Social tolerance under harsh conditions

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Key Question:

The aim is to address the problem of social tolerance in societies under harsh, or difficult, conditions, such as poverty, low quality of life, considerable social differentiation, political instability, state of war and other deprivation circumstances. This study could enrich the understanding of social tolerance through a cross-country analysis and exploration of relationships between WVS data on tolerance, and other sociological and statistical data, including a number of global indices.

At the current stage, this exploratory research is intended to define, using statistical analysis, more close focus on particular aspects of social tolerance, its inner structure and variation in cross-country comparison.

The scope of the project:

1. Cross-country view (using WVS database)

2. Within-country view (using regional and local comparable data) – in perspective. The first attempt – a survey in the Krasnoyarsk Territory (March 2011, N = 1350 respondents) with the same indicators on tolerance and independent variables as in the cross-country project.

Core Variables and Hypotheses:

The research is intended to explore the structure of social tolerance and its` correlation with quality of life, life satisfaction, social optimism, existential security, social status, social identity etc. using WVS data, at the cross-country level.

The central hypothesis is that there is a strong relationship between social tolerance and the degree to which the respondents` life conditions are depriving in a broad sense.

Previous research has demonstrated that respondents` level of income, well-being, social status, region of residence, values, nationality, and other important characteristics are significantly related to social tolerance. For comparison and testing of the hypotheses, this research employed a number of variables from WVS database, demonstrating social and economic status of a respondent. In order to prove the hypotheses, several additional independent variables were applied. For example, **indexes based on national statistics**, that can act as indicators of difficult conditions within a country or low level of its development: GDP per capita, GNI per capita, life expectancy at birth, intentional homicide rate, robbery rate.

One of the objectives of the research is to study the relationship between WVS data and a number of **global indices**. It will help to define and explain the level of social tolerance in the countries, that are in harsh conditions, undeveloped, oppressed, non-democratic, corrupted, post- or current colonial countries and regions, countries in the state of war etc.

Analyses and Modelling:

Correlation analysis, logistic regression, discriminant analysis, optimal scaling, multidimensional scaling, factor analysis, cluster analysis will be applied in this research.

Targeted Data Base:

To test the research question, the World Values Survey data, a number of global indices, World Bank, UN and national demographic and social statistics has been used.

Social tolerance is a complex, multidimensional concept, which is difficult to measure, yet it has been investigated and discussed in sociological literature since 1960-ies. The conceptions of tolerance, its schemes and measurement vary a lot. This project will try to add to the conversation.

First, I will briefly place this report into the conversation why tolerance is important, how it can be defined and measured.

Second, I`d like to present a simple model that shows that my approach is one valid attempt to tolerance measurement.

Third, I`ll briefly present some results of investigation of correlation between tolerance level and different indicators of harsh conditions as well as socio-demographic factors.

Finally, I`d like to offer suggestions for future work on measuring social tolerance.

What is social tolerance?

In general, tolerance is an acceptance of others with mutual respect and understanding. The UN's Declaration of Principles on Tolerance defines tolerance as "an active attitude" and a "responsibility that upholds human rights, pluralism (including cultural pluralism), democracy and the rule of law".

- social tolerance
- political tolerance
- religious tolerance
- intercultural tolerance
- crime and deviance tolerance
- homosexual tolerance, etc.

Tolerance, as well as trust and networks, plays a great role in social capital formation.

Along with trust, subjective well-being, political activism and self-expression, **tolerance** is intrinsic to post-industrial societies with high levels of existential security. (R. Inglehart, C. Welzel)

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The concept of social tolerance has been studied in various aspects, within different theoretical frames, but the most common and relevant to the cross-country level research are the modernization theory, revised by R. Inglehart and the conception of social capital.

Investigation of regional, within-country aspects of social tolerance will also require other theoretical approaches, as the reasons and factor of national tolerance and intolerance are varied and very cultural specific.

Social tolerance is assessed by World Values Survey`s question "On this list are various groups of people. Could you please sort out any that you would not like to have as neighbors?"

6 indicators on tolerance, asked in the interview in most countries in all waves:

A124-01.- Neighbours: People with a criminal record;

A124-02.- Neighbours: People of a different race;

A124-03.- Neighbours: Heavy drinkers;

A124-04.- Neighbours: Emotionally unstable people;

A124-05.- Neighbours: Muslims;

A124-06.- Neighbours: Immigrants/foreign workers;

9 indicators on tolerance asked in 48 countries in the 5th wave:

A124-02.- Neighbours: People of a different race;

A124-03.- Neighbours: Heavy drinkers;

A124-06.- Neighbours: Immigrants/foreign workers;

A124-07.- Neighbours: People who have AIDS

A124-08.- Neighbours: Drug addicts

A124-09.- Neighbours: Homosexuals

A124-12.- Neighbours: People of a different religion

A124-42.- Neighbours: Unmarried couples living together

A124-43.- Neighbours: People who speak a different language

Factor analysis, Varimax

all waves, 6 variables:

