Measurement of General Trust:
A Cross-National Analysis[*]

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Today, it has been observed that interpersonal levels of trust are declining among many industrialized nations thus calling for greater attention and concern. Trust is an important subject for many research fields, including sociology, economics, political science, psychology, philosophy, morality, and ethics. But, trust seems often to be considered as intrinsic rather than a topic for empirical or theoretical exploration. The present study examines the measurement validity of a three-item general trust scale "Three-Item Rosenberg Scale" used frequently in general attitudinal surveys. If trust is interpreted not only as an interpersonal phenomenon but also as a social and cultural phenomenon, then how does general trust differ among nations? Specifically, this paper seeks to determine if the three questions assessing levels of interpersonal trust are scalable among nations in general, by investigating their validity when used in nations in differing world regions with differing trust levels and differing cultural backgrounds. Data were collected based on nationwide attitudinal surveys of general trust conducted among eight nations: Russia, Japan, the United States, Finland, the Czech Republic, Germany, Taiwan, and Turkey, all selected based on their overall World Values Surveys trust indices. They form four groups: high trust: Finland; relatively high trust: Japan, the U.S., Germany, and Taiwan; middle trust: Russia and the Czech Republic; and low trust: Turkey. Crosstabulations and correspondence analyses were conducted. Results indicated that the Three-Item Likert trust scale can be used for all eight nations, regardless of differences in their languages, cultural backgrounds and trust levels, and that the first dimension   i.e., the X-axis , based on correspondence analysis, creates a trust scale for the eight nations.

Today, it has been observed that trust levels are declining among many industrialized nations   e.g., Putnam, 2000; Dalton 2004; Hardin 2006 , thus calling for greater attention and concern. Trust is an important subject for many different research fields, such as sociology, economics, political science, psychology, philosophy, morality, and ethics. But, trust seems often to have been considered as intrinsic, rather than a topic for empirical or theoretical exploration. This intrinsic quality prevailed, not only from pre-modern society but also in the transition from pre-

modern to modern and globalizing societies.

There is a contextual element to trust. What is the context in which trust must be expressed? This gets at the importance of the underlying social structural context which plays an essential role in interpersonal and social relationships. And it must not be overlooked that quite often an important part of the underlying social structural context is the accompanying cultural context. How do nations and cultures differ regarding trust, especially in an era of ever increasing contact among nations and cultures?

There have been many general attitudinal surveys conducted throughout the world which include one-, two- or three-item questions regarding the assessment of levels of interpersonal trust. These questions were first formulated by Rosenberg 1956 and then developed by the Institute for Social Research at the University of Michigan and are known as the "Three-Item Rosenberg Scale" or "Misanthropy Measures." They are "widely viewed as being essential for both individual and societal well-being" Wilkes 2011:1596 and focus intensively on trust from various perspectives. Paxton 1999:105 also points out that "Although only one of the variables uses the word trust, all three reflect the trustworthiness or integrity of others." This measurement of trust, which is regarded as a "quite good measure of the underlying theoretical concept" Bjornskov 2006: 3 , has, however, been criticized and its behavioral relevance called into question Hardin 2006; Naef & Schupp 2009 . Also, several studies have stated that the General Social Survey s one-item question "In general, do you think that most people can be trusted, or that you can t be too careful in dealing with people?" which has a long history of use,[1] is a rather imprecise, ambiguous, and possibly invalid or unreliable measure of trust cf. Reeskens & Hooghe 2008; Glaeser et al. 2000; Miller & Mitamura 2003; Yamagishi, Kikuchi & Kosugi 1999; Schwarz, 1999 . Reeskens & Hooghe 2008:530 claim that

> ...one cannot recommend measuring generalized trust with just a single item, as is often done in comparative research.... we can be quite confident that a single item does not provide us with a reliable measurement of generalized trust. The two-item solution included in the General Social Survey[2] solves this problem to some extent, but self-evidently a three-item scale allows for a more precise measurement.

In analyzing European Social Survey data, Reeskens and Hooghe 2008:515 stated that a three-item scale on general trust can be considered as a reliable and cross-culturally valid concept. According to Reeskens and Hooghe 2008:519 "It is not advisable to measure basic

attitudes with just one item." And Smith 1988:22 has stated: "What is needed is at least three indicators of the same construct.... we feel that three carefully translated questions, pretested as reliable in each individual language..., should allow us to avoid most of the larger problems, most of the time...."

The present study examines the validity of measurement of a three-item general trust scale i.e., the "Three-Item Rosenberg Scale" which has been used quite often, mainly in general attitudinal surveys in the West.[3] If trust is interpreted not only as an interpersonal phenomenon but also as a social and cultural phenomenon, then how does general trust differ among nations? Specifically, we seek to determine if the three questions assessing levels of interpersonal trust are scalable among nations in general, by investigating their validity when used in nations in differing world regions with differing trust levels, differing languages and differing cultural backgrounds.

