

Hungary on the world values map¹

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ABSTRACT: In my study, I locate close to 50 societies of the world along the value axis defined by Inglehart. In the first place, I shall investigate the position of Hungary on the “value map” drawn by the values axis. *Closed* (based on values of self-expression) and *rational* (based on *secular-rational values*) way of thinking is typical of Hungary. At the same time, this combination of values places our country in the vicinity of the countries with *orthodox* culture, away from the core of *Western* culture, typical of Hungary based on history and cultural heritage. As a consequence, on the investigated values map, Hungary is far away, in spatial terms, not only from its geographical neighbours, but also from the countries with similar level of economic development. My paper is intended to be a descriptive/fact-finding analysis, even if in the second part of my essay I use explanations of historical nature. In my analysis I explicitly do not deal with national characters² – which is rather the subject of popular wisdom than of scholarly analysis –, and I also do not intend to analyse the results from the narrative of historical destiny or fate, even if in certain cases I believe that the identified phenomena can be traced back to historical reasons.

KEYWORDS: cross country comparison, human values, cultural differences

Inglehart’s values theory – interpretive and critical aspects

When examining the changes in the way of thinking (values) of people, Inglehart (1997) jointly analyses economic development and cultural and political changes, and considers them foreseeable from a certain perspective (Inglehart 1997: 10). When analysing the changes, he distinguishes between two stages, which can be separated from each other. In his interpretation first the traditional – based on the respect of authority – scale of values is transformed into a modern scale of values, then the modern scale of values is transformed into a post-modern scale of values. The first process might be called *modernisation*, where the trend of change goes from community religious values towards rational, performance-motivated

1 This essay is the English translation of my paper published originally in the periodical Társadalmi Riport, 2010 [Social Report, 2010] edited by Tamás Kolosi and István György Tóth. The analysis was prepared as part of the TARKI research programme “Social/cultural conditions of economic growth”. Besides others, the research programme included the empirical survey “The normative framework of the market economy”, and the registration in Hungarian of the international series of surveys “World Value Survey (WVS)”. The most important findings of the research are downloadable in English from the website: http://www.tarki.hu/en/research/european_social_report/european_social_report_2009_full.pdf (Tóth 2009a). The present study was prepared on the basis of the 4th and 5th (the newly interviewed) parts of the WVS survey, and in certain respects it is a shortened, while in other respects it is a longer version of the closing report of the research project written by me, which can be downloaded in Hungarian from the following home page address: http://www.tarki.hu/hu/research/gazdkult/gazdkult_wvs_keller.pdf.

2 One of the most interesting manifestations of this is the oil painting of the unknown, 18th-century Austrian painter entitled *Völkertafel*, which depicts 10 European nations (including the Hungarian) in symbolic form and characterises them, based on 17 aspects in text format (Stanzel 1999).

values, and it results in secularisation and bureaucratic changes in the society. The second trend is *post-modernisation*, where the rational way of thinking focusing on performance-motivation, gives place to the values of self-expression and subjective welfare, and the society simultaneously becomes more individualised, but also more tolerant, making a move towards openness and publicity (free expression of opinion) (Inglehart 1997: 72–8).

As an empirical proof of the theoretical considerations Inglehart (1997) creates two dimensions based on more than twenty variables. In the first dimension, the theoretical processes of modernisation or secularisation are "measured". This process is made operational by Inglehart via the changes taking place in the role of authority guaranteeing social legitimacy. The axis, called by him *traditional authority v. secular-rational authority*, in essence, measures the weakening of religious, family and national ties. The other axis tries to measure the social-theoretical processes – labelled as post-modernisation –, such as the development of post-materialism, the process of democratisation, and social publicity. In practice, it is executed by analysing the indicators measuring confidence and tolerance, and the size of civil society. The resulting axis is called *survival/welfare* by the author (Inglehart 1997: 388). The axes created by Inglehart (1997) can be reproduced precisely (according to the concrete questions of the World Values Survey) based on Inglehart and Baker (2000: 24), or Welzel (2006). In this case, the traditional/rational rearrangement of values is indicated by the *secular-rational values*, while the values of self-expression refer to the survival/welfare axis. In our work we followed Welzel's guidelines (2006).³

The reputation of Inglehart's values theory is, most probably, overshadowed only by the number of its critics. One of the most profound of the recently published criticisms is that of Haller's (2002). From the perspective of my work his criticism becomes important at three points, since Inglehart speaks about the values and scale of values of pre-industrial, industrial and post-industrial societies, and concludes that the values developed due to economic and technological changes⁴. Haller, on the one hand – referring to the "nature" of the data – calls the attention to the fact that in reality they are suitable only for the description of a static situation, and do not facilitate the comparison of different statuses, since statements on changes in time (flow) can not be made, or if yes, only to a limited

extent based on cross-sectional data (stock). The societies which are called pre-industrial societies by Inglehart are, in reality, completely different from the societies typical of the end of the middle ages. Consequently, according to Haller, Inglehart stepped on a shaky ground in methodological terms with his statement on the changes in time of the scale of values (Haller 2002: 142). I personally find the expression *development* questionable, since it implicitly means a move from a lower to a higher level of organisation. However, the justification of such a *qualitative* change is possible only on the basis of subjective aspects, which is why its generalisation, in scientific terms, is highly disputable (Weber 1998). *Though the study is based on the methodological apparatus also applied by Inglehart, this is not done for the purpose of value changes/developments, but in order to facilitate the identification of differences and deviations in the scale of values with reference to a cross-sectional (stock) status.*

The other important critical observation of Haller is made on Inglehart's terminology and usage of terms. According to the reflection of the author, it would be more correct to call the traditional/rational value religious/non-religious axis, since its most essential element is religiosity, or the related characteristics (Haller 2002: 144)⁵, whereas the position on the survival/welfare axis actually means a kind of conscious civic sense, because the most important elements of the axis are connected to having a voice in public affairs and social tolerance (Haller 2002: 147). *For this reason, I have changed – guided by the above-mentioned critical aspects – the names of Inglehart's value axes resulting from social evolution. I thought that the traditional/rational value axis can be better interpreted if I designate it as the opposite of the traditional-religious/secular-rational thinking, while I have distinguished the survival/welfare axis as closed thinking/open thinking.*

According to the conclusion of Inglehart those countries which are characterised by the same cultural features are located close to each other on the "map" showing the changes of values (Inglehart 1997: 335). During the analysis, the author distinguishes among six/eight cultures. The ex-Communist countries are treated as a separate culture, and within the European culture he also differentiates among Catholic, Protestant and Anglo-Saxon cultures. In my opinion this distinction is, on the one hand, too detailed, while on the other, it is not differentiated enough, since the African, the Asian and the Islamic cultures are not defined precisely. However, Haller's criticism touches upon the fact that the cultures defined by Inglehart are, in reality, a strange combination of religious, linguistic, political and regional differences (Haller 2002: 149). *For this reason, when distinguishing among the different cultures, I considered the notion of civilisation created by Huntington (2003) a more precise "tool". This is defined by the*

³ Both the axes created during the analysis are connected to the "original" axes (included in the synthetic data base containing the first four phases of the WVS) with an over 0.8 correlation coefficient. (The database can be downloaded from the WVS homepage: <http://www.worldvaluessurvey.org>). The ways of producing the values axes were somewhat different, because originally the indices were the result of principle component analysis (PCA), while in my analysis they were created as the sum of z-score values (the deviation of the given variable from the average, divided by the standard error typical of the distribution). I took into consideration the following variables for the secular-rational axis: how important religion is in your life, how proud you are of your nationality, to what extent would you consider the increase of respecting authority good, to what extent is divorce unacceptable for you, and finally, an index which shows whether educating for obedience or independence is more important as a principle in bringing up children. The high values of the axis represent secular/rational, while the low values represent traditional values. When defining the axis of self-expression values I investigated how much the respondents have confidence in people, to what extent they feel that they can influence their fate, how permissive they are with homosexuality, have they ever signed a petition, and whether they find the protection of the freedom of speech and to have a say in government decisions important. The low values of the index indicate closed, and the high values open thinking.