Compone nt	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,201	36,681	36,681	2,201	36,681	36,681	1,929	32,155	32,155
2	1,392	23,193	59,874	1,392	23,193	59,874	1,663	27,719	59,874
3	,732	12,204	72,078						
4	,602	10,039	82,117						
5	,585	9,747	91,864						
6	,488	8,136	100,000						

Total Variance Explained

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component	
	1	2
Neighbours: People with a criminal record	,040	,748
Neighbours: People of a different race	,812	,035
Neighbours: Heavy drinkers	,010	,803
Neighbours: Emotionally unstable people	,214	,656
Neighbours: Immigrants/foreign workers	,814	,086
Neighbours: Muslims	,748	,143
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Multidimensional scaling

Derived Stimulus Configuration

Euclidean distance model

	a124_01	a124_02	a124_03	a124_04	a124_05	a124_06	N_BREAK	doly
1	.	0	1	.	.	0	28229	10,96
2	1	0	1	1	.	0	17361	6,74
3	.	.	.	.	.	.	15732	6,11
4	.	0	0	.	.	0	14646	5,69
5	0	0	0	0	.	0	12615	4,90
6	1	0	1	0	.	0	11307	4,39
7	0	0	0	0	0	0	11000	4,27
8	1	0	1	1	0	0	8361	3,25
9	1	0	1	0	0	0	8242	3,20
10	0	0	1	0	.	0	6182	2,40
11	1	0	0	0	.	0	5783	2,24
12	.	0	1	.	.	1	5555	2,16
13	1	0	0	0	0	0	5377	2,09
14	0	0	1	1	.	0	5228	2,03
15	.	1	1	.	.	1	5077	1,97
16	1	1	1	1	.	1	4792	1,86
17	1	.	.	.	.	.	4574	1,78
18	0	0	1	0	0	0	4483	1,74
19	1	0	1	1	.	1	4272	1,66
20	1	0	0	1	.	0	3096	1,20
21	0	0	0	1	.	0	2917	1,13
22	.	0	1	.	0	0	2826	1,10
23	0	0	1	1	0	0	2725	1,06
24	1	1	1	1	1	1	2674	1,04
25	0	1	0	0	.	1	2465	0,96

aggr.sav [DataSet1] - SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help
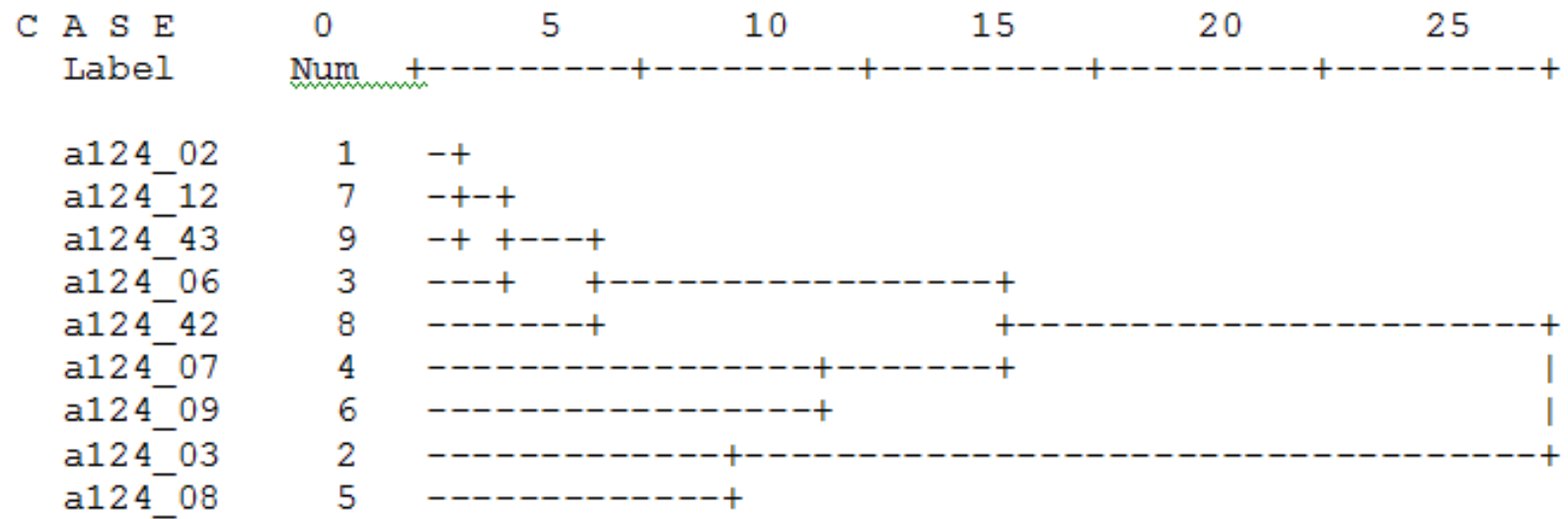
1 : doly   10,958590356254149

Visible: 8 of 8 Variables

Data View | Variable View

SPSS Statistics Processor is ready

DENDROGRAM USING AVERAGE LINKAGE (BETWEEN GROUPS)

```
C A S E           0         5        10        15        20        25
    Label       Num    +---------+---------+---------+---------+---------+

    a124_02      1     -+
    a124_12      7     -+-+
    a124_43      9     -+ +---+
    a124_06      3     ---+   +-----------------+
    a124_42      8     -------+                 +-------------------------+
    a124_07      4     -----------------+-------+                         |
    a124_09      6     -----------------+                                 |
    a124_03      2     -------------+-----------------------------------+
    a124_08      5     -----------+
```