The data for the present study were collected based on nationwide attitudinal surveys of general trust conducted among eight nations: Russia, Japan, the United States, Finland, the Czech Republic, Germany, Taiwan, and Turkey. These eight nations were selected based on their overall trust indices in the World Values Surveys conducted between 1995 and 2009. They form four groups: high trust: Finland; relatively high trust: Japan, the U.S., Germany, and Taiwan; middle trust: Russia and the Czech Republic; and low trust: Turkey.

The surveys were carried out among persons 20 years of age[4] and older between November 2008 and May 2012. The surveys used personal face-to-face interviews of groups of subjects obtained utilizing the prevailing sampling methods for each country see Appendix for details on the surveys .

Did individuals in these eight nations interpret the questions asked in the same way? This of course is a crucial issue. The present study, using pretest samples in each nation, utilized the back translation technique to confirm nearly equivalent interpretation of the questions in all eight nations.

Research Findings

For the present study, crosstabulations and correspondence analyses were conducted. The three questions used for a three-item general trust scale examined by the present study appear in Table 1. Tables 2 through 4 show the crosstabulations for Questions 1 through 3, respectively, for all eight nations.

Correspondence analysis, which was utilized next, is a factor analytic method developed independently by Guttman 1950 , Hayashi 1956 and Benzecri et al. 1973 . This method is

Table 1 Survey Questions Used for the Analysis

Question 1.Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

  1. Try to be helpful
  2. Look out for themselves
  3. Other
  4. Don t know

Question 2. Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

  1. Take advantage
  2. Try to be fair
  3. Other
  4. Don t know

Question 3. Generally speaking, would you say that most people can be trusted or that you can t be too careful in dealing with people?

  1. Most people can be trusted
  2. Can t be too careful
  3. Other
  4. Don t know

a variation of principal component analysis, based on qualitative data expressed through categorical responses. It is considered to be a powerful technique for analyzing large and complex data sets. According to Blasius and Thiessen 2009:151 , "The aim of this method is to describe the data with minimal constraints on the form of that structure. This follows the philosophy of its principal investigator, Jean-Paul Benzecri, who states that the model should follow the data, not the inverse   cf. Greenacre and Blasius 2006: 6 ." Also, the aim of this method is to represent and visualize response categories of questions as points in Euclidian space   in general, two-dimensional space with respect to a horizontal axis   called the X-axis   and vertical axis   called the Y-axis   is sufficient, the most convenient and the easiest to understand   based on information showing the similarity among the categories, where this similarity indicates the degree of mutually correlated relations between two response categories. As a result, a configuration of relative locations of points   i.e., response categories   is obtained, with the remoteness or proximity of the points representing the degree of dissimilarity or similarity. Interpretation of categories and questions is thereby facilitated, simplifying understanding of their meaning. In other words, by using this method[5] we can make the interpretation of multiple crosstabulations easier by visually representing the response structures as attitudinal structures in Euclidian space, thereby facilitating holistic understanding of the data   cf. Hayashi, Suzuki & Sasaki 1992: 8 ; Greenacre & Blasius 1994, 2006 . For performing correspondence analysis, although we use the collected sample as is for a single nation, it is necessary to have roughly even

Table 2 Crosstabulations of Question 1 by Eight Nations

Q 1 : Would you say that most of the time people try to be helpful or that they are mostly just looking out for themselves?

Nation		Try to be helpful	Look out for themselves	Other	Don't know	Total
U.S.	Count	584	389	16	19	1,008
		57.9	38.6	1.6	1.9	100.0
Russia	Count	370	1,142	8	80	1,600
		23.1	71.4	0.5	5	100.0
Finland	Count	225	616	0	40	881
		25.5	69.9	0	4.5	100.0
Germany	Count	447	499	17	44	1,007
		44.4	49.6	1.7	4.4	100.0
Czech Rep	Count	189	726	42	24	981
		19.3	74.0	4.3	2.4	100.0
Turkey	count	134	836	9	28	1,007
		13.3	83.0	0.9	2.8	100.0
Japan	Count	272	566	19	67	924
		29.4	61.3	2.1	7.3	100.0
Taiwan ROC	count	476	475	0	54	1,005
		47.4	47.3	0%	5.4	100.0
Total	Count	2,697	5,249	111	356	8,413
		32.1	62.4	1.3	4.2	100.0

Table 3 Crosstabulations of Question 2 by Eight Nations

Q 2: Do you think that people would try to take advantage of you if they got the chance, or would they try to be fair?

