Tomasz Szubert

DIVERSITY OF LIFE VALUES OF POLES – SPATIAL AND DYNAMIC RECOGNITION

1. INTRODUCTION

Man, as a rational and conscious being, seeks to develop and implement his needs, desires and life aspirations. These goals are determined mainly by respected values. They form a hierarchy, a system, and thus determine attitudes towards people, things and events, or determine behaviour and influence every decision.

Sources of values can be sought both in the man, in his personality, living conditions and socio-demographic characteristics, as well as in society at large and its impact on this individual by its rules, culture and laws. Values are not given once for whole life, they change over time and with changes in life conditions and situations. They are also diverse socially and spatially. For example a teenager from a big city will have different values than a pensioner living in the countryside.

In Poland, life values have been analysed for many years. It’s enough to quote here the cycle of studies known as the European Values Study (EVS), European Quality of Life Survey (EQLS), Social Diagnosis and reports of social research laboratories (e.g. CBOS 2010). They show, among other results, that in our country there is still a strong conservative tradition (Szymczyk 2010: 20-21; Jasińska-Kania 2012: 336-339) and that in recent years, as predicted by the theory of R. Inglehart, the values of traditionalism have given way to secular and rational ones. Individualism and self-expression have also grown in importance (Inglehart 2010: 6-7, Mariański 2006: 30).

While information about the distribution of life values for the whole country and even in international comparisons is often published (mentioned EVS and EQLS), we can rarely find a more detailed analysis taking into account

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the diverse socio-demographic characteristics of respondents, place of residence (by microunits – districts) or time analysis.

This study is therefore an attempt to raise knowledge on this topic.

2. PURPOSE, METHODS AND SOURCES

The aim of this study is to identify the diversity of respected life values in terms of space and time, broken down by districts, analysed for the years 2000–2013. This study set out two hypotheses: first, that there is a diversity of these values, both in time and space terms; and second that in this differentiation we can see some regularities, primarily territorial, because traditional analysis of trends was omitted.

For the outlined research problems, classical methods of spatial analysis in the form of Moran’s $I$ global and local statistics (with their help it was also elaborated so-called “spatial regimes”, i.e.: the regions with substantially similar or dissimilar distribution of the analysed variables) and cluster analysis (to extract the districts that exhibit similarity in terms of respected values) were utilised.

The following 13 life values were selected for analysis: money, children, successful marriage, work, friends, God and providence, optimism and serenity, honesty, kindness and respect, freedom, health, education and strong character. This set of values was derived from the source materials that were used. The data sources were the results of the largest panel research in Poland called “Social Diagnosis”, especially the second part of the questionnaire concerning the respondents’ individual opinions including the value system they profess. One of questions in the survey was: “What do you consider the most important condition for a successful, happy life?” These 13 values (with the addition of an “other” category) appeared as possible options to answer this question proposed variants of the answers. It is worth mentioning that the analysis covers only those districts where there were at least 10 adult respondents who took part in the study and answered the question about life values every year.

All calculations were performed in the spatial programme called PQ-Stat, and the cluster analysis was made in the Statistica software.
3. RESULTS OF THE RESEARCH

Before presenting more detailed results, at the beginning it is worth showing the distribution of values for the total number of respondents in each of the years, as shown in Figure 1. It should be clarified that in the Social Diagnosis questionnaire, respondents could select up to three values which are important in their lives, so the sum of the percentages shown in the charts in each of the years exceeds 100%.

