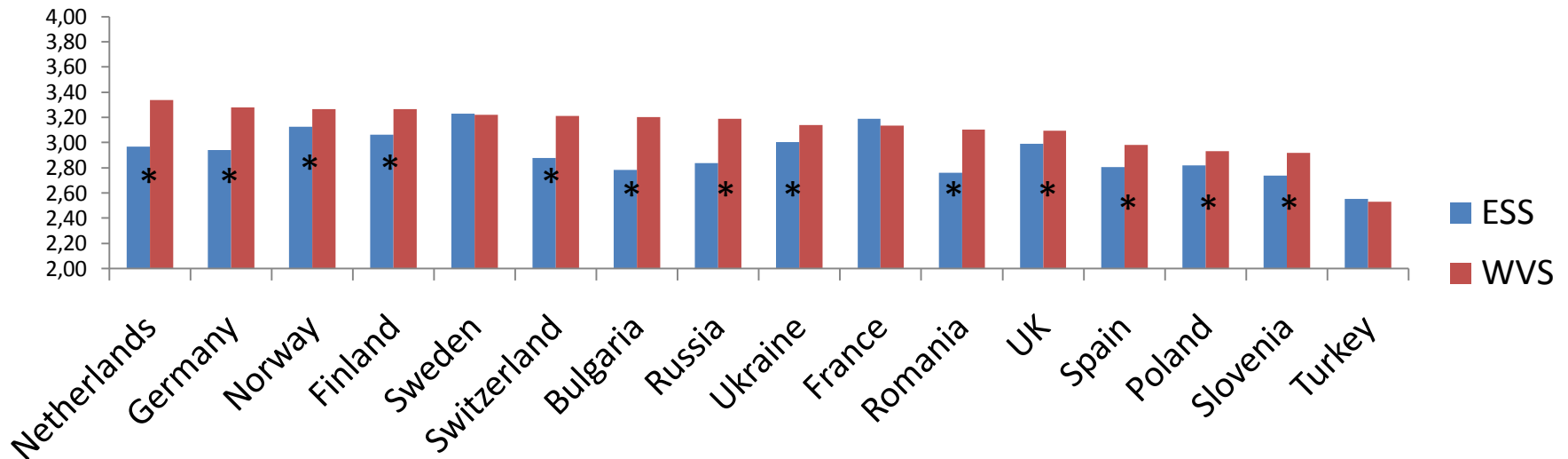
Overall means of 10 items. * Differences are significant with F criteria, p<0.001

In most countries the mean rating in WVS is overestimated. This overall mean is used in adjusting every other value index (centering). Hence, all the centered value indices reflect this overestimation.

Reasons:

- Differences in wording
- Differences in translation of the master questionnaire
- Mode of survey (self-completion vs. face-to-face)
- Other items in the questionnaire