⁴ Inglehart at this point undoubtedly goes back to Marxist traditions, but we do not deal with its grounding or criticism in this study.

⁵ Otherwise, the author propounds that the dispersion of the countries along this axis (also) shows the level of development of the welfare system in a country. Namely, in those countries where there is no well-developed social network, the Church takes over, in a certain sense, the ministrations of these areas, and these countries – independent from their level of economic development – achieve high scores on this axis. A typical example of it is the United States. Otherwise, my own analyses – not published in this study separately – confirm this hypothesis with respect to the European countries.

author in cultural sense as the sum of values, norms, religious rules, and the similar conceptions of the universe.⁶

Finally – and from the perspective of my study, this is the third important observation in Haller's criticism (Haller 2002: 150) – it is important to note that I have performed the analysis only at macro level. When interpreting the results – in order to avoid the trap of ecological blunder – this fact shall always be kept in mind. For this reason, the findings published in my study can not be adapted to the individual level.

Real maps and values maps

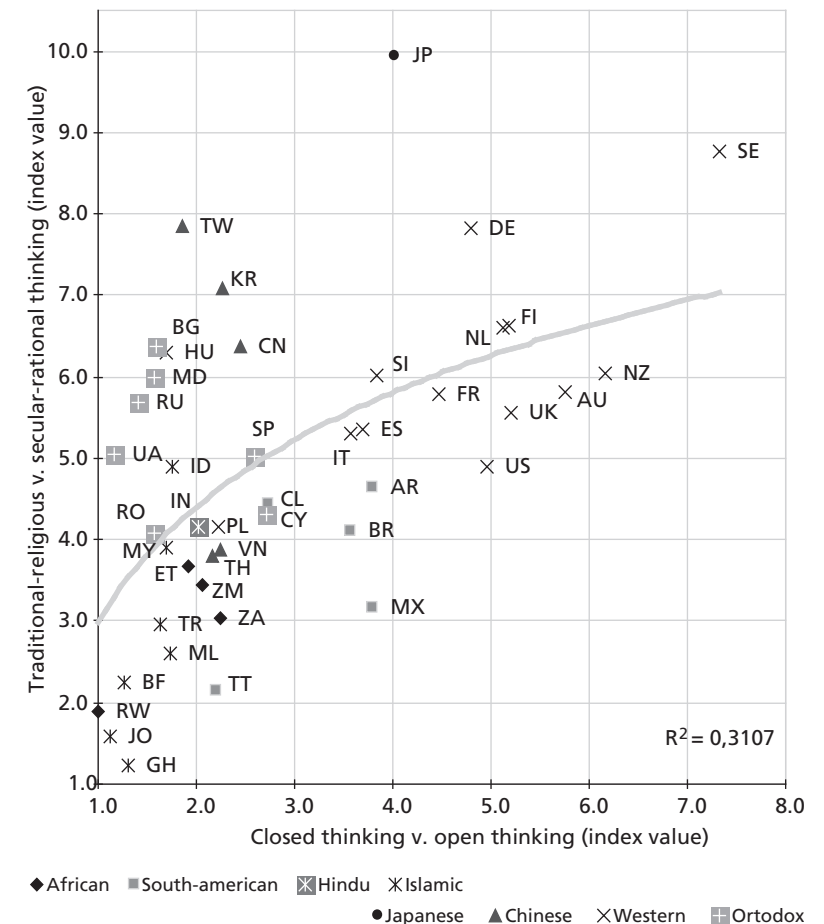
If we try to orient ourselves with the help of a map, the most important thing is to identify our position. On the one hand, it can be done by positioning us considering our immediate vicinity, and on the other, we can be aided by certain absolute coordinates (point of the compass, lateral and longitudinal, or GPS coordinates), by which we can "adjust" the map. The situation is almost the same when we want to be oriented on the "map" of values. It is obvious that if we define our position (in geographical or cultural sense) relative to the neighbouring countries, general (theoretically or empirically defined) correlation among the data helps us to "adjust the map".

On *Figure 1*, we have located the countries included in WVS wave 5 (44 countries of the world) in the "space" of traditional–religious v. secular–rational thinking and closed thinking v. open thinking. The figure shows that Hungary is located on the periphery of the similar block of countries with *Western* culture, close to the countries with Orthodox culture. In the investigated two dimensions the Hungarians are closer to the way of thinking of the Bulgarians or of those living in the Republic of Moldova than to Slovenia, which is closer to us in geographical terms. As to the "adjustment" of the map, we can conclude, based on the general correlation among the data, that the Hungarian scale of values is relatively secular, and is rather closed⁷. Several experts agree with the statement that the Hungarian society can be classified closed in its thinking also in international comparison. The researches of Füstös and Szokolczai (1999) proved that between 1978 and 1998, the general public continued to consider the values of peace and security the most important. A research conducted in 2006 based on Hofstede's cultural values concluded that the Hungarians could be characterised also in international comparison, as short-term thinkers and insecurity avoiders (Neuman-Bódi et al. 2008). In addition analysing the data of many international surveys Tóth (2009b) points out the very high proportion of distrust in the Hungarian society.

⁶ The author distinguishes among eight civilisations: the Chinese, the Japanese, the Hindu, the Islamic, the Orthodox, the Western, the Latin-American and the African. The list shows that one of the decisive forces of the cultures is religion, though not all the religions can be clearly attributed to civilisation.

⁷ Hungary is classified relatively closed thinking even when we use the data from the latest wave (2008) of European Values Study (EVS) instead of the 5th wave of WVS (see Appendix 3.).

Figure 1. The position of 44 societies of the World on the values space drawn by traditional–religious v. secular–rational thinking and closed thinking v. open thinking



The axes are the sum of z-scores (footnote 3.), and have been transformed to the positive direction for the purpose to adjust the logarithmic model.

Table A1 shows the meaning of the letter-combinations indicating the countries.

Source of data: WVS wave 5.

Naturally, the values show close correlation with the social features. Inglehart (1997: 134) deals in detail with the effects of age and education. He supports, also with data that the ratio of post-materialist (open thinking) people is higher among the younger age cohorts and the more educated social strata. Since our analytical units are the countries, it is possible that the diverse structure of the different societies influences the position of the countries on the map of values. In order to create a "common denominator" for the countries in sociological terms, I have investigated whether the position of the individual countries changes in the two-dimensional space shown on *Figure 1* if we investigate homogenous groups of countries by age and education.

On *Figure 2* I took into account only the answers of the respondents under the age of 35 to prepare the already known two-dimensional value map. On *Figure 3*, however,

following the same logic, I investigated the answers of those with higher educational level only. On both of the Figures, the data reflect our expectations stemming from theoretical considerations. Secular-rational and open thinking is somewhat higher both among the young and the educated people than in the whole population. General correlation among the data also improves in the models containing "selected" variables, since the adjustment of the logarithmic model, compared to the model containing the data of the whole population, is higher in both cases.