As we can see from the presented graphs, for Poles the most important values are mainly the five shown in the chart on the left side: health, successful marriage, children, work and money, in order of most important to least important. Interestingly, throughout the entire period (with the exception of the last two categories, which often changed positions), the order of the values was the same. Only their percentages changed, with some values gaining importance and others losing it. Particularly noticeable is the fall in popularity of the category “money”: in 2000, 38.8% of the respondents who declared that value as important in their life, while in 2013 only 28.3%. Also, “successful marriage” lost its popularity (from 58.1% in 2000 to 50.5% in 2013). This may be the effect of a higher diversity of partnership forms and an increasing number of divorces in recent years, which may discourage some people from marrying (Teisseyre 2014) or – as we can see from the chart above – certainly weakens the importance of this value among Poles. In turn, the “children” category gained in popularity, showing an increase from 43.4% in 2000 to 48.2% in 2013. The chart on the right shows other values that are less popular than the first five.
because none of them reached a percentage of indications higher than 20%. From these values, the most important is “God and providence” (about 15–16% of the respondents declare this value), and the category “friends” was characterised by greatest increase (from 4.6% in 2000 to 9.2% in 2013).

Figure 2 is the first step in the spatial analysis. It shows how many respondents in each district participated in the Social Diagnosis survey in 2013 and recording the assumptions. The study was only of adults, and the analysis covers only those districts with at least 10 respondents; some regions on the map are not coloured in, as there were less than 10 adults who responded to the questions about life values. This article does not show maps from previous years, but the distribution of the districts are very similar. However, more “white spots” appeared earlier because subsequent years of the Social Diagnosis study included new people, some respondents from previous years declined to participate, so the larger samples are related to more recent years than for those from the beginning of the century. To be precise, in 2000 there 235 districts were analysed (62.0% of total 379), in 2003 – 316 (83.4%), in 2005 – 308 (81.3%), in 2007 – 349 (92.1 %), in 2009 – 361 (95.3%), in 2011 – 364 (96.0%) and 2013 – 363 (95.8%).

![Figure 2. Number of respondents in each district in 2013]

Source: own elaboration based on the Social Diagnosis survey.

Figures: 3a-3d, show which value dominated in a given district in the years 2000-2013. This article shows only four maps (for 2000, 2005, 2009 and 2013) to present both the spatial distribution and changes in time that occurred in these distributions. Thus, on all four maps, the dominant life value was “health” in the majority of the districts. In 2000, there were 109 such districts (out of 235 in total, 46.4%), 2005 – 176 (out of 308 – 57.1%), 2009 – 266 (out of 361 – 73.7%) and 2013 – 292 (out of 363 – 80.4%). Thus, it is clear that “health” is becoming the most important and dominant life value for Poles. Interestingly, in addition to health, only four other dominant values appeared: successful marriage (competing for first place with health in 2000), children, money and work. Occasionally, two other values appeared as dominant ones: “God and
providence” for the city of Elbląg in 2003 and “strong character” in the Szczycieński district in 2007.

In trying to perceive any regularities in space, in 2000 it is difficult to identify any correlations, in 2005 “money” is present more often in the districts of northern Poland than in the south, in 2009 again we cannot see any clear patterns and in 2013 few more districts in which the most important value is “children” appeared in the east of the country (Figures 3a-3d).

The next figures continue the attempt to find districts which have similar structures of life values. But first, Table 1 presents the values of the Moran’s $I$ global statistics (which examines spatial autocorrelation), both for each life value and each year. This way, we can see in which year and for which life value that some interesting correlations occurred. To help pinpoint these regularities, statistically significant correlations (p-value less than 0.05) are marked with grey background cells, although these regularities are not very significant (Moran’s $I$ global statistics are not very high).
Table 1. Values of Moran’s I global statistics