Univariate Analysis of Variance

(dependent variable – tolerance index based on factor scores, 6 variables, all waves)

1. Sex R Squared = 0,000
2. Income level R Squared = 0,001
3. How proud of nationality R Squared = 0,001
4. Wave R Squared = 0,003
5. Religious person R Squared = 0,003
6. Age R Squared = 0,004
7. Feeling of happiness R Squared = 0,005
8. State of health R Squared = 0,005
9. Satisfaction with financial situation of household R Squared = 0,005
10. Job satisfaction R Squared = 0,005
11. Social class (subjective) R Squared = 0,006
12. Self-positioning in political scale R Squared = 0,008
13. Satisfaction with your life R Squared = 0,013
14. Post-Materialist index 4 item R Squared = 0,017
15. Profession/job R Squared = 0,023

16. Country/region and Social class (subjective) R Squared = 0,125
17. Country/region and Income level R Squared = 0,160
18. Country/region R Squared = 0,169
19. Country/region and Sex R Squared = 0,171
20. Country/region and Satisfaction with financial situation of household R Squared = 0,173
21. Country/region and How proud of nationality R Squared = 0,175
22. Country/region and Post-Materialist index 4 item R Squared = 0,176
23. Country/region and State of health R Squared = 0,176
24. Country/region and Satisfaction with your life R Squared = 0,179
25. Country/region and Feeling of happiness R Squared = 0,183
26. Country/region and Self-positioning in political scale R Squared = 0,184
27. Country/region and Wave R Squared = 0,189
28. Country/region and Religious person R Squared = 0,196
29. Country/region and Profession/job R Squared = 0,198
30. Country/region and Age R Squared = 0,220
31. Country/region and Job satisfaction R Squared = 0,244

FACTOR ANALYSIS, VARIMAX. 5TH WAVE, 9 VARIABLES

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,035	33,718	33,718	3,035	33,718	33,718	2,915	32,389	32,389
2	1,844	20,491	54,210	1,844	20,491	54,210	1,964	21,820	54,210
3	,804	8,932	63,141						
4	,698	7,761	70,902						
5	,555	6,171	77,073						
6	,555	6,163	83,236						
7	,532	5,915	89,151						
8	,509	5,658	94,809						
9	,467	5,191	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component	
	1	2
Neighbours: People of a different race	,772	-,028
Neighbours: Heavy drinkers	-,065	,714
Neighbours: Immigrants/foreign workers	,714	,093
Neighbours: People who have AIDS	,461	,534
Neighbours: Drug addicts	-,206	,754
Neighbours: Homosexuals	,243	,693
Neighbours: People of a different religion	,775	-,038
Neighbours: Unmarried couples living together	,564	,324
Neighbours: People who speak a different language	,756	-,070

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Derived Stimulus Configuration