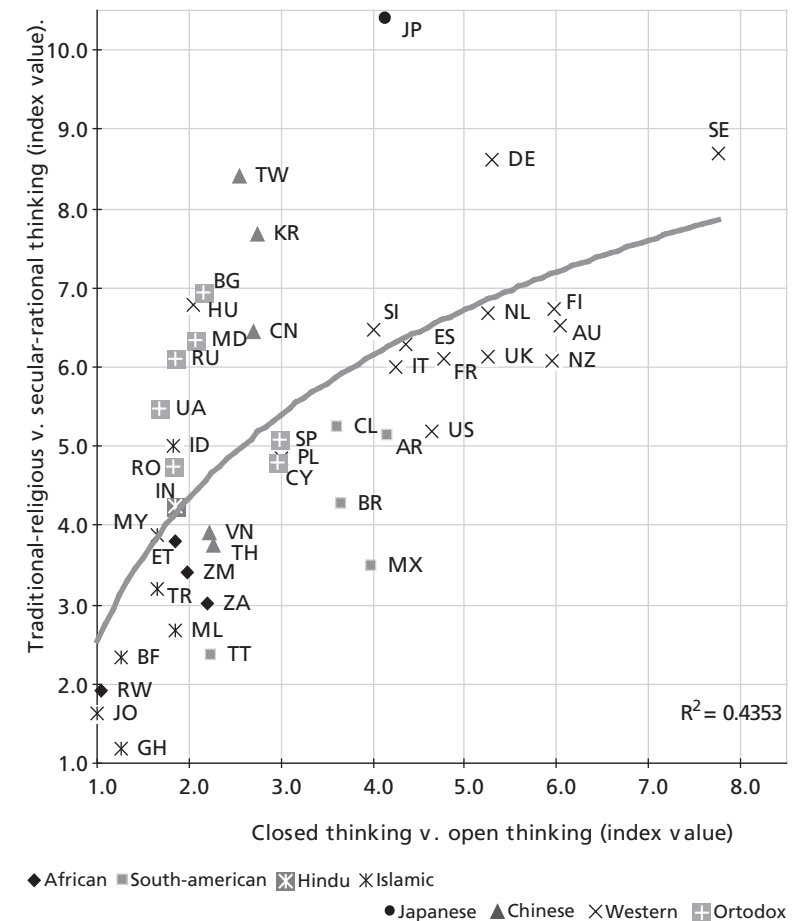
As to Hungary, the "selection" by age (Figure 2) did not modify significantly the position of the country on the axis showing *closed v. open thinking* from the perspective of its position on the "map". However, a significant positive change can be registered if we only apply the analysis for the respondents with higher education (Figure 3). At the same time, the Hungarian data point is pretty much away, also in this case, from the centre of *Western* culture, though it is not "connected" that much to the *Orthodox* culture. After all we can conclude that closed, introvert thinking, typical of Hungary is far away not only from the core point of the *Western* culture, but it does not stem from the social composition of the country either. The value data cleaned, to a certain degree, from age and education does not change *essentially* the country's position.

Up to now I tried to find the explanations for Hungary's distance from the majority of the countries with *Western* culture on the value axis measuring closed v. open thinking in the difference of the social structure. Another explanation might be the comparison of the values with *economic development*. According to the idea of Inglehart, economic environment defines the choice of values (Inglehart 1997: 33). Converting Inglehart's finding to make it suitable for empirical examination: the richer a country is, the higher its scores should be on the axes called *traditional-religious v. secular-rational and closed thinking v. open thinking*.⁸

If we compare the positions of the countries on the values axis to their per capita GDP calculated in US dollars (USD) on the basis of purchasing power parity (PPP), we can conclude that Hungary, compared to its GDP, is a society with far more *closed* thinking (Figure 4), since Hungary's data point is located far below the line expressing general correlation between the two variables. At the same time, the value point on the *closed v. open thinking* axis differs the most from the GDP in the case of Hungarians. However, the Hungarian data point can be considered less exposed in comparison to the GDP in the dimension of *traditional-religious v. secular-rational values* (Figure 5), though we can conclude that compared to the GDP, *secular-rational* thinking is more typical of Hungary. Consequently, Hungary's irregular position is not the result of the level of economic development of the country. Moreover, on the contrary, we can talk about a much more *closed thinking* compared to the level of economic development in the case of the Hungarian data point.

⁸ With this statement we presume linear correlation among the data. Based on the original theory, it would be more correct to assume *logarithmic* correlation between the *secular-rational* values and the GDP, and *exponential* correlation between the values of *self-expression* and GDP. Namely, according to the hypothesis, the process of secularisation does not continue after a certain level of economic development, while the process of becoming an open society does not start. However, empirical evidences show in both cases that linear adjustment possesses the strongest explanatory force.

Figure 2. Score values calculated for the population under the age of 35 in the values space drawn by traditional-religious v. secular-rational thinking and closed thinking v. open thinking



The axes are the sum of z-scores (footnote 3.), and have been transformed to the positive direction for the purpose to adjust the logarithmic model.

Table A1 shows the meaning of the letter-combinations indicating the countries.

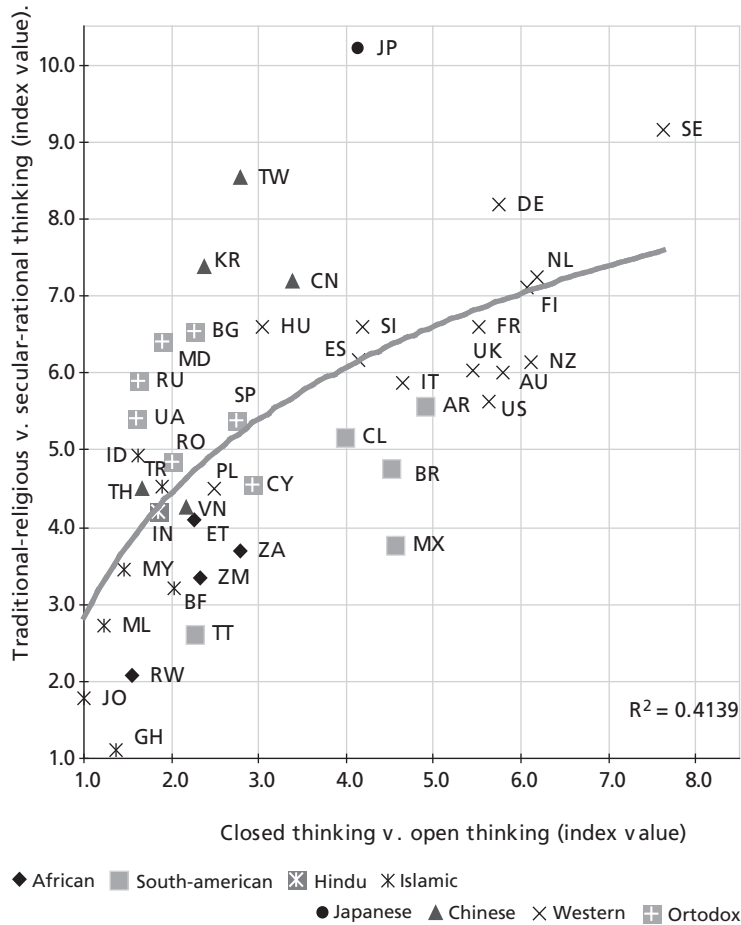
Source of data: WVS wave 5.