Nation		Take advantage	Try to be fair	Other	Don't know	Total
U.S.	Count	407	561	10	30	1,008
		40.4	55.7	1.0	3.0	100.0
Russia	Count	894	496	10	200	1,600
		55.9	31.0	0.6	12.5	100.0
Finland	Count	262	573	1	45	881
		29.7	65.0	0.1	5.1	100.0
Germany	Count	420	480	5	102	1,007
		41.7	47.7	0.5	10.1	100.0
Czech Rep	Count	509	275	44	153	981
		51.9	28.0	4.5	15.6	100.0
Turkey	count	831	115	8	53	1,007
		82.5	11.4	0.8	5.3	100.0
Japan	Count	284	549	17	74	924
		30.7	59.4	1.8	8.0	100.0
Taiwan ROC	count	292	512	0	201	1,005
		29.1	50.9	0	20.0	100.0
Total	Count	3,899	3,561	95	858	8,413
		46.3	42.3	1.1	10.2	100.0

Table 4 Crosstabulations of Question 3 by Eight Nations

Q 3: Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Nation		Most people can be trusted	Can't be too careful	Other	Don't know	Total
U.S.	Count	453	527	6	22	1,008
		44.9	52.3	0.6	2.2	100.0
Russia	Count	450	1,068	12	70	1,600
		28.1	66.8	0.8	4.4	100.0
Finland	Count	471	390	3	17	881
		53.5	44.3	0.3	1.9	100.0
Germany	Count	355	580	11	61	1,007
		35.3	57.6	1.1	6.1	100.0
Czech Rep	Count	219	702	23	37	981
		22.3	71.6	2.3	3.8	100.0
Turkey	count	100	880	3	24	1,007
		9.9	87.4	0.3	2.4	100.0
Japan	Count	249	630	8	37	924
		26.9	68.2	0.9	4.0	100.0
Taiwan ROC	count	210	766	0	29	1,005
		20.9	76.2	0	2.9	100.0
Total	Count	2,507	5,543	66	297	8,413
		29.8	65.9	0.8	3.5	100.0

sample sizes when using all the combined data from the nations being analyzed. Consequently the sample size for Russia was weighted at 65 , making that sample 1,014 for the present analysis.

Also, the "Don t know" and "Other" responses are excluded from correspondence analysis in the present study because the three questions were constructed for the purpose of determining the relationship between the positive and negative aspects of trust among the eight nations.

To determine the possibility of creating a Likert scale for general trust applicable to all eight nations using the three questions, it is worthwhile to first examine the crosstabulations of response patterns to the three questions for each nation. As the response categories for the three questions are binary choices excluding "Other" and "Don t know" , we assign a positive value 1 for Question 1 s first response category i.e., most of the time people try to be helpful , and a negative value 2 for the second category i.e., they are mostly just looking out for themselves . By the same token, we assign a positive value 1 for Question 2 s first response category i.e., they would try to be fair , and a negative value 2 for the second response category i.e., most people would try to take advantage of you if they got the chance , and we assign a positive value 1 for Question 3 s first response category i.e., most people can be trusted and a negative value 2 for the second response category i.e., you can t be too careful in dealing with people . Based on these assigned responses of 1 and 2, we can create eight combinations of responses for the three questions. Their distribution is shown in Table 5. From the table we can see that the combination "121" i.e., most of the people try to be helpful, try to take advantage of you if they got the chance, and most people can be trusted occurs at less than 5 for all eight nations. Also, "221" occurs at less than 9 for all eight nations. Clearly, the percentages of these two combinations are quite low.

From Table 5 we seek combinations of response patterns which can compose a linear scale for the three questions. As a result, we find two cases shown in Table 6 which compose the linear scalability. The first case Case A shows that the percentages of response combinations for the three questions for all nations, except Finland, exceed 70 percent. The second case B shows all percentages over 70 percent, except Taiwan. We can see that Question 2 is playing quite an important role for the general trust scale. If the second response, which is a negative trust value for Question 2, is chosen, two other responses for Questions 1 and 3 are also negative values of general trust.

The correspondence analysis was conducted for the eight combinations with all eight nations. Figure 1 depicts the actual numeric positions of the eight nations and those eight combinations

Table 5 Eight Combinations of Responses for Three Questions

| Country | Eight combinations of responses for three questions | | | | | | | | Total |
	111	112	121	122	211	212	221	222	
U.S.	344	110	37	76	27	57	34	250	935
	36.8	11.8	4.0	8.1	2.9	6.1	3.6	26.7	100.0
Japan	82	104	26	41	81	224	33	170	761
	10.8	13.7	3.4	5.4	10.6	29.4	4.3	22.3	100.0
Taiwan R.O.C.	103	173	14	77	56	161	7	180	771
	13.4	22.4	1.8	10.0	7.3	20.9	0.9	23.3	100.0
Germany	228	87	39	40	35	96	19	292	836
	27.3	10.4	4.7	4.8	4.2	11.5	2.3	34.9	100.0
Russia	89	44	35	39	56	108	76	412	859
	10.4	5.1	4.1	4.5	6.5	12.6	8.8	48.0	100.0
Turkey	39	18	13	48	9	43	26	720	916
	4.3	2.0	1.4	5.2	1.0	4.7	2.8	78.6	100.0
Czech	91	24	19	25	56	91	19	424	749
	12.1	3.2	2.5	3.3	7.5	12.1	2.5	56.6	100.0
Finland	158	36	13	13	201	156	69	156	802
	19.7	4.5	1.6	1.6	25.1	19.5	8.6	19.5	100.0