<table>
<thead>
<tr>
<th>Respected value</th>
<th>2000</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moran’s I</td>
<td>p-value</td>
<td>Moran’s I</td>
<td>p-value</td>
</tr>
<tr>
<td>money</td>
<td>0.090</td>
<td>0.085</td>
<td>-0.050</td>
<td>0.247</td>
</tr>
<tr>
<td>children</td>
<td>0.030</td>
<td>0.523</td>
<td>0.030</td>
<td>0.424</td>
</tr>
<tr>
<td>successful marriage</td>
<td>0.050</td>
<td>0.365</td>
<td>-0.020</td>
<td>0.675</td>
</tr>
<tr>
<td>work</td>
<td>0.010</td>
<td>0.862</td>
<td>0.000</td>
<td>0.938</td>
</tr>
<tr>
<td>friends</td>
<td>-0.030</td>
<td>0.648</td>
<td>0.040</td>
<td>0.277</td>
</tr>
<tr>
<td>God, providence</td>
<td>0.100</td>
<td>0.075</td>
<td>-0.010</td>
<td>0.817</td>
</tr>
<tr>
<td>optimism, serenity</td>
<td>0.080</td>
<td>0.155</td>
<td>0.030</td>
<td>0.426</td>
</tr>
<tr>
<td>honesty</td>
<td>-0.060</td>
<td>0.337</td>
<td>-0.040</td>
<td>0.436</td>
</tr>
<tr>
<td>kindness, respect</td>
<td>0.060</td>
<td>0.292</td>
<td>0.020</td>
<td>0.611</td>
</tr>
<tr>
<td>freedom</td>
<td>-0.020</td>
<td>0.829</td>
<td>-0.030</td>
<td>0.559</td>
</tr>
<tr>
<td>health</td>
<td>0.000</td>
<td>0.878</td>
<td>0.040</td>
<td>0.343</td>
</tr>
<tr>
<td>education</td>
<td>-0.080</td>
<td>0.159</td>
<td>0.050</td>
<td>0.230</td>
</tr>
<tr>
<td>strong character</td>
<td>-0.090</td>
<td>0.152</td>
<td>0.000</td>
<td>0.846</td>
</tr>
</tbody>
</table>

Source: own elaboration based on the Social Diagnosis survey.

The most significant autocorrelation was observed in the case of “God and providence” (2005, 2007 and 2013). There were two significant values of Moran’s I statistics for “money”, “children”, “successful marriage” and “strong character”, and one for “work”, “freedom” and “health”. It is also significant that all of them are positive autocorrelations. Due to the large number of combinations (7 years, 13 life values), the values of the Moran’s local statistics with spatial regimes will be presented only for some cases further below.

Next, the most interesting conclusions of the analysis for each life value will be discussed. These shall be enriched by the presentation of the mentioned local statistics. The order is determined by the weights of the values as they resulted from Figure 1. Thus, when it comes to health, the most interesting is Figure 4, which presents the 2011 spatial regimes. It most clearly shows the Masurian
region, where five districts belong to the low-low regime, so they have low percentage of this value and are surrounded by other districts with low percentage of health as the most important life value. They are the following districts: Olsztyński, Kętrzyński, Mrągowski, Szczycieński and Piski. The exception in the region is the Giżycki district, which belongs to a high-low regime, so that it is surrounded by municipalities with low percentages of inhabitants declaring the life value “health”, but itself has a high percentage. Just nearby to the west, there are two areas, the city of Elblag and the Elbląski district, that belong to a high-high regime; and four municipalities (Mogileński, Inowrocławski, Aleksandrowski and Lipnowski) form other low-low regime.

![Figure 4. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “health”](image)

Source: own elaboration based on the Social Diagnosis survey.

The Masuria region is also the most distinctive for another life value, “successful marriage”.

![Figure 5. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “successful marriage”](image)

Source: own elaboration based on the Social Diagnosis survey.

For example, as shown in Figure 5 describing 2013, this region has the largest number of municipality districts belonging to a low-low spatial regime, so there
are a lot of districts with a low percentage of residents who declare this value as important in their life, surrounded by other municipalities with similar trends. They are the following districts: Olsztyński, Bartoszycki, Kętrzyński, Mrągowski and Węgorzewski. An exception is the Lidzbarski district, which lies in the neighbourhood of this regime, but itself has a large proportion of respondents who adhere this life value against the background of these communities. Another characteristic region is around the Hel peninsula: two municipalities (Pucki and Wejherowski) located there belong to a high-high regime.