It is also worthwhile to investigate the changes in time of the actual positions registered on the values map⁹. In the majority of the countries, 5–6 years have passed between WVS waves 4 and 5. On Figure 6 we show the data of both waves in the case of certain countries. Visual depiction is useful, partly because this way we can follow in time the differences in the values by countries, and also because in wave 4 the European countries were represented in a much wider spectrum, thus, for example, we can compare the Hungarian data with the Slovak and Czech

⁹ In principle, the statements of the Inglehart theory on the trend of "development" could be "verified" from the direction of changes.

data in wave 4. During the decade¹⁰ which had passed between WVS waves 4 and 5, Hungary became more secular and more open. Though it is in accordance with the expectations¹¹, even the latest Hungarian data gathered in wave 5 are quite far from the Slovak and Czech data measured in wave 4.

Figure 3. Score values calculated for the population with higher educational level in the value space drawn by traditional-religious v. secular-rational thinking and closed thinking v. open thinking

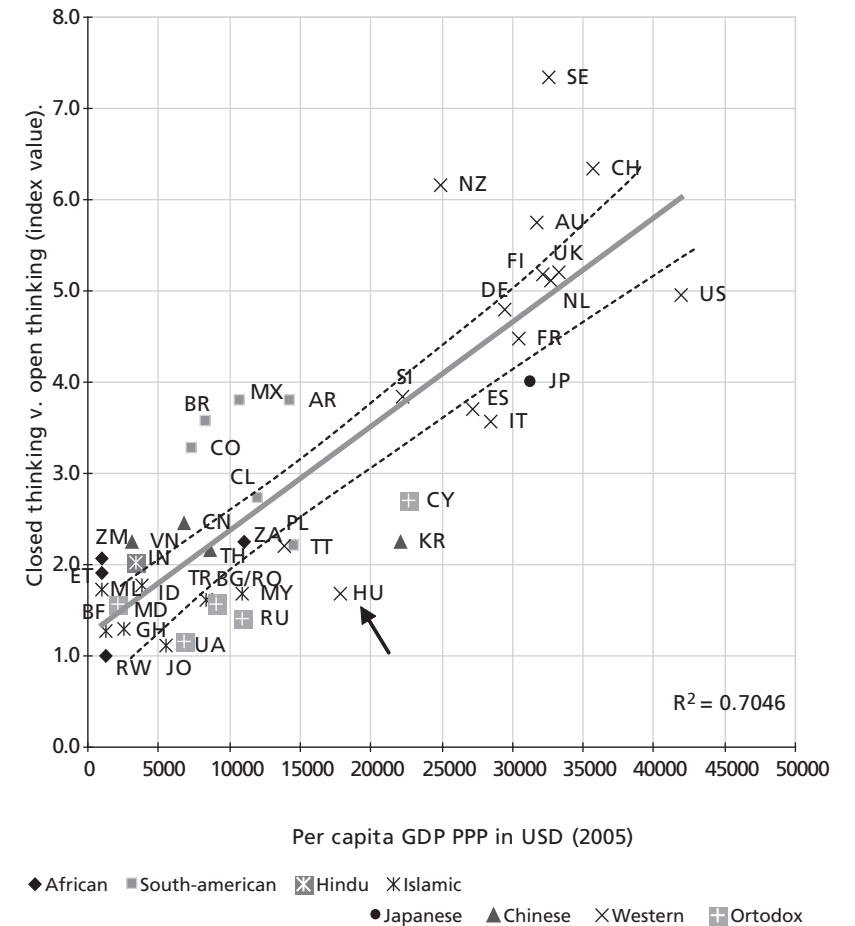


The axes are the sum of z-scores (footnote 3.), and have been transformed to the positive direction for the purpose to adjust the logarithmic model.
Table A1 shows the meaning of the letter-combinations indicating the countries.
Source of data: WVS wave 5.

10 The data of WVS wave 4 were registered by Szonda-Ipsos Media, Advertisement, Market, and Opinion Research Institute in 1999, while the data of WVS wave 5 were registered in 2009, and TÁRKI Social Research Institute orchestrated the questionnaires.

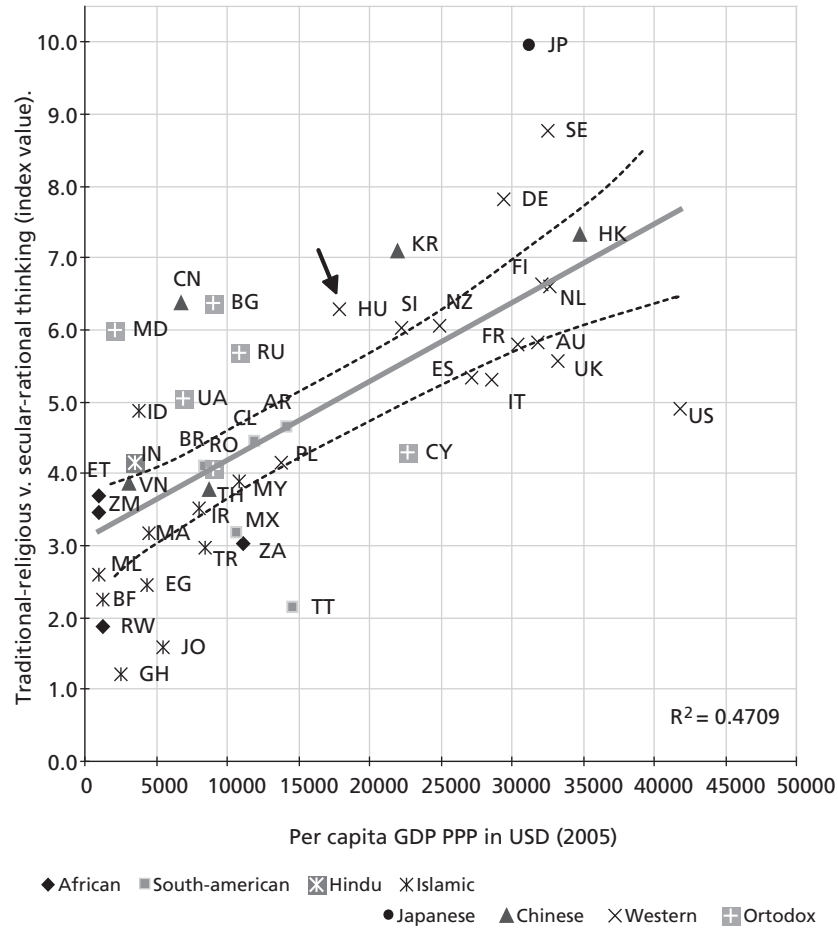
11 However, the change is not of self-explanatory nature, since between 1981 and 1990 (WVS waves 1 and 2) besides South-Africa it was only Hungary which made a backward move on the *closed v. open thinking* values axis (Inglehart 1997: 336).