Table 6 Likert linear Scalability for General Trust Based on Responses to Three Questions

Case A

Q 2   Q 1   Q 3

	U.S.	Japan	Taiwan	Germany	Russia	Turkey	Czech	Finland
111	36.8	10.8	13.4	27.3	10.4	4.3	12.1	19.7
112	11.8	13.7	22.4	10.4	5.1	2.0	3.2	4.5
212	6.1	29.4	20.9	11.5	12.6	4.7	12.1	19.5
222	26.7	22.3	23.3	34.9	48.0	78.6	56.6	19.5
Total	81.4	76.2	80.0	84.1	76.1	89.6	84.0	<u>63.2</u>

Case B

Q 2   Q 3   Q 1

	U.S.	Japan	Taiwan	Germany	Russia	Turkey	Czech	Finland
111	36.8	10.8	13.4	27.3	10.4	4.3	12.1	19.7
211	2.9	10.6	7.3	4.2	6.5	1.0	7.5	25.1
212	6.1	29.4	20.9	11.5	12.6	4.7	12.1	19.5
222	26.7	22.3	23.3	34.9	48.0	78.6	56.6	19.5
	72.5	73.1	<u>64.9</u>	77.9	77.5	88.6	88.3	83.8

Eigenvalue for the first principal axis=1.464
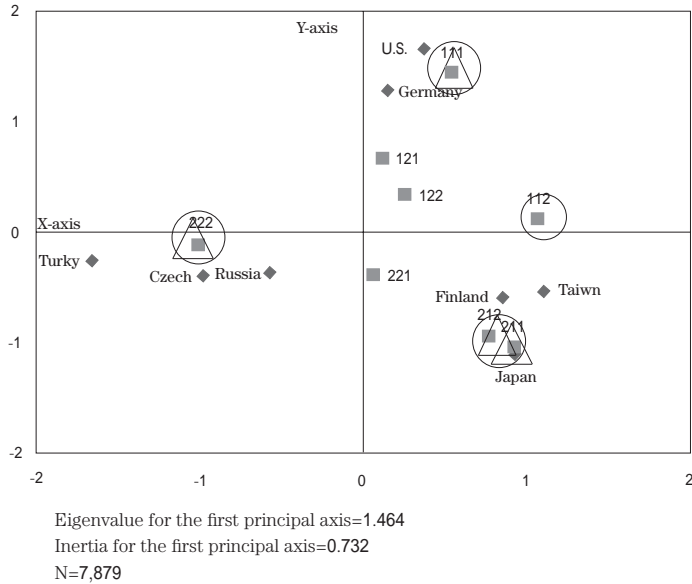Inertia for the first principal axis=0.732
N=7,879

Figure 1 Correspondence analysis of eight nations and eight combinations of responses
for three questions

of responses for the three questions.

In Figure 1, the circles represent Case A and the triangles represent Case B. The results indicate that in Figure 1, the positive right half of the X-axis is for high trust. The United States and Germany create a cluster on the upper right and are located near the response pattern of 111, the highest trust cluster. The negative left half of the X-axis is for low trust, and Turkey, the Czech Republic and Russia create a cluster on the left and are located near the response pattern of 222, the lowest trust. Japan and Finland are located near the response patterns of 211 and 212. Taiwan is located in the middle between 112 and 212. Finland, Japan and Taiwan create a cluster. If we compare this finding with the two cases A and B in Table 6, we can see that the circles overlap with Case A and the triangles overlap with Case B. Also, we can see that the response combinations of 111, 212, and 222 overlap with both the circles and triangles, that 211 does not overlap with and is set off from Case A, and that 112 does not overlap with and is set off from Case B.

Next, by conducting correspondence analysis for the three questions for each nation, we can investigate whether we can construct a Likert linear scale based on the values of the first principal axis, which is displayed horizontally the X-axis . For this purpose, the configurations of the response patterns for the three questions and the eigenvalue and the inertia for the first