Euclidean distance model
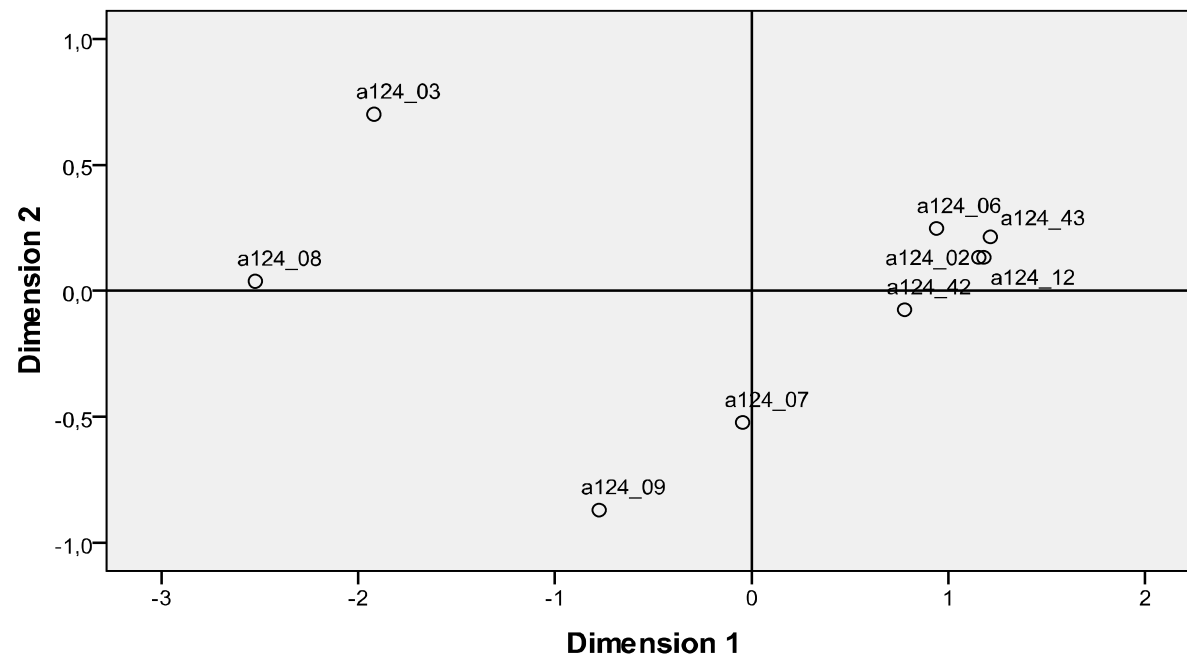
Country	Social tolerance index factor scores, wave 5	Florida global tolerance index (2005)
Sweden	-0,759	5,42
Norway	-0,731	
Andorra	-0,73	
Argentina	-0,72	18,97
Canada	-0,632	13,37
Spain	-0,604	15,47
Uruguay	-0,597	
Switzerland	-0,59	
Netherlands	-0,551	6,7
Great Britain	-0,542	17,62
Brazil	-0,522	
Australia	-0,513	
Germany	-0,498	16,3
Chile	-0,429	22,22
United States	-0,427	17,62
Peru	-0,425	29,22
Trinidad and Tobag	-0,397	
South Africa	-0,357	33,07
Mexico	-0,34	29,58
Italy	-0,328	23,25
Finland	-0,307	17,1
Poland	-0,164	31,82
Burkina Faso	-0,083	
Ethiopia	-0,049	
Ukraine	-0,008	37,63
Romania	0,006	43,18
Bulgaria	0,012	40,32
Taiwan	0,077	
Cyprus	0,082	
Serbia	0,14	37,48
France	0,141	13,62
Russian Federation	0,142	33,47
Moldova	0,322	
China	0,331	38,63
Zambia	0,369	
Mali	0,375	
Thailand	0,385	
Ghana	0,441	
Vietnam	0,457	34,42
Slovenia	0,457	29,4
Georgia	0,58	
Rwanda	0,641	
Malaysia	0,693	
India	0,723	32,5
Indonesia	0,835	43,15
South Korea	0,839	52,81
Turkey	0,845	54,4
Jordan	1,742	54,53

- **Global Tolerance Index** was originally designed by Richard Florida for 45primarily western countries by using responses on the World Values Survey. GTI is comprised of two sub-indices, the "Values Index" and the "Self-Expression Index". In 2008 GTI was enhanced by additional data (62 countries in total) by J. Das, C. DiRienzo and T. Tiemann. Their findings support and extend those of Florida (2002) and Florida and Tingali (2004) as they find that more tolerant countries have greater net immigration, adding more heterogeneity. They also find that more tolerant countries have higher GDP per capita, and score higher on the Human Development Index and the Global Competitiveness Index.

The Prosperity Index assesses 110 countries, accounting for over 90 percent of the world's population, and is based on 89 different variables, each of which has a demonstrated effect on economic growth or on personal wellbeing. The Prosperity Index is a global index that seeks to understand how economic fundamentals, health, freedom, governance, safety, education, entrepreneurial opportunity, and social capital influence a country's economic growth and the happiness of its citizens. It finds that successful countries enjoy a "virtuous cycle" of economic liberty and growth, political freedom and good governance, and enterprising and happy citizens, which mutually reinforce each other on the path to prosperity. The Index consists of eight sub-indexes, each of which represents a fundamental aspect of prosperity: 1. Economy; 2. Entrepreneurship & Opportunity (E&O); 3. Governance; 4. Education; 5. Health; 6. Safety & Security; 7. Personal Freedom and 8. Social Capital.

Each sub-index assesses the effect of a range of variables on per capita GDP and the subjective wellbeing of citizens. In this way, the Prosperity Index allows us to discover the non-economic effects of economic reality, and the effects of economic indicators on life satisfaction.

Human Development Index (**HDI**), a composite statistic used to rank countries by level of "human development" and separate developed (high development), developing (middle development), and under-developed (low development) countries. The statistic is composed from data on life expectancy, education and per-capita gross national income (as an indicator of standard of living) collected at the national level. It is important, that the concept of human development focuses on the ends rather than the means of development and progress. As UNDP claims, the real objective of development should be to create an enabling environment for people to enjoy long, healthy and creative lives. Thus, human development denotes both the process of widening people's choices and improving their well-being. The most critical dimensions of human development are: a long and healthy life, knowledge and a decent standard of living. Additional concerns include social and political freedoms. The concept distinguishes between two sides of human development. One is the formation of human capabilities, such as improved health or knowledge. The other is the enjoyment of these acquired capabilities, for work or for leisure.

Gross domestic product (**GDP**) **per capita** (2008 PPP US$) refers to the market value of all final goods and services produced within a country in a given period. It is often considered an indicator of a country's standard of living. The GDP dollar estimates are derived from purchasing power parity (PPP) calculations. Purchasing power parity (PPP) GDP is GDP converted to constant international dollars using PPP rates. An international dollar has the same purchasing power over GDP that a U.S. dollar has in the United States. Using a PPP basis is arguably more useful when comparing generalized differences in living standards on the whole between nations because PPP takes into account the relative cost of living and the inflation rates of the countries, rather than using just exchange rates which may distort the real differences in income.