The next value, “children”, is characterised by the fact that there was a significant Moran’s global autocorrelation in the years 2011 and 2013. In turn, analysing the map of regimes, we can see three interesting regions. The first one (Sejnerński, Augustowski and Sokólski districts, which lie in the north-easternmost of the country) are municipalities forming a high-high regime. They contain a high proportion of residents for whom children are important in life, and these districts are surrounded by other municipalities also with high proportions of such residents. The second (four districts located in Masuria) and a third region (six districts in the Podkarpackie province) belong to low-low regimes, so they have relatively low percentages of respondents who choose children as their main value and are surrounded by municipalities with a similarly low fraction.

![Figure 6. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “children”](image)

Source: own elaboration based on the Social Diagnosis survey.

When it comes to “work” especially interesting presents itself spatial regimes maps for 2007 and 2009. During these periods, the Drawski and Walecki districts (located in the Zachodniopomorskie province) were included in a high-high regime. Browsing the maps for the remaining years, which have been omitted due to the page limitations of this article, high-high regimes also appeared mostly in the Pomorskie region, so this area contains most of the districts that have a high percentage of residents who consider work
as main life value. If we look at the map showing the distribution of unemployment in Poland (e.g.: in GUS) or read previous studies (including Marody, Lewicki 2010: 101-102), we can understand why here work has become such an important value.

![Map of spatial regimes with statistically significant Moran's local autocorrelation for the value “work”](image1)

Figure 7. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “work”.

Source: own elaboration based on the Social Diagnosis survey.

The distribution of spatial regimes for the next value, “money”, again points to the Masuria region. In 2009, three districts there (Braniewski, Bartoszycki and Lidzbarski) formed the first clearly visible high-high regime. What is more, there are more clusters of these regimes. These are the Ślawieński and Koszaliński districts in Pomerania, the Świebodziński and Krośnieński districts in the west, the Złotoryjski and Lwówecki districts to the south-west), the Skierniewicki and Rawski districts near Warsaw, the Toruński district and the city of Poznań. It is characteristic that more of these high-high regimes occurred in the western and northern Poland. For confirmation of this fact,
it is worth noting that districts located in the south-east (Rzeszowski, Leżajski, Przeworski, Miechowski and Pińczowski) form low-low regimes.

The most interesting regularities were revealed in the next analysis, which concerns the values of “God and providence”. For example, looking at Figure 9 which presents the years 2007 and 2013, it is clear that the regions belonging to a high-high regime lie this time in the south-eastern part of the country (in 2007 especially the Podkarpackie, Lubelskie and Świętokrzyskie provinces, and in 2013 also the Podlaskie and Małopolskie provinces), while those in a low-low regime lie in western Poland (in 2007 the main representative of this regime was the Zachodniopomorskie province, in 2013 the Gryfiński and Pyrzycki districts). Many researchers indicate that the primary determinant of this division is not the battle of political ideas, as might be attributed by the media nowadays, but more deeply-rooted traditions of these regions (Śpiewak 2011: 515-519).

![Figure 9. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “God and providence”](image)

Source: own elaboration based on the Social Diagnosis survey.

The remaining eight values, as shown in Figure 1 are not as popular as those discussed above. It was decided that they would not be discussed separately, and only a few examples showing some interesting regularities were selected. Thus, when it comes to “strong character”, in 2013 a very extensive high-high regime appeared in Masuria (see: Figure 10 map on the left). In terms of “education” (see: Figure 9 the map in the middle), we can see two high-high regimes that are also in Masuria, but a little more to the south than in the case of “strong character”, and three districts located in the west of the country (Krośnieński, Świebodziński and Zielonogórski). In the case of “optimism and serenity” (see: Figure 9 map on the right), in 2013 there were three major regions belonging to a high-high regime – again it was districts located in Masuria, three municipalities from the east of the country (Biański, Parczewski and Włodawski) and two in Silesia (Częstochowski and the city of Częstochowa).
At the end of this part of the analysis, Figure 11 shows the distribution of spatial regimes for the value “freedom” for the years 2007 and 2013. This time, the most characteristic (because it was quite numerous and repeated over time) high-high regime appeared in Silesia (which was created especially by the Częstochowski, Kłobucki, Lubliniecki, Oleski, Wieluński and Pajęczanński districts), but also again in Masuria in 2013 (Mrągowski, Giżycki, Węgorzewski and Gołdapski districts). In this year, a high-high regime was also noted in the Kujawsko-Pomorskie province (Golubsko-Dobrzyński, Brodnicki and Nowomiejski districts). The rather large number of municipalities belonging to the high-high regime (and only single low-low or low-high regimes) confirms the observation of most researchers that individualism and freedom mean more today (including Bartkowski 2009: 14-18).