Schwartz value theory

- Idea of universality across cultures
- Idea of circular structure
- Idea of continuity
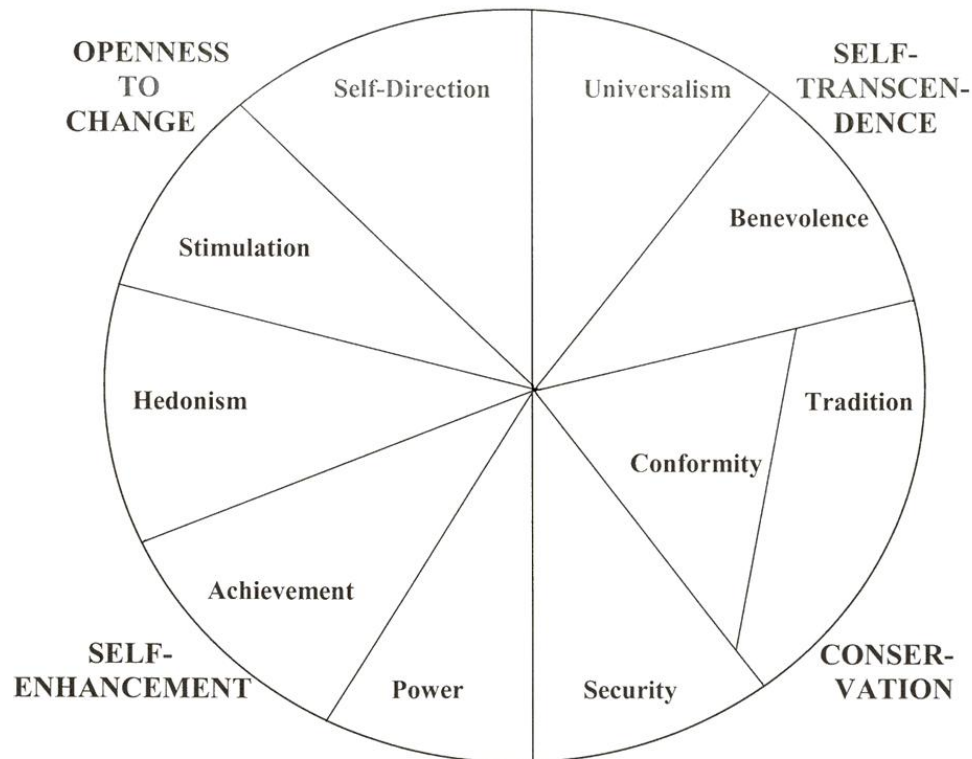
The idea of continuity of values contradicts with the idea of measurability with the distinct indices
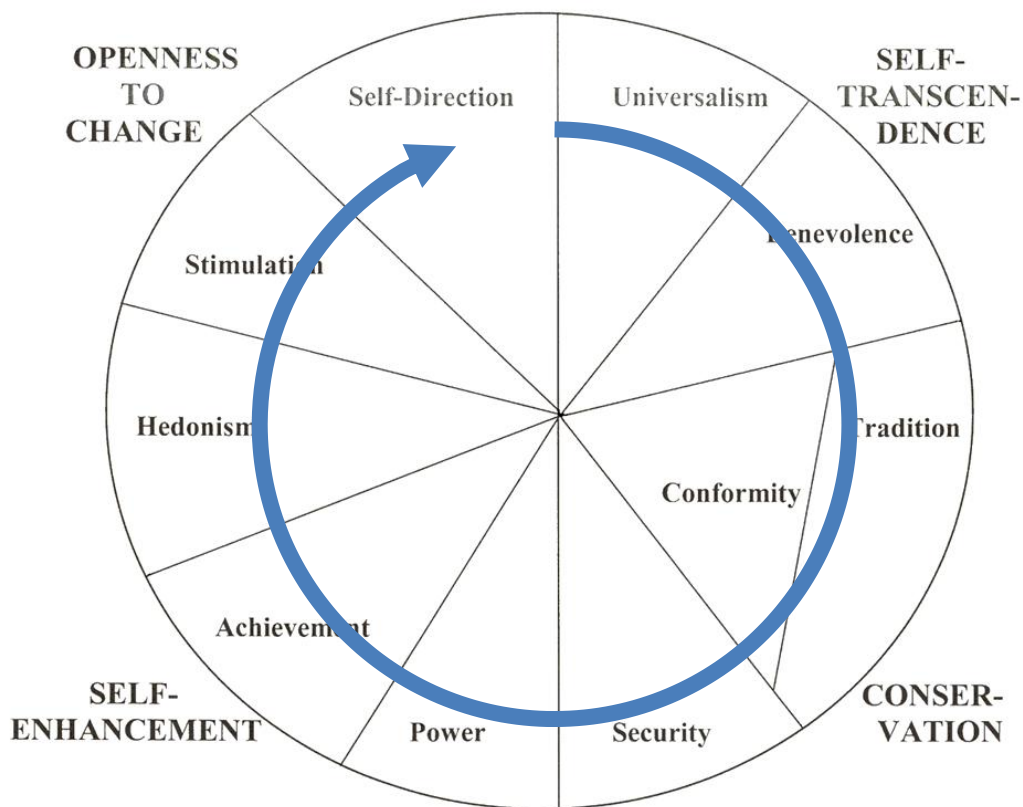
If we can have <u>distinct</u> indices we loose the <u>continuity</u> (in some degree)

So, the whole idea of deriving value indices (of measuring the value continuum with single indices) is problematic.