Gross national income (**GNI**) **per capita** (constant 2008 PPP US$). **Gross** national income comprises the total value produced within a country (i.e. its gross domestic product), together with its income received from other countries notably interest and dividends), less similar payments made to other countries. The GNI consists of: the personal consumption expenditures, the gross private investment, the government consumption expenditures, the net income from assets abroad (net income receipts), and the gross exports of goods and services, after deducting two components: the gross imports of goods and services, and the indirect business taxes. The GNI is similar to the gross national product (GNP), except that in measuring the GNP one does not deduct the indirect business taxes.

The **Happy Planet Index (HPI)** is an index of human well-being and environmental impact that was introduced by the New Economics Foundation (NEF) in July 2006. The index is designed to challenge well-established indices of countries' development, such as Gross Domestic Product (GDP) and the Human Development Index (HDI), which are seen as not taking sustainability into account. In particular, GDP is seen as inappropriate, as the usual ultimate aim of most people is not to be rich, but to be happy and healthy. Furthermore, it is believed that the notion of sustainable development requires a measure of the environmental costs of pursuing those goals. The HPI is based on general utilitarian principles — that most people want to live long and fulfilling lives, and the country which is doing the best is the one that allows its citizens to do so, whilst avoiding infringing on the opportunity of future people and people in other countries to do the same. In effect it operationalises the IUCN's (World Conservation Union) call for a metric capable of measuring 'the production of human well-being (not necessarily material goods) per unit of extraction of or imposition upon nature'. Each country's HPI value is a function of its average subjective life satisfaction, life expectancy at birth, and ecological footprint per capita. The exact function is a little more complex, but conceptually it approximates multiplying life satisfaction and life expectancy, and dividing that by the ecological footprint. Most of the life satisfaction data is taken from the World Values Survey and World Database of Happiness, but some is drawn from other surveys, and some is estimated using statistical regression techniques.

The **Democracy Index** is an index compiled by the Economist Intelligence Unit that claims to measure the state of democracy in 167 countries, of which 166 are sovereign states and 165 are UN member states. The Economist Intelligence Unit's Democracy Index is based on 60 indicators grouped in five different categories: electoral process and pluralism, civil liberties, functioning of government, political participation and political culture. The five categories are interrelated and form a coherent conceptual whole. The condition of having free and fair competitive elections, and satisfying related aspects of political freedom, is clearly the basic requirement of all definitions.

The Human Poverty Index is an indication of the standard of living in a country, developed by the United Nations. For highly developed countries, the UN considers that it can better reflect the extent of deprivation compared to the Human Development Index. The Human Development Reports website summarizes this as "A composite index measuring deprivations in the three basic dimensions captured in the human development index – a long and healthy life, knowledge and a decent standard of living." The Oxford Poverty and Human Development Initiative (OPHI) of Oxford University and the Human Development Report Office of the United Nations Development Programme (UNDP) launched in July 2010 a new poverty measure that gives a "multidimensional" picture of people living in poverty which its creators say could help target development resources more effectively. The Multidimensional Poverty Index (MPI) supplants the Human Poverty Index, which had been included in the annual Human Development Reports since 1997. Like development, poverty is multidimensional — but this is traditionally ignored by headline figures. The Multidimensional Poverty Index (MPI), published for the first time in the 2010 Report, complements money-based measures by considering multiple deprivations and their overlap. The index identifies deprivations across the same three dimensions as the HDI and shows the number of people who are poor (suffering a given number of deprivations) and the number of deprivations with which poor households typically contend.

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The Gender Inequality Index (GII). The disadvantages facing women and girls are a major source of inequality. All too often, women and girls are discriminated against in health, education and the labor market – with negative repercussions for their freedoms. We introduce a new measure of these inequalities built on the same framework as the HDI and the IHDI – to better expose differences in the distribution of achievements between women and men. Countries with unequal distribution of human development also experience high inequality between women and men, and countries with high gender inequality also experience unequal distribution of human development.

The Global Peace Index (GPI) is an attempt to measure the relative position of nations' and regions' peacefulness. It is the product of Institute for Economics and Peace and developed in consultation with an international panel of peace experts from peace institutes and think tanks with data collected and collated by the Economist Intelligence Unit. The list was launched first in May 2007, then continued on May 2008, 2 June 2009, and most recently 10 June 2010. It is claimed to be the first study to rank countries around the world according to their peacefulness. It ranks 149 countries (up from 121 in 2007). Factors examined by the authors include internal factors such as levels of violence and crime within the country and factors in a country's external relations such as military expenditure and wars.

Life expectancy at birth (years), 2006.

Intentional homicide, rate per 100,000 population. Source: International Homicide Data. United Nations Office on Drugs and Crime. UNODC Homicide Statistics are drawn from both international and national sources. Sources used include both criminal justice and public health statistics. Data obtained from public health and law enforcement institutions measure slightly different phenomena and are therefore unlikely to provide identical numbers. Varying legal definitions of homicide among countries, together with differences in capacity, criteria and approaches to case recording, mean that a comparative analysis of homicide statistics must be conducted cautiously. In particular, many developing countries show significant differences between public health and police statistics.