Figure 4. Relationship between the closed thinking v. open thinking value axis and per capita GDP PPP



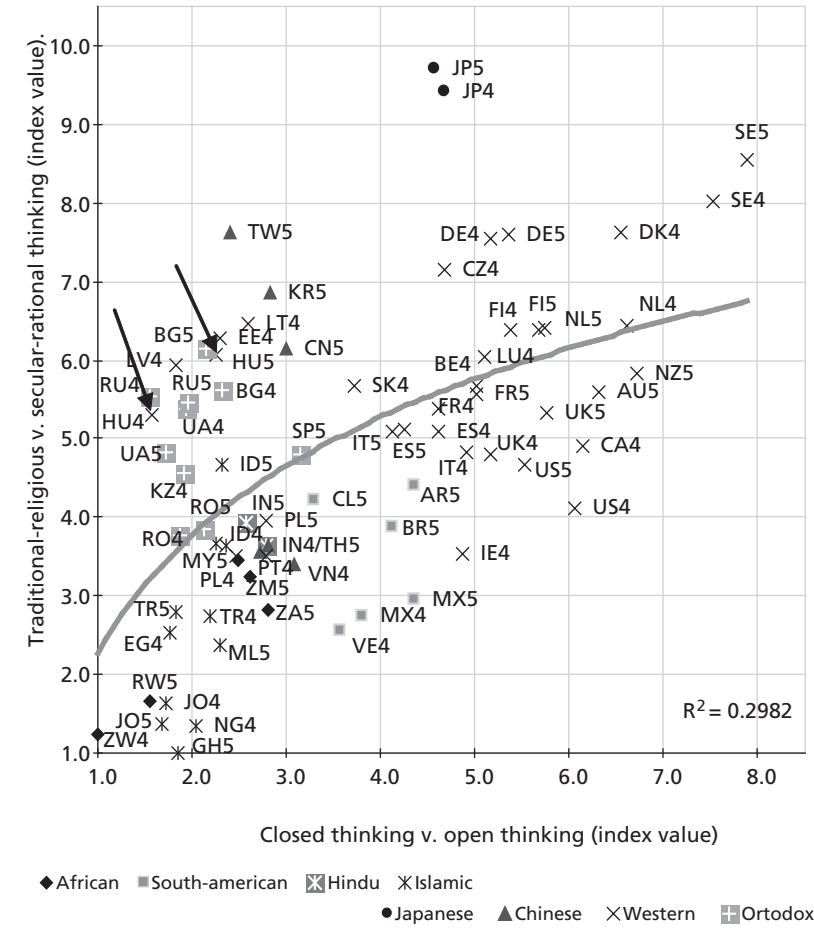
Axis X: Per capita GDP defined on the basis of purchasing power parity and calculated in US dollars.
Source: Human Development Report, 2007/2008 (United Nations: 2007)...
The confidence interval where the regression line can be found with 95% probability is indicated with broken line of the Figure.
Table A1 shows the meaning of the letter-combinations indicating the countries.

Figure 5. Relationship between the traditional-religious v. secular-rational value axis and per capita GDP PPP



Axis X: Per capita GDP defined on the basis of purchasing power parity and calculated in US dollars
 .Source: Human Development Report, 2007/2008 (United Nations: 2007).
 The confidence interval where the regression line can be found with 95% probability is indicated with broken line of the Figure.
 Table A1 shows the meaning of the letter-combinations indicating the countries.

Figure 6. Position of 55 societies of the World in the values space drawn by traditional-religious v. secular-rational thinking and closed thinking v. open thinking – changes during the term of 5–6 years



The axes are the sum of z-scores (footnote 3.), and have been transformed to the positive direction for the purpose to adjust the logarithmic model.
 Table A1 shows the meaning of the letter-combinations indicating the countries.
 Data source: WVS waves 4 and 5. In the case of certain countries, only one data point could be visualised. Countries represented only in WVS wave 5 are: AR, AU, BR, CL, CN, ET, GH, KR, ML, MY, NZ, RW, SP, TH, TW, ZA, ZM. Countries represented only in WVS wave 4 are: BE, CA, CZ, DK, EE, EG, IE, KZ, LT, LU, LV, NG, PT, SK, VE, ZW

According to the conclusions of the “maps” presented above, *closed thinking*, typical of the Hungarian scale of values as an irregularity, can be correlated directly neither with the social–demographic features nor with the level of economic development of the country. The investigation of timely changes in the values also shows that Hungary is located permanently, away from the core of *Western* culture, especially due to the low score value achieved on the *closed v. open thinking* value axis. This fact requires that we investigate, in a more detailed manner, the primary variables constructing the elements of this abstract axis. If we deduct from the coordinate of all the data points attached to *Western* culture the coordinate of the Hungarian data point, and if we execute it not only on the *closed v. open thinking* value axis, but also in the case of all the five elements thereof, then the distance of Hungary from *Western* culture can also be analysed by means of regression analysis. In this case, the purpose of the analysis is to investigate which dimension of the index is responsible for the Hungarian data being far away from the centre of *Western* culture on the *closed v. open thinking* value axis. More precisely, can we make any of the dimensions of the general value index responsible for this deviation, and can we identify the dimensions which possibly have a negligible effect only. The results of such a regression analysis confirmed that all the five elements of the *closed v. open thinking* value axis are equally responsible for Hungary’s closed thinking.¹²

Located at the borderline of the West and the East

The most important finding of my previous research work was that Hungary is located somewhere on the borderline of the Western and Eastern values structure. Otherwise, this statement is not only a values-structure characteristic one, since previous works – mostly historical – also called the attention to the fact that Hungarian history simultaneously bears the characteristic features of Western and Eastern social development. “Western feudalism is exactly characterised by (...) the organic spontaneity and downside-up development of its core structural elements. The internal principles of organisation of the »society« were predominant as opposed to the »state« (Szűcs 1983: 60–1). In Hungary, however, “a disproportionately wide stratum of nobility proliferated very early, which, gaining class consciousness and autonomy quickly, took over, without feudal transposition the early feudalistic state framework of regionalism, the counties; simultaneously blocking in class terms the »downward-up« flow of local legality, whose frame, in the West, was the feudal territory” (Szűcs 1983: 62). Otherwise, in accordance with the argumentation of the study, while in the West social trends define the operation of the state, in the East, it is the functioning of the state which defines the social processes. In connection with the diverse origins of the “small circles

12 In practice it meant that the significance values attached to all the five explanatory variables differed from zero at a value below 5%. Otherwise, the data of 29 countries were included in the analysis, and I used the data of WVS wave 4, as this was the only way to reach this relatively acceptable element number. The analysis is shown in the whole length in (Keller: 2009).

of freedom” it is not difficult to notice the similarities with the notion of closed v. open thinking, whose central thought and notion is also freedom (no matter whether we speak about the expression of opinion, confidence, or tolerance).

Otherwise, it is difficult to put historical processes in the centre of statistical analysis. Jenő Szűcs mentions, in connection with a kind of opposition between urban bourgeoisie and feudal social structure certain criteria which, after having identified the correct transposition can be used for the investigation of statistical correlation as well. “After all, those rigid facts say the most about Hungary’s structure in comparison to the West, which indicate that here, at the end of the middle ages, every 20th or 25th person was noble, while in France, for example, every 100th, and in Hungary, only every 45th or 50th was a free citizen, while in France, every 10th.” (Szűcs 1983: 67).

Though it would be complicated to investigate the proportion ratio of urban civilians, the data of foundation of the universities in the middle ages, which can be related to bourgeoisie can be defined quite exactly (Table A2.). I have collected the data concerning the years when, in the given countries (taking into account the current borders) the first university was founded¹³. In general¹⁴, thinking is more open in those countries, where universities have appeared relatively early (and where, presumably, the bourgeoisie was also stronger). However, we have to add, that in Prague (Czech), Krakow (Polish), Vienna (Austrian) and Pécs (Hungarian), the first universities were founded more or less at the same time, while the respective countries significantly differ from each other in terms of open v. closed thinking. In complexity, the foundation of the first university is far from being the best indicator of the Eastern and Western thinking of historical origin, since the first university in Leiden, Holland was founded more or less at the same time as the university in Vilna, Lithuania.