The research question: what is validity of value measures?

- NOT: Is this or that index represent the given value domain? (domains are not continuum)

- Are given indicators represent the circular structure of value continuum and is this structure universal across cultures?

Additional loadings

- Puristic CFA tries to solve the problem of distinct indices which indicators (items) shouldn't correlate. MGCFA assesses the universality of these single indices.

- CFA with additional loadings to close indicators answers the question whether indicators (universally) represent value continuum.

Looking for invariance among WVS countries
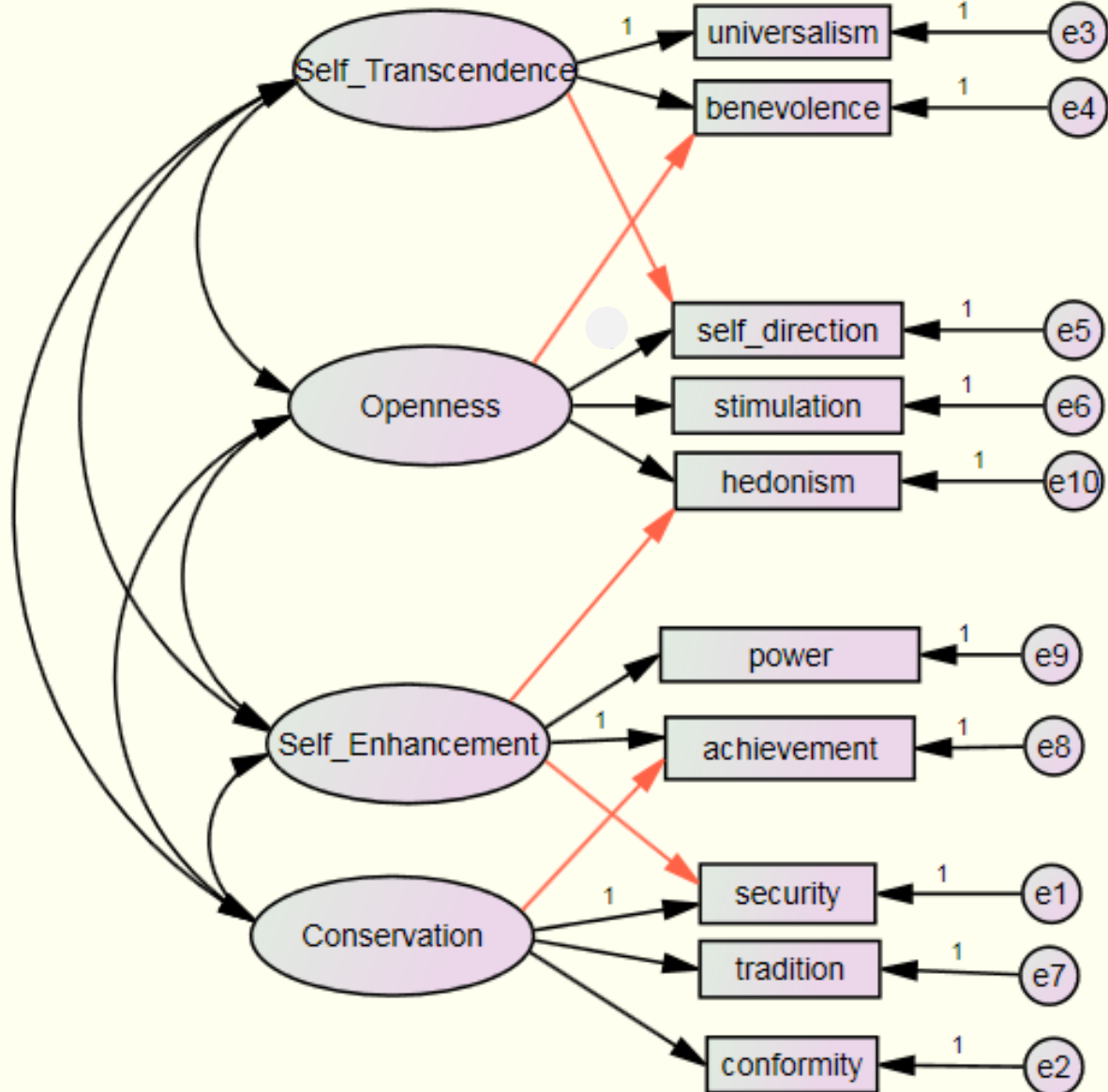
11 European countries with additional loadings
- Unconstrained (configural invariance): *CFI=0.924, RMSEA=0.024*