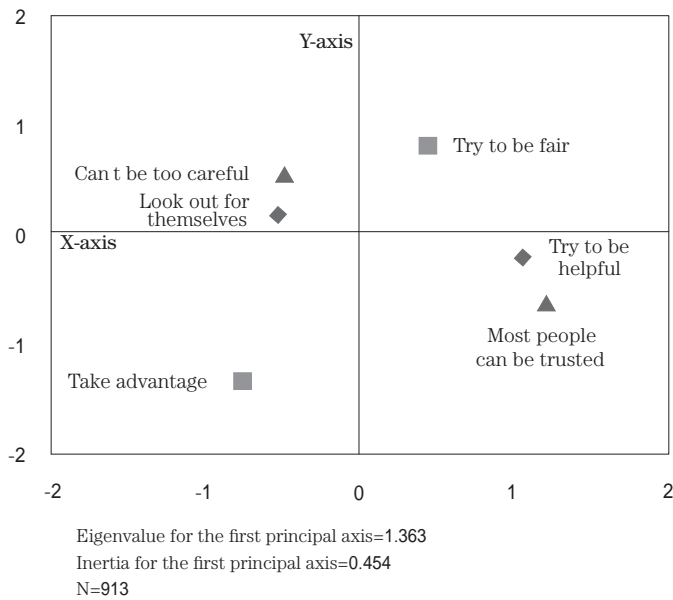principal axis are shown in Figures 2-1 through 2-8.
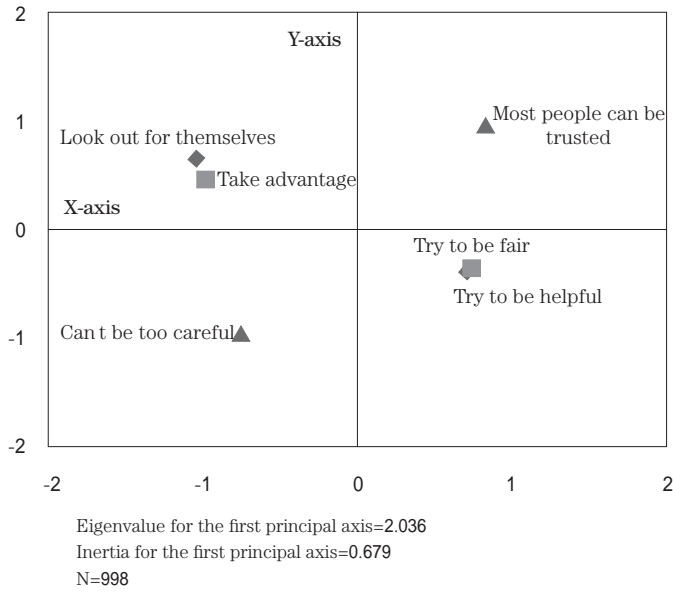
Q6 Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7 Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

Q8 Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=2.036
Inertia for the first principal axis=0.679
N=998

Figure 2-1 Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: U.S.A.

Q6 Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7 Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

Q8 Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=1.363
Inertia for the first principal axis=0.454
N=913

Figure 2-2 Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Japan

Q6Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7.Do you think that most people would try to take advantage of you if they got the chance,or would they try to be fair?

Q8Generally speaking,would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=1.516
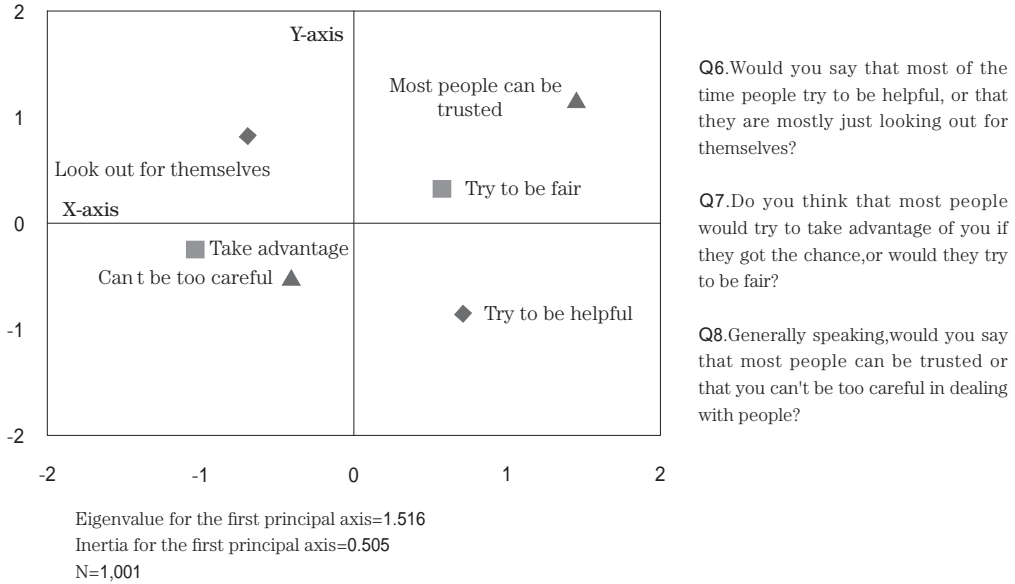Inertia for the first principal axis=0.505
N=1,001

Figure 2-3 Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Taiwan

Q6Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7.Do you think that most people would try to take advantage of you if they got the chance,or would they try to be fair?