Another indicator of the diverse Western and Eastern social-historical trends might be the date of the emancipation of serfs. By definition, the institution of servitude includes a relationship of subordination which is contradictory to the Western-type democratic model. In addition, the serfs, representing constraints before free movement of labour, also hindered capitalist development. On Figure 7 I compared the index value of closed v. open thinking to the date of emancipation of serfs within the geographical territories representing the current national borders. In the case of some of the countries – Germany, Rumania, Poland, and Lithuania – this date is fictitious, as it represents the average of several dates of year.¹⁵ Based on the figure it can be concluded that the earlier the citizens of a country became, at least in philosophical sense, equal, and simultaneous with it, the earlier the obstacles before capitalist development were removed, the more typical the relatively open thinking is of a country. The most interesting special feature of the Figure is,

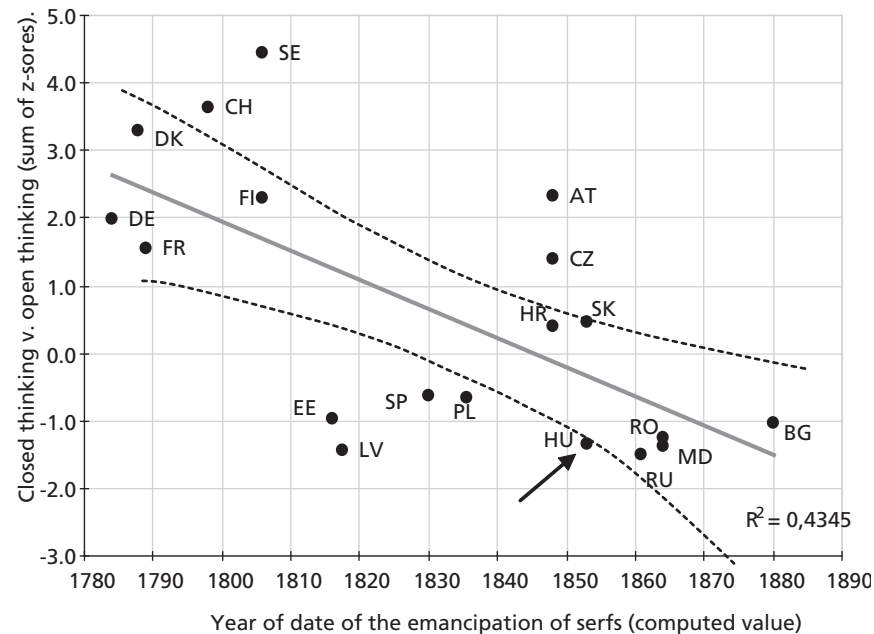
13 Source of the data: http://en.wikipedia.org/wiki/List_of_medieval_universities. Date of downloading: 20 February 2010.

14 Universities founded up to the end of the 15th century were included.

15 For this reason, regional data should be used to find historic explanations (Tabellini 2005).

that the countries can be grouped into three: Western (upper left corner), Eastern (lower right corner), and middle countries. The fact also deserves attention that Hungary is in the vicinity of Rumania, Moldova and Russia.

Figure 7. Correlation between closed v. open thinking and the date of emancipation of serfs (as one of the indicators of urban civilians) within the present territories of the countries



Axis Y: The average of the point values on the closed v. open thinking axis registered in WVS waves 4 and 5 (data were not transformed to the positive direction).

Axis X: source of the data: <http://en.wikipedia.org/wiki/Serfdom> and <http://de.wikipedia.org/wiki/Leibeigenschaft>. Date of downloading: 20 February 2010. In the case of certain countries the dates are „fictitious“ (averages of several dates of years).

Naturally, if we compare the index value of closed v. open thinking to social-historical data, the correlation shall be significant¹⁶ in all those cases, when the selected historical indicator can be correlated to modernisation. In my opinion, however, such historical explanatory principles have a role in the identification of Hungary's position, and not in the identification of certain types of correlation. From this perspective, the real message of *Figure 7* is, that though in Hungary, the socio-historical barriers before modernisation ceased to exist more or less at the same time as in the other Central-East European countries, Hungarian thinking, compared to the other countries of the region, is still more closed, and is more similar, in this respect, to the orthodox (Eastern) culture.

¹⁶ Otherwise, the date of emancipation of serfs shows significant positive correlation with the index value of traditional-religious v. secular-rational thinking.

Some of the possible explanations

Naturally, one of the explanations for closed thinking is poverty. Inglehart's researches also support (1997) that the values of a country show strong correlation with the material welfare of the country. However, it is also important to note that in many cases, poverty itself is only an excuse to delay or not to execute certain things (Banfield 1967). Otherwise, on *Figure 4* it could be seen that compared to its level of development measured with per capita GDP Hungary is more closed in its thinking. Further on, I shall investigate two additional, probable explanations. First of all, the *lack of education*, which can also be partly related to poverty, but, in addition to that, we may presume that those who do not have enough information about the external world are not interested enough about its events either. Consequently, narrow-mindedness, in a limited sense, also appears at the level of values in the form of closed, introvert thinking. The second option for explanation is *excessive burden*. In this case we may argue that closed thinking also represents a kind of self-accomplishment (and, as such, requires a lot of free time), but if making a living takes a lot of time, the development of closed thinking is more than natural¹⁷.

Otherwise there exists a fundamental divergence of opinion between the above two possible explanations. If we correlate the lack of education with closed thinking we make the *individual* responsible for introvert thinking (if we check in every country the institutional opportunities). The opposite of this approach is, if we make *social conditions* responsible for closed thinking and state that introvert thinking is the end result of certain country-specific features which fall outside of the individual.

The lack of education was measured with the proportion ratio of university students, while excessive burden was measured with the number of hours worked. Naturally, both the indicators (similar to closed v. open thinking) have strong correlation with the level of modernisation of the country. Besides this, *institutional opportunities* in the case of the lack of education, and *inefficiency* in the case of excessive burden as factors systematically distorting the selected indicator shall also be handled. As both the disturbing factors can be correlated with the level of economic development, I opted for the solution to divide, by means of regression analysis, into two components all the indicators used in this analytical unit (proportion ratio of university students, average number of working hours per year, closed v. open thinking index). One of them is the component which can be explained with the country's GDP, and the other is independent from it. Then I continued my work using the GDP-independent (un-standardised residuum) component.