- Regression weights constrained equal (metric invariance):
- *CFI=0.904, RMSEA=0.023*

- Intercepts constrained (scalar invariance): *CFI=0.611, RMSEA=0.041 Not supported*

11 European countries in which metric invariance was supported

- Bulgaria
- Finland
- Germany
- Great Britain
- Netherlands
- Poland
- Romania
- Russia
- Serbia
- Slovenia
- Ukraine

Additional loadings reflect circle structure of the value concepts.
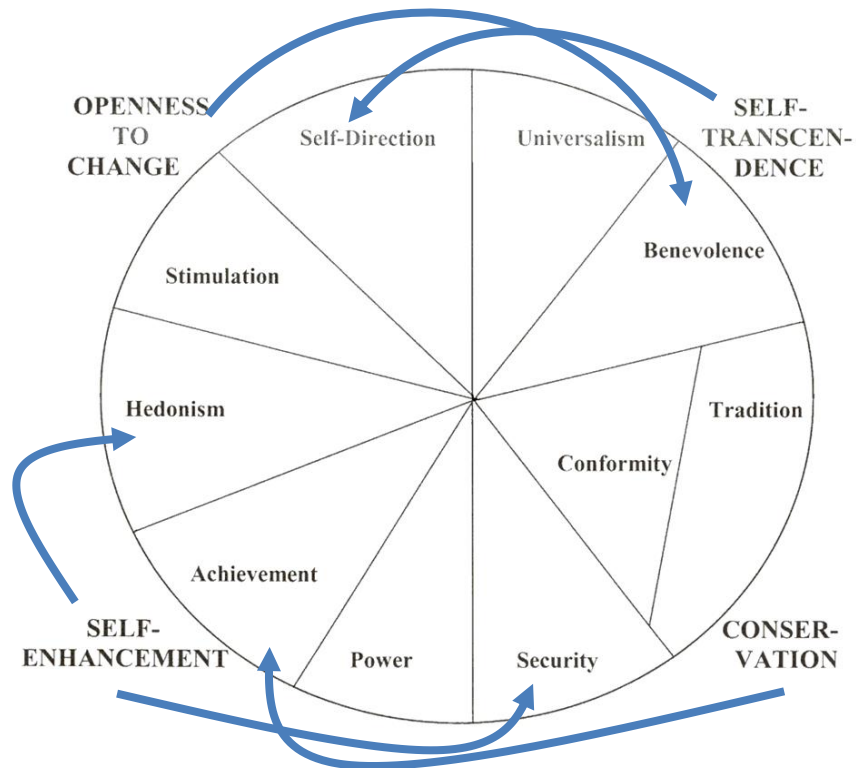
- Going back to the idea of continuity:
  - This model reflect the idea of continuity better than distinct value indices
  - Maybe it is the better measure of value circum than the indices
- Purist psychometrican would say PVQ10 in WVS is not valid.
- Taking into account the idea of continuity, additional loadings are OK and PVQ10 in WVS is of use (with certain limitations)

Suggestions for using 10 items in WVS

Countries:

- 11 European countries mentioned (alternative lists of countries are possible if found) on the ~~metric~~ <u>configural</u> invariance level

Indices:

- the whole MGCFA model with additional loadings

- 4 value categories (if Schwartz's reflective model is accepted)

- 10 original items (if formative approach is accepted) BUT not connect it with Schwartz theory

Comparability with other Schwartz-based value measures:

- not comparable with ESS due to larger number of items, different wording and different mode of survey

- if 10 original items are compared with ESS be aware of higher acquiescence and different wording

Thank you for your attention!

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