Q8Generally speaking,would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=2.037
Inertia for the first principal axis=0.679
N=985

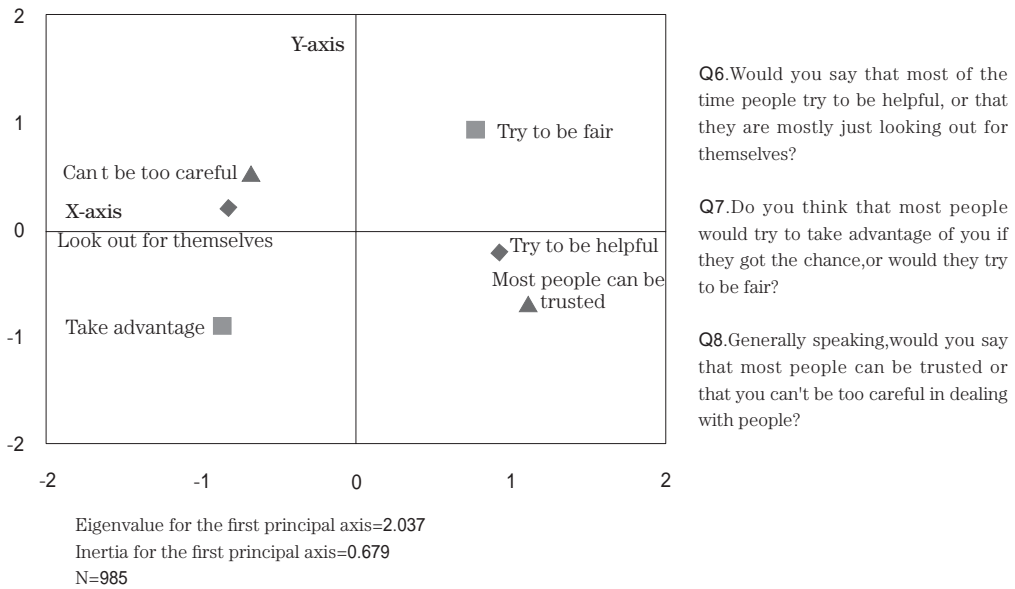**Figure 2-4** Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Germany

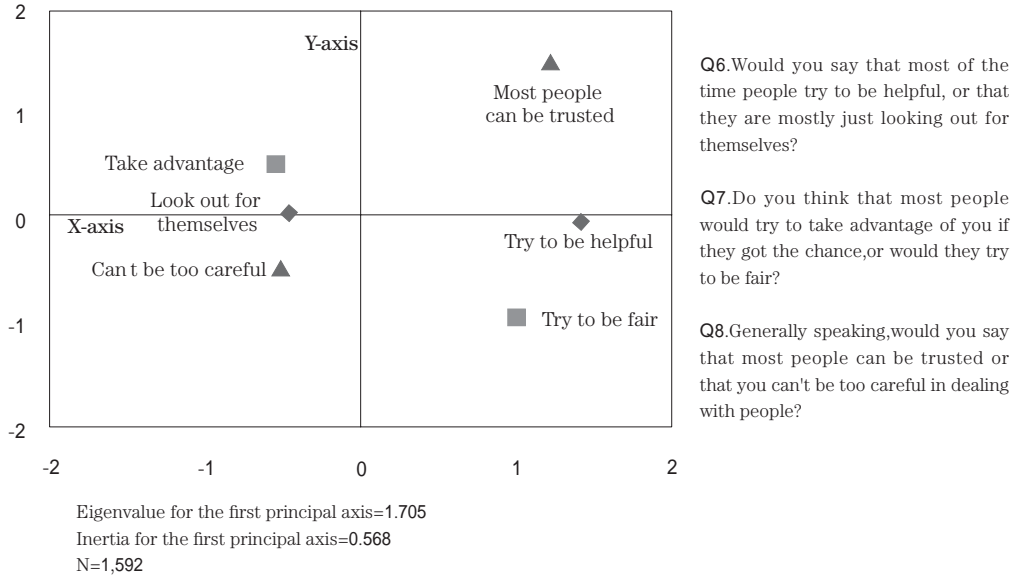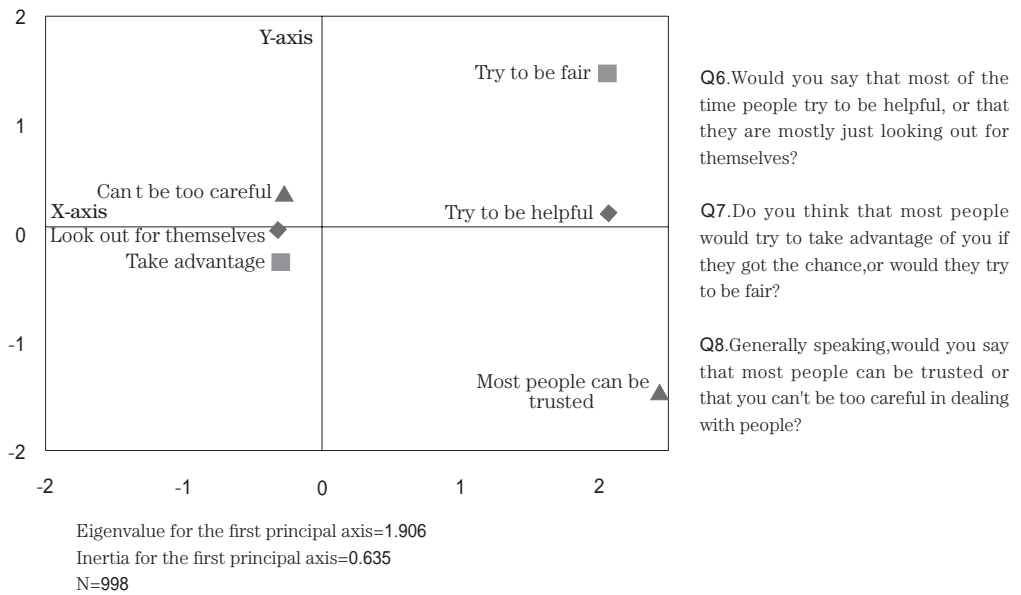Eigenvalue for the first principal axis=1.705
Inertia for the first principal axis=0.568
N=1,592