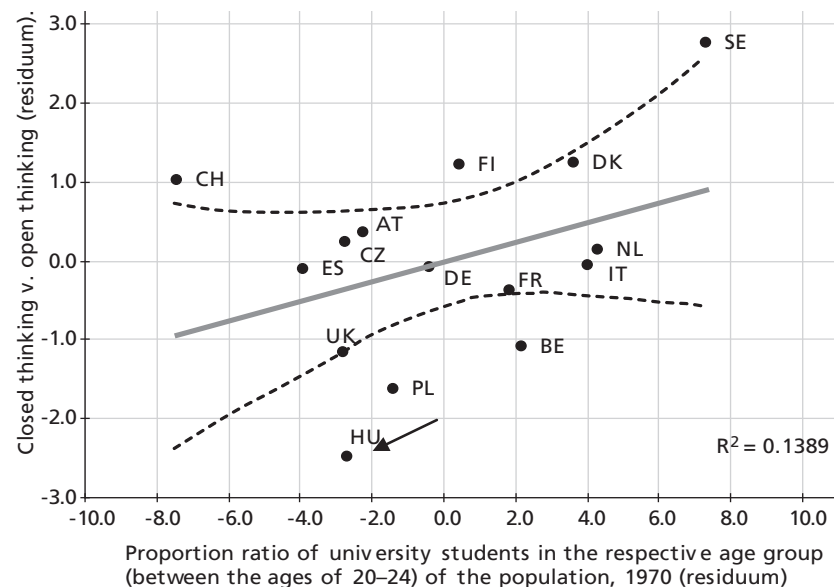
Another question to be answered is the year of origin of the different indicators. The closed thinking v. open thinking index value was given. In the case of the number of university students calculated in the proportion ratio of the adequate age group of the population I have selected the year 1970, because in practice, the expansion of higher education started as of the years 1960 and 1970 in every country (Tomka 2009: 458). Prior to the above date, the ratio of the university students

¹⁷ It is another issue that longer working hours might also be the consequence of lower efficiency.

was low all over Europe, which also meant that the standard deviation of the respective data was close to minimum. In the case of the average number of working hours per annum, the earliest year of the international data available to me (Tomka 2009: 290), where Hungary was also mentioned was 1980, thus in this case I used this data. In the case of the GDP, I have chosen the earliest possible year uniformly available for the investigated group of countries (Tomka 2009: 255), namely 1890. Due to causal relationships, maintaining a kind of consistency with respect to time was also a requirement. Compared to the index value of closed thinking v. open thinking, both the explanatory variables originated from an earlier year, and the date of their measurement was preceded by the date of origin of the GDP.

The results are shown on Figures 8 and 9. It can be concluded from the Figures, that the Hungarian data point is an “extreme” value no matter whether we attribute closed thinking to internal (individual), or external (social) factors. Closed thinking in Hungary is stronger (the index value is lower) both compared to the ratio indicating the number of university students independent from the effects of the GDP, and to the index of the number of working hours also independent from the effects of the GDP. Otherwise, the correlation was in accordance with our initial hypothesis in the case of the countries included in the analysis (in the case of the lack of education it was positive, while in the case of excessive burden it was negative), and the correlation is independent from modernisation.

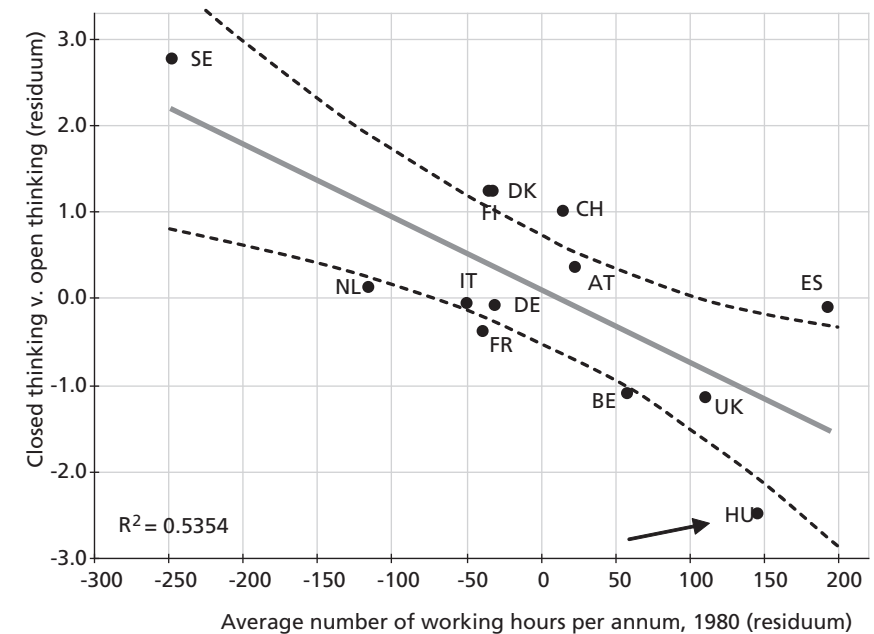
Figure 8. Correlation between closed v. open thinking and the proportion ratio of university students (as one of the indicators of the lack of education)



Axis Y: Source of the data: WVS waves 4 and 5. Indicator calculated from the data independent from the effects of GDP.

Axis X: Source of the data: Tomka 2009: 458. Indicator calculated from the data independent from the effects of GDP.

Figure 9. Correlation between closed v. open thinking and the annual number of working hours (as one of the indicators of excessive burden)



Axis Y: Source of the data: WVS waves 4 and 5. Indicator calculated from the data independent from the effects of GDP.

Axis X: Source of the data: Tomka 2009: 290. Indicator calculated from the data independent from the effects of GDP.

Summary

In this study I have analysed “values maps” drawn on the basis of well-elaborated, theoretical considerations (Inglehart 1997). My most important finding was that Hungarian thinking is *closed* and *secular*. With respect to secular thinking, Hungary can not be considered irregular among the countries belonging to Western culture. However, closed thinking, typical of our country, stems neither from the cultural features, nor from the level of economic development, and it is not related either to the social structure of the country, but, at the same time, it is a characteristic feature which does not change in time. Presumably, Hungarian closed thinking has historical reasons, because Hungary during history was influenced by both Western and Eastern historical/cultural influences. For this reason, in the second part of my study – as an experiment – I made steps towards the explanatory models, but these models are only in the experimental phase. Though the results can be theoretically explained, and are in harmony, in their trends, with the initial hypothesis, we have to continue to think about the indicated theoretical and methodological problems to consider the results really robust. With my findings I intended to contribute to the identification of the fact and to the multiple explanation of closed thinking in Hungary. The analysis

and data published in the first and also in the second part of my paper are not suitable to mention the fact of closed thinking typical of Hungary to postpone certain reforms or to use them as self-justification and/or excuse. However, the significance of this analysis, in my opinion, lies in the fact that, as opposed to the other Central European countries, the characteristic feature representing closed thinking in the Hungarian values structure shows more correlation with the way of thinking typical of *orthodox* culture, which, in this sense is “Eastern” thinking.

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Appendices

Appendix 1: Country codes used in the studies

Table A1. Country codes used in the studies

Abbr.	English name	Abbr.	English name	Abbr.	English name	Abbr.	English name
AL	Albania	DK	Denmark	KOS	Kosovo	RO	Romania
AM	Armenia	EE	Estonia	KR	S. Korea	RU	Russia
AR	Argentina	EG	Egypt	KZ	Kyrgyzstan	RW	Rwanda
AT	Austria	ES	Spain	LT	Lithuania	SE	Sweden
AU	Australia	ET	Ethiopia	LU	Luxembourg	SI	Slovenia
AZ	Azerbaijan	FI	Finnland	LV	Latvia	SK	Slovakia
BA	Bosnia and Herzegovina	FR	France	MA	Morocco	SP	Serbia
BE	Belgium	GE	Georgia	MD	Moldova	TH	Thailand
BF	Burkina Faso	GH	Ghana	ME	Montenegro	TR	Turkey
BG	Bulgaria	GR	Greece	ML	Mali	TT	Trinidad and Tobago
BR	Brazil	HK	Hong Kong	MT	Malta	TW	Taiwan
BY	Belarus	HU	Hungary	MX	Mexico	UA	Ukraine
CA	Canada	ID	Indonesia	MY	Malaysia	UK	United Kingdom
CH	Switzerland	IE	Ireland	NCY	North-Cyprus	US	USA
CL	Chile	IN	India	NG	Nigeria	VE	Venezuela
CN	China	IQ	Iraq	NIR	Northern Ireland	VN	Vietnam
CO	Colombia	IR	Iran	NL	Netherlands	ZA	S. Africa
CY	Cyprus	IT	Italy	NZ	New Zealand	ZM	Zambia
CZ	Czech Republic	JO	Jordan	PL	Poland	ZW	Zimbabwe
DE	Germany	JP	Japan	PT	Portugal		

Source of the abbreviations: <http://www.greenbuilder.com/general/countries.html> (date of downloading: 26 May 2009.).