Figure 11. Spatial regimes with statistically significant Moran’s local autocorrelation for the value “freedom”

Source: own elaboration based on the Social Diagnosis survey.

The analysis indicating the locations of the characteristic spatial regimes (i.e.: the districts which, according to the Moran’s local statistics, are surround either by municipalities of a similar or a different percentage of residents declaring a given value to be important in their lives) was proceeded...
by an overall assessment of the districts’ diversity and respected life values using a cluster analysis. For this purpose the method of $k$-means was used to extract two clusters that maximise the differences between them in the values respected. The idea was to see which municipalities differs the most from each other, forming the extremes. The analysis resulted in a quite interesting effect. For example, in 2013 the neighbouring districts mostly belonged to the same cluster, but the similarity was not as extensive in space, i.e.: these clusters do not cover half Poland, but only several municipalities. From Figure 12, it can be seen that the most extensive areas of homogeneous communities belonging to one cluster occurred in the north of the country. The Pomerania region is the domain of clusters marked by a darker colour like the western part of Masuria, while the eastern part of Masuria belongs to the second cluster (shown by a lighter colour).

![Figure 12. Results of cluster analysis (k-mean method) dividing districts into 2 clusters for 2013](image)

Figure 12. Results of cluster analysis (k-mean method) dividing districts into 2 clusters for 2013

Source: own elaboration based on the Social Diagnosis survey.

Figure 13 was made to try and see the main differences between the main clusters. It shows the average percentage of respondents declaring a concrete value as important in their life. As a result, it was noted that the first cluster (the darker one) consists of districts whose inhabitants demonstrate a more material approach to life: they have greater percentage of residents declaring “money” and “work” as important life values (this cluster was operatively called this). In turn, the second cluster can be called “family and God”, because it is dominated by people respecting such values as “successful marriage”, “children” or “God and providence”.

It is worth going back for a moment to Figure 12 and note that generally there are more districts belonging to the second cluster (“family and God”), which confirms observations of many researchers that Poland is still closer to the “federal family” model than to that of “civic community”, and the traditional model of socialisation is still strongly rooted (Wozniak 2009: 12-13).
Figure 13. Distribution of life values of Poles divided into two clusters in 2013

Source: own elaboration based on the Social Diagnosis survey.

Because the cluster analysis was performed not only for 2013 (Figure 12), at the end of the research it was attempted to check which districts always belonged to the same cluster, as shown by Figure 13 below.

The one on the right shows repeatability over a narrower period of time (only for 2009–2013). It can be noted that more districts which remained in the “money and work” cluster lie in the north of the country, and the municipalities consistently belonging to the “family and God” cluster are located the south and east. It is also significant that more districts marked with a lighter colour (these belonging to the “family and God” cluster) are surrounded by large metropolitan areas such as Warszawa, Kraków, Łódź, Opole and Poznań. This can confirm the observations of many social scientists that traditional Polish conservatism remains precisely in rural areas, and large cities are dominated by a more liberal style focused on a career and money.
Indeed, small islands on the map symbolising urban districts often are marked with a dark colour (cluster 1), especially Poznan, Zielona Góra, Olsztyn and Radom.

4. CONCLUSIONS

Resuming the research, it is worth quoting once again the most