Q6 Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7 Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

Q8 Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Figure 2-5   Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Russia
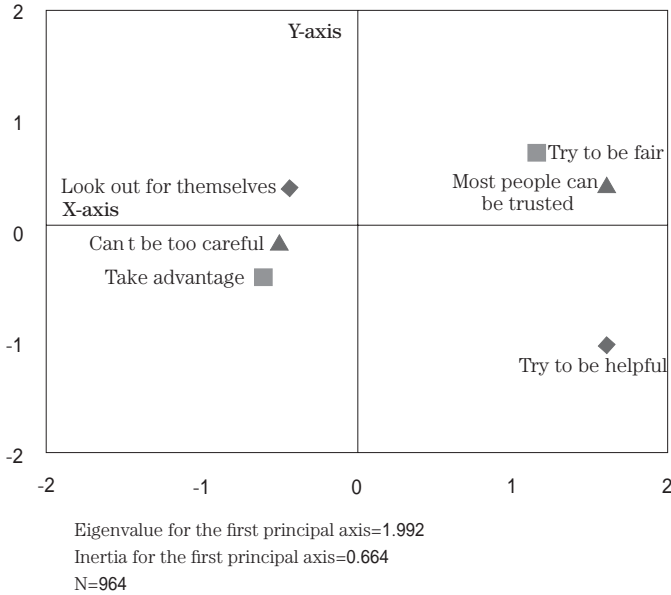
Eigenvalue for the first principal axis=1.906
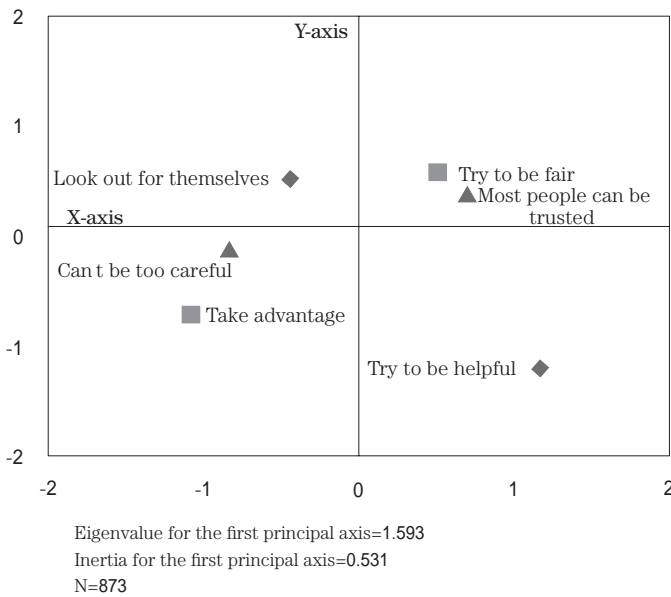Inertia for the first principal axis=0.635
N=998

Q6 Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7 Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

Q8 Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Figure 2-6   Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Turkey

Y-axis

Try to be fair
Most people can be trusted

Look out for themselves
X-axis

Can t be too careful
Take advantage

Try to be helpful

Q6Would you say that most of the time people try to be helpful, or that they are mostly just looking out of themselves?

Q7.Do you thing that most people would try to take advantage of you if they got the chance,or would they try to be fair?

Q8Generally speaking,would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=1.992
Inertia for the first principal axis=0.664
N=964

Figure 2·7 Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: The Czech Republic

Y-axis

Try to be fair
Most people can be trusted

Look out for themselves

X-axis

Can t be too careful

Take advantage

Try to be helpful

Q6Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

Q7.Do you think that most people would try to take advantage of you if they got the chance,or would they try to be fair?

Q8Generally speaking,would you say that most people can be trusted or that you can't be too careful in dealing with people?