Appendix 2: List of data used in the explanatory models

Table A2. Data used in chapters III and IV and their sources

	Date of foundation of the first university in the middle ages ¹⁸	Year of the emancipation of serfs (calculated number) ¹⁹	Average number of working hours per annum, 1980 ²⁰	Proportion ratio of university students in the respective age group of the population (20-24 years of age), 1970 ²¹	Per capita GDP, 1890 (Geary-Khamis' international dollar in 1990) ²²	Closed thinking v. open thinking ²³
AT	1365	1848	1755	12	2443	2.32
BE			1736	18	3428	1.74
BG		1880		15		-1.03
CH		1798	1707	8	3182	3.64
CZ	1348	1848		10	1505	1.39
DE	1386	1784	1696	14	2539	1.98
DK		1788	1693	18	2523	3.28
EE		1816				-0.97
ES	1212		1968	9	1624	1.16
FI		1806	1756	13	1381	2.28
FR	1229	1789	1696	16	2376	1.55
HR	1396	1848				0.40
HU	1367	1853	1930	10	1473	-1.37
IT	1204		1724	17	1667	1.24

¹⁸ Source of data: http://en.wikipedia.org/wiki/List_of_medieval_universities. Date of downloading: 20 February 2010.

¹⁹ Source of data: <http://en.wikipedia.org/wiki/Serfdom> and <http://de.wikipedia.org/wiki/Leibeigenschaft>. Date of downloading: 20 February 2010.

²⁰ Source: Tomka 2009: 290.

²¹ Source: Tomka 2009: 458.

²² Source: Tomka 2009: 255.

²³ The average of the point value on the closed v. open thinking axis registered in WVS phases 4 and 5 (data were not transformed to the positive direction).

	Date of foundation of the first university in the middle ages ¹	Year of the emancipation of serfs (calculated number) ²	Average number of working hours per annum, 19803	Proportion ratio of university students in the respective age group of the population (20-24 years of age), 19704	Per capita GDP, 1890 (Geary-Khamis' international dollar in 1990) ⁵	Closed thinking v. open thinking ⁶
LT						-0.67
LV		1818				-1.45
MD		1864				-1.37
NL			1569	20	3323	2.87
PL	1364	1836		11	1284	-0.65
PT	1290			8		-0.49
RO		1864		10		-1.27
RU		1861				-1.51
SE		1806	1503	21	2086	4.44
SK		1853				0.46
SP		1830				-0.63
UK	1209		1758	14	4009	2.19
Correlation with closed v. open thinking	-0.30	-0.66	-0.77	0.50	0.50	1.00

Appendix 3: Value map based on the European Values Study (EVS)

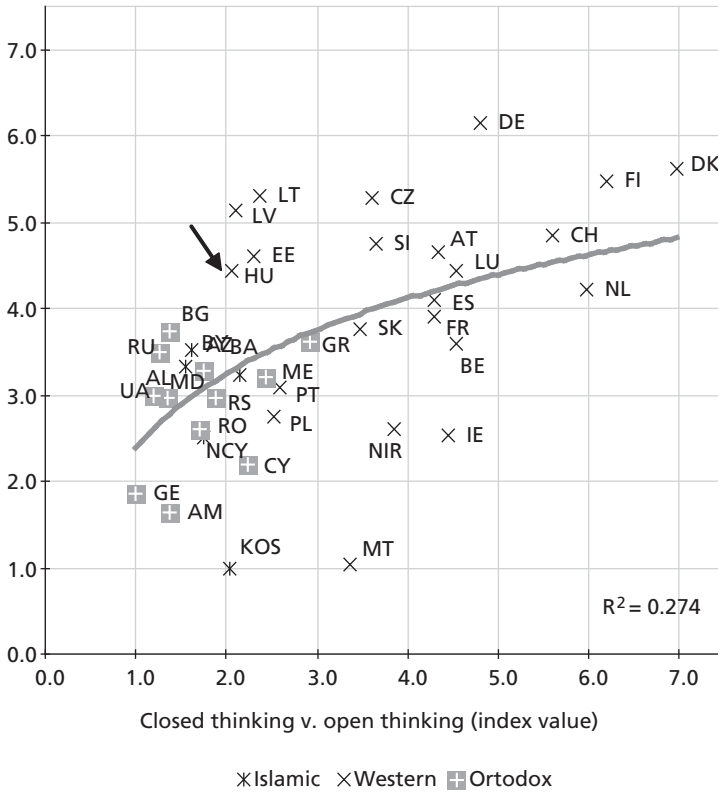
After closing the manuscript of this study the latest wave of the European Values Study (EVS) was announced, which contains the data of 39 European societies²⁴. Since my analysis is based on the 5th wave of WVS and this survey includes the data of European societies only in a limited number, it was necessary to check whether the position of Hungary changes in terms of close thinking versus open thinking if we place it among the European countries.

Figure A1 shows the countries in terms of “Traditional–religious thinking/secular–rational thinking” and “Closed thinking/open thinking”. The country coordinates are not comparable with those on Figure 1., since the method I used (z-score) is sensitive to the variance of the impute variable. Using different set of countries the total variance of the variable might be different. In case of “Traditional–religious thinking/secular–rational thinking” it should be a problem since, as we have seen on Figure 1, countries outside Europe are traditional-religious and these countries are missing from the EVS sample. The problem of different country-sets is less serious in terms of “Closed thinking/open thinking”, since the dispersion of West-European countries are high on that axis, and EVS contains their data.

Interpreting the results of A1 we can establish that the position of Hungary on the axis “Closed thinking/open thinking” is relatively far away from our neighbour countries like Slovakia, Czech Republic, Austria, and it is closer to the countries belonging to the orthodox culture like Bulgaria, Romania and Russia. On the other hand, on Figure A1 (compared to Figure 1) – regarding the axis “Traditional–religious thinking/secular–rational thinking” – the position of Hungary is farther from Bulgaria and Russia. But distances are relative and it is presumably influenced by the sample composition. Summing up our research on EVS sample we can conclude that in terms of “Closed thinking/open thinking” the position on Hungary is more stable using a different country set than the WVS countries. The neighbours of Hungary in EVS sample are the Baltic countries which are also relatively closed minded and secular, like Hungary.

²⁴ The data set contains 39 countries but the data from 46 countries will be available.

Figure A1: The position of 39 countries from EVS 2008 in terms of “Traditional–religious thinking/secular–rational thinking” and “Closed thinking/open thinking”



The axes are the sum of z-scores (footnote 3.), and have been transformed to the positive direction for the purpose to adjust the logarithmic model.

Table A1 shows the meaning of the letter-combinations indicating the countries.

Source of data: EVS, 2008.