

Introducing a Data Manipulation Application for Estimating a Nation's Resources to Manage Cross Cultural Distances

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The general purpose of my current research project is to quantify a factor of four elements that seem to affect cultural distances either narrowing or widening gaps between nations in international settings. The A.I.K.A. Factor consists of the following elements: Attitude, Interest, Knowledge and Adaptation Ability.

A more specific aim of this paper is to report on my study in a Nordic setting. A bidirectional survey (total n = 265) was carried out. The resources two Scandinavian nations – Swedes and Finns - and the Russians have for managing their dyadic cultural distances were measured. The surveyed data was processed with The Koponen Manipulator, a two-dimensional data processing tool that converts each determinant to an interdependent one.

Treating the factor with the manipulator results in a method that I tend to call The Dynamic Method.

Keywords: cultural distances, A.I.K.A. factor, Koponen manipulator, Dynamic method

1. A Traditional, static, model ...

... for determining Cultural Differences is the one of Geert Hofstede. This chapter illustrates this model with Scandinavian – Russian data. The Scandinavian values of the model's four dimensions are calculations of Swedish and Finnish data, both obtained from the below mentioned source.

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Table 1. Culture Index Scores of Hofstede's Dimensions

	Power distance	Uncertainty avoidance	Individualism vs Collectivism	Masculinity vs Femininity
Scandinavia	32	44	67	16
Russia	93	95	39	36

Source: Hofstede, 2001: 500, 502. 'Scandinavia' calculated by the author of this paper.

To my understanding, the problem with any traditional Cultural Properties Theory is that they are extremely static of nature. Any such theory illustrates each and one culture in form of a set of fixed dimensions. The quantified dimensions are the same regardless of the viewing point. It can be argued that e.g. Scandinavia be very different from a western than from an eastern viewing point. This is because the viewers are different. Also, it is likely that Scandinavians send different images of themselves to the westerners and to the easterners.

The outcome of the theoretical study is: there is a need for a new – more dynamic - approach. Psychic distances between cultures are both dyadic and unique. With these statements I mean that the distances between any cultures A and B are only between these A and B (a dyad), and that distances A -> B, and B -> A may be very different (unique).

The above became clear to me by 2005. A previous paper of mine reports on the study done in the triad of Sweden, Finland and Russia (Koponen - Tsyvkunov, 2005).

2. The Dynamic Method ...

... , on the other hand, consists **of a factor of four elements (determinants), and of a data manipulator**. Together they enable the quantification of cultural distances and resources people have for covering them. The elements of The A.I.K.A. Factor are: Attitude, Interest, Knowledge and Adaptation Ability. The manipulator is a two-dimensional data processing tool that converts each determinant to an interdependent one.

The method makes measuring self attributed psychic distances mathematically possible. The method integrates numeric, and graphic capabilities, making analyzing a problem easy. The two-dimensional manipulator accepts either surveyed or set weights as the Y-dimensions of each XY-projection. Here, I have used surveyed weights. In total, my study is based on 265 filled in questionnaires. The average value of the factor's Y-dimensions is 6.793 (max: 10). It can thus be argued that the relevancy of the factor's elements be 67.93%, on average.

In literature, I can see authors using same concepts as I am doing myself. Someone Edgar Wegman supports my effort by having stated: "Clearly, projection-

based techniques are highly successful and lead to important insights concerning data” (1990). Another, outsider’s, impact can be seen in the following: “We want to have easy, flexible, availability of basic or higher level operations, with convenient data manipulation, ... We want to be able easily to modify data, ... and to do all this and more ... adapted to statistical usage” (Chambers 1999). Thank you, both of you!

The scientific assumption on which my theory is based is that the dynamic conditions of The A.I.K.A. Factor indicate people’s cultural capabilities.

3. The Empirical Findings ...

... in short. The psychic distances within the Nordic Dyad were measured being, firstly: from Scandinavians to Russians 27.08 units, and secondly: from Russians to Scandinavians 23.30 units. Units are ‘points’ or whatever measures – agreed with the informants – on a scale from zero to 40.

The resources the informants have to cover the distances, are their estimations indicated as the values of The A.I.K.A. Factor. Each determinant has been measured on a scale from zero to 10. The maximum total of resources would, thus, be 40.

Table 2. The Scandinavians’ Resources to cover the distance (27.08) to the Russians; n of X = 143, n of Y = 268

	Attitude	Interest	Knowledge	Adaptation ability	Row sums i.e. totals
X - value	4.83	4.84	4.14	4.39	18,20
Y- weight	7.68	6.74	6.41	6.34	
XY - projections	37.11	32.60	26.54	27.85	124.09
Excess	26.47	26.47	26.47	26.47	
Z = X including Y	10.64	6.12	0.06	1.38	18.20

Source: own creation

How to read the above table? The Scandinavians’ distance to the Russians was measured by a Scandinavian sample population, and found being 27.08 units from the possible maximum of 40 units. Their resources total in 18.20 units i.e. are approximately 67 % from the maximum of 40 units.

The original X-values do not indicate a specific – more than average – problem. After the data manipulation, however, the Scandinavians low **knowledge** on the Russians’ culture, seems to be their most serious problem, in this context. Also, their **adaptation ability** is a problem to be dealt with. The higher readings of **attitude** and **interest** form a good basis for developing the weaker elements of the

factor. At present, the Scandinavians, however, experience being fairly distant from the Russians.

Table 3. The Russians' Resources to cover the distance (23.30) to the Scandinavians; n of X = 125, n of Y = 268

	Attitude	Interest	Knowledge	Adaptation ability	Row sums i.e. totals
X - value	7.51	5.00	3.80	4.97	21.28
Y- weight	7.68	6.74	6.41	6.34	
XY - projections	57.70	33.68	24.36	31.53	147.26
Excess	31.50	31.50	31.50	31.50	
Z = X including Y	26.20	2.18	-7.14	0.03	21.28

Source: own creation

How to read the above table? The Russians' distance to the Scandinavians was measured by a Russian sample population, and found being 23.30 units from the possible maximum of 40 units. Their resources total in 21.28 units i.e. are approximately 91 % from the maximum of 40 units.

The weighted value of the Russians' positive **attitude** towards the Scandinavians is highly emphasized. This, fairly well, 'carries them over' the more problematic elements of their resources. Please, pay attention to **knowledge**. In this context, it has got a negative value, indicating a severe problem! All in all, the Russians feel them being fairly close to the Scandinavians.

4. A final conclusion of the study

The study shows that cultural distances are dyadic and unique. The Dynamic Method makes it possible to measure the distances between cultures. More than that, It also enables measuring the resources cultures experience having for covering the distances.

The Scandinavian and Russian surveys resulted in data that supports my hypothesis that a cultural distance A->B can be different from the cultural distance B->A. In practice, the Scandinavians to Russians -distance is longer than the Russians to Scandinavians -distance.

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