Eigenvalue for the first principal axis=1.593
Inertia for the first principal axis=0.531
N=873

Figure 2·8 Configurations of response patterns of three questions and the eigenvalue and the inertia for the first principal axis: Finland

In these figures we can see that for all eight nations, responses with positive values and those with negative values are partitioned and gathered in the first principal axis. As the inertia of the first dimension is more than 0.5 for seven nations except Japan , we can display the trust and distrust scale in the first dimension.

Therefore, three questions can be used as a Three-Item Likert trust scale among all eight nations. From these findings we can determine that only the X-axis creates a trust scale for eight nations, supporting the previously mentioned claim of Reeskens and Hooghe 2008:515 that a "... three items scale on general trust can be considered as a reliable and cross-culturally valid concept." Also, these findings support the previously mentioned claim of Smith 1988:22 that in cross-national research, "What is needed is at least three indicators of the same construct."

Despite the limited number of nations in this study, the conclusion here is that we can use the Likert general trust scale for all eight nations and that using three questions yields much clearer characteristics of the response patterns for general trust, regardless of differences in cultural backgrounds, languages, world regions and national trust levels.

Notes

1)   According to Ermisch et al.   2009:750) "this question i.e., generally speaking, would you say that most people can be trusted, or that you can t be too careful in dealing with people? has been used to measure trust in around 500 references that analyze the economic effects of trust according to Sapienza et al.   2013) ."

2)   In the World Values Survey, generalized trust is measured with just one item. According to Tom Smith at NORC personal communication, August 2011) , "the General Social Survey has used three items trust, fairness, and helpfulness regularly since 1972 and plans to continue doing so for the foreseeable future." The European Social Survey has three generalized trust items.

3)   In Japan, the "Three-Item Rosenberg Scale" has been used repeatedly every five years in the "National Character Surveys" since 1978 see Hayashi, Suzuki & Sasaki 1992) .

4)   Among the eight nations surveyed, because the age of adulthood including the right to vote is 20 in Japan and Taiwan, rather than 18 in the other six nations, age 20 was selected for purposes of this study s comparative analysis.

5)   In sociology, multiple correspondence analysis has figured prominently in the work of Pierre Bourdieu 1999, 2001) . According to him. "I use Correspondence Analysis very much, because I think

that it is essentially a relational procedure whose philosophy fully expresses what in my view constitutes social reality. It is a procedure that thinks in relations, as I try to do it with the concept of field.　Preface of the German edition of *Le Métier de Sociologue*, 1991)"　Le Roux & Rouanet, 2010:5).

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Appendix

For the nationwide surveys conducted for the present study, specific details for each survey are described below. With regard to sampling methods, research institutions and commercial polling organizations which carry out attitudinal surveys have been pursuing the most appropriate survey methods because of budget constraints, difficulty with field surveys, and so on. The World Value Survey WVS; http://www.theworldvaluessurvey.org/wvs/ , which data is widely used, permits the quota sampling method with some strict controls because the full probability sampling method is very expensive. For the present study, the quota sampling method with these strict controls and the random sampling method were used because of budget constraints and to facilitate comparison and contrast with other trust related survey results in each nation. For example, Japan and Germany have for quite some time used the random sampling method for many of their domestic, cross-national, and longitudinal surveys.

Czech Republic

        September 2009

        Sampling method and sampling points: Quota sampling for 184 sampling points

        Sample size: 981

        Survey institute: Public Opinion Research Centre, Institute of Sociology, Academy of Sciences of
                the Czech Republic, Prague. The Czech Republic

Germany

        April-May 2009

        Sampling method and sampling points: Random sampling based on the ADM-Master Sample the
                standard in Germany for professional scientific studies for 142 sampling points 91 in West
                Germany and 51 in East Germany .

        Sample size: 1,007

Response rate: 72.3

Survey institute: Marplan Research Institute, Frankfort, Germany

<u>Japan</u>

October 2008

Sampling method and sampling points: Two-stage stratified random sampling for 130 sampling points

Sample size: 924

Response rate: 46.2

Survey institute: Shin Joho Center, Tokyo. Japan

<u>Russia</u>

February 2009

Sampling method and sampling points: Quota sampling for 140 sampling points

Sample size: 1,600

Survey Institute: VCIOM, Moscow, Russia

<u>Taiwan</u>

October-November 2009

Sampling method and sampling points: Quota Sampling for 138 sampling points

Sample size: 981

Survey institute: Gallup Market Research Corporation, Taipei, Taiwan

<u>Turkey</u>

January-February 2010

Sampling method and sampling points: Quota sampling for 86 sampling points

Sample size: 1,007

Survey institute: Ipsos KMG, Istanbul. Turkey

<u>United States</u>

November-December 2008

Sampling method and sampling points: Quota sampling for 100 sampling points.

Sample size: 1,008

Survey institute: Kanes, Parsons &Associates, New York, U.S.A.

<u>Finland</u>

<u>May 2012</u>

Sampling method and sampling points: Quota sampling for 87 sampling points.

Sample size: 881

Survey institute: Taloustutkimus Oy, Helsinki, Finland