Robbery rate – amount of property crime that involves the use of violence or threat of violence, including mugging, bag snatching and theft with violence, expressed per 100,000 people.
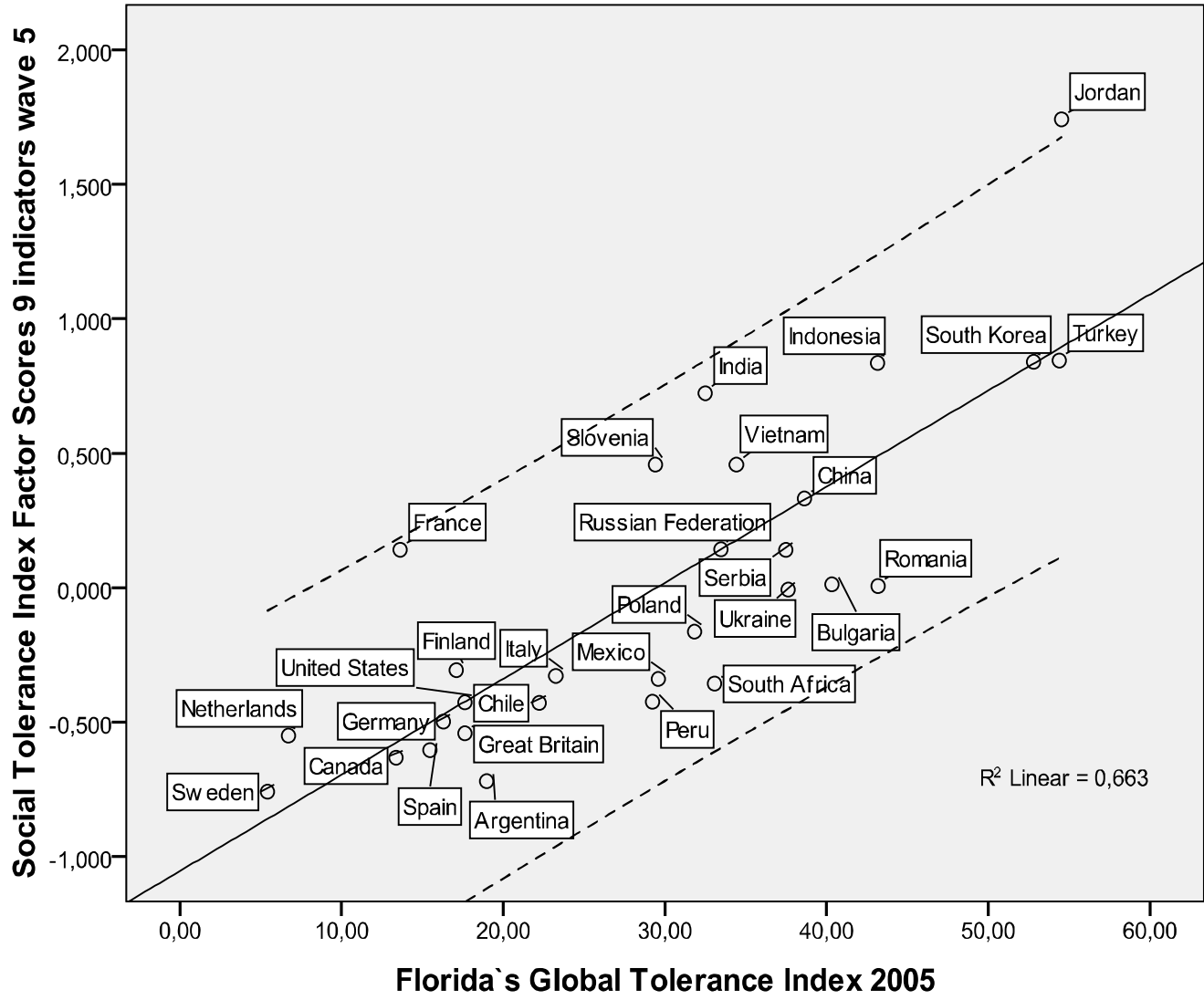
		Social Tolerance Index Factor Scores 9 indicators wave 5
Social Tolerance Index Factor Scores 9 indicators wave 5	Pearson Correlation	1
	Sig. (2-tailed)	
	N	48
Florida`s Global Tolerance Index 2005	Pearson Correlation	,814**
	Sig. (2-tailed)	,000
	N	29
The 2007 Legatum Prosperity Index	Pearson Correlation	-,563**
	Sig. (2-tailed)	,000
	N	43
Human Development Index 2007	Pearson Correlation	-,446**
	Sig. (2-tailed)	,002
	N	47
GDP per person employed (constant 1990 PPP $) 2006 World Bank data	Pearson Correlation	-,515**
	Sig. (2-tailed)	,000
	N	43
GDP per capita (constant 2008 PPP US$) 2006 UNDP data	Pearson Correlation	-,593**
	Sig. (2-tailed)	,000
	N	47
GNI per capita (constant 2008 PPP US$) - calculated 2006	Pearson Correlation	-,587**
	Sig. (2-tailed)	,000
	N	47

		Social Tolerance Index Factor Scores 9 indicators wave 5
Happy Planet Index 2006	Pearson Correlation	-,002
	Sig. (2-tailed)	,989
	N	46
Democracy Index	Pearson Correlation	-,629**
	Sig. (2-tailed)	,000
	N	47
Global Peace Index 2008	Pearson Correlation	,333*
	Sig. (2-tailed)	,024
	N	46
Gender Inequality Index 2008 UNDP data	Pearson Correlation	,503**
	Sig. (2-tailed)	,001
	N	43
Life expectancy at birth (years) 2006 UNDP data	Pearson Correlation	-,364*
	Sig. (2-tailed)	,013
	N	46
Multidimensional Poverty Index 2008 UNDP data	Pearson Correlation	,105
	Sig. (2-tailed)	,616
	N	25
Intentional homicide rate 2008 UNDP data	Pearson Correlation	-,161
	Sig. (2-tailed)	,289
	N	45
Robbery rate (per 100,000) 2008 UNDP data	Pearson Correlation	-,396*
	Sig. (2-tailed)	,020
	N	34
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (2-tailed).		

Model Summary and Parameter Estimates

Dependent Variable:Social Tolerance Index Factor Scores 9 indicators wave 5

| Equation	Model Summary					Parameter Estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	,663	53,009	1	27	,000	-1,053	,036		
Logarithmic	,517	28,867	1	27	,000	-2,422	,744		
Inverse	,305	11,870	1	27	,002	,406	-8,843		
Quadratic	,706	31,253	2	26	,000	-,593	-,002	,001	
Cubic	,709	20,264	3	25	,000	-,779	,024	,000	1,060E-5
Compound[a]	.	.	.	.	.	,000	,000		
Power[a]	.	.	.	.	.	,000	,000		
S[a]	.	.	.	.	.	,000	,000		
Growth[a]	.	.	.	.	.	,000	,000		
Exponential[a]	.	.	.	.	.	,000	,000		
Logistic[a,,b]	.	.	.	.	.	,000	,000		

The independent variable is Florida`s Global Tolerance Index 2005.

a. The dependent variable (Social Tolerance Index Factor Scores 9 indicators wave 5) contains non-positive values. The minimum value is -,759. Log transform cannot be applied. The Compound, Power, S, Growth, Exponential, and Logistic models cannot be calculated for this variable.

b. The dependent variable (Social Tolerance Index Factor Scores 9 indicators wave 5) contains values that are larger than or equal to the input upper bound for the Logistic model. The maximum value is 1,742. The Logistic model is not calculated for this variable.

Social Tolerance Index Factor Scores 9 indicators wave 5
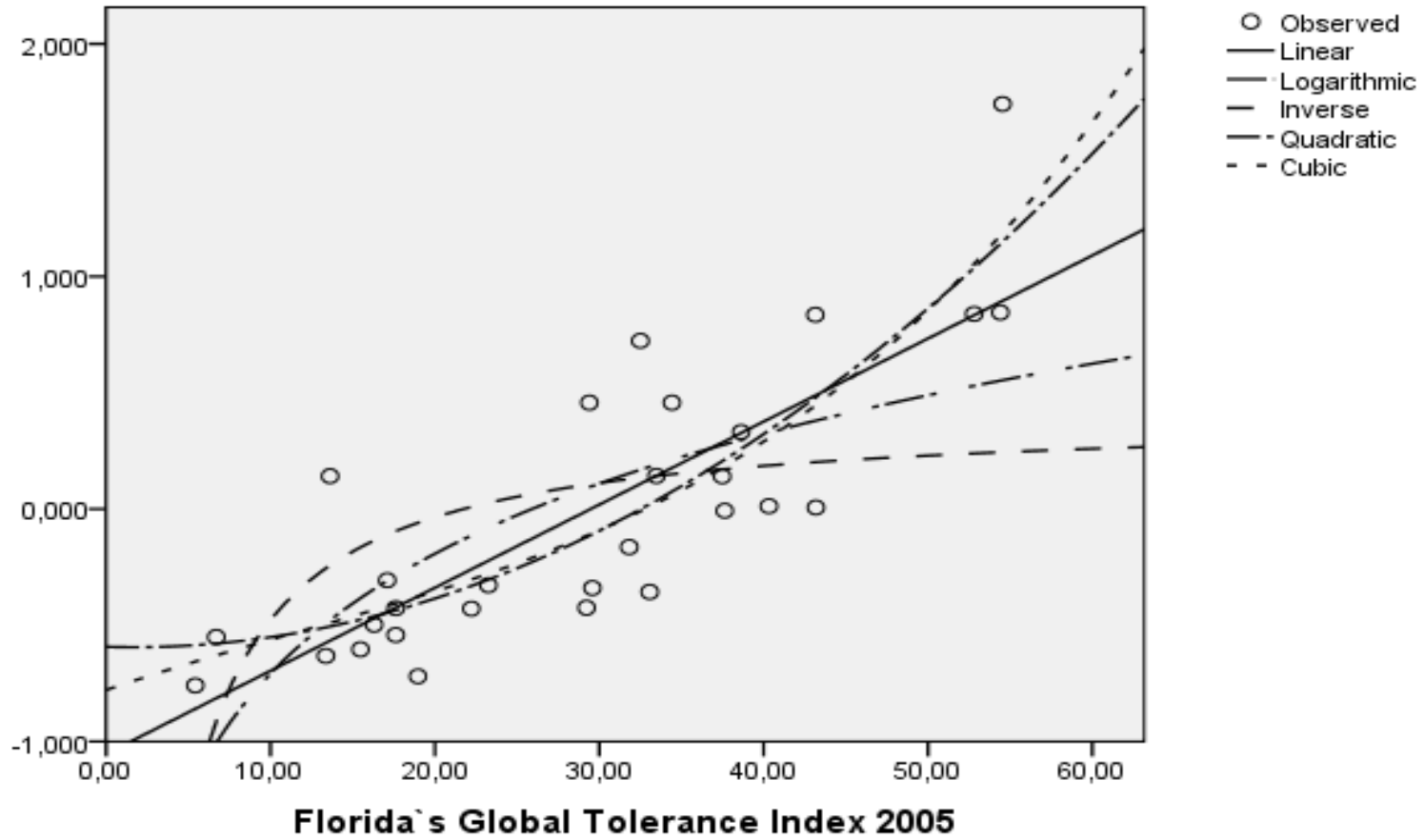
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,944	43,397	43,397	6,944	43,397	43,397	5,000	31,252	31,252
2	3,945	24,654	68,051	3,945	24,654	68,051	4,087	25,545	56,797
3	2,652	16,573	84,623	2,652	16,573	84,623	3,046	19,036	75,833
4	1,347	8,419	93,042	1,347	8,419	93,042	2,753	17,209	93,042
5	,506	3,163	96,206						
6	,416	2,603	98,808						
7	,191	1,192	100,000						
8	3,624E-16	2,265E-15	100,000						
9	2,640E-16	1,650E-15	100,000						
10	1,822E-16	1,139E-15	100,000						
11	5,891E-17	3,682E-16	100,000						
12	-2,807E-17	-1,754E-16	100,000						
13	-1,235E-16	-7,722E-16	100,000						
14	-1,900E-16	-1,188E-15	100,000						
15	-2,425E-16	-1,516E-15	100,000						
16	-3,738E-16	-2,336E-15	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
GDP per person employed (constant 1990 PPP $) 2006 World Bank data	,929	-,040	,003	,173
GNI per capita (constant 2008 PPP US$) - calculated 2006	,917	,137	-,252	-,261
GDP per capita (constant 2008 PPP US$) 2006 UNDP data	,912	,161	-,256	-,264
Human Development Index 2007	,748	,108	-,577	,261
The 2007 Legatum Prosperity Index	,562	,532	-,453	,356
Florida`s Global Tolerance Index 2005	-,030	-,974	,113	-,011
Social Tolerance Index Factor Scores 9 indicators wave 5	-,256	-,852	,293	-,029
Social tolerance index 9 variables mean value wave 5	,107	,849	,392	,243
Democracy Index	-,295	,750	,268	-,125
Robbery rate (per 100,000) 2008 UNDP data	,554	,707	-,144	,316
Gender Inequality Index 2008 UNDP data	-,259	-,076	,940	,174
Multidimensional Poverty Index 2008 UNDP data	-,574	,223	,743	-,253
Global Peace Index 2008	,111	-,163	,021	-,970
Life expectancy at birth (years) 2006 UNDP data	,671	,079	-,084	,691
Intentional homicide rate 2008 UNDP data	,367	,312	-,511	-,600
Happy Planet Index 2006	,351	,321	,574	,585

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

THE STRUCTURE OF SOCIAL TOLERANCE FACTORS ACCORDING TO FACTOR ANALYSIS OF GLOBAL INDICES (IN TOTAL 93% OF VARIATION IS EXPLAINED):

1 – "INCOME MATTERS" – 31% OF VARIATION
2 – "TOLERANCE AND DEMOCRACY" – 26%
3 – "SUBJECTIVE WELL-BEING" – 19%
4 – "SECURITY" – 17%

Component Correlation Matrix				
Component	1	2	3	4
1	1,000	,183	,206	-,347
2	,183	1,000	,099	-,006
3	,206	,099	1,000	,105
4	-,347	-,006	,105	1,000
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.				

Conclusion

Results:

- different computing experiments have been done, in order to design, apply and test various indices on tolerance.

- with various combinations of methods and indices, the concept of tolerance at cross-country level has been described.

- ties and correlations between different aspects of tolerance have been estimated.

- social tolerance is proved as a complex phenomenon, requiring analysis at both cross-country and inter-country levels.

- social tolerance may be investigated and explained in terms of system approach.

Prospective plans

The next step is to create an improved global social tolerance index, based on R. Florida`s approach, including more data and more countries scope, as this index allowed more explanation than others. Then, using the data from different waves of WVS, study of dynamics of tolerance at global, cross-country level. In perspective, a model of social tolerance, explaining general laws and functioning of this phenomenon, might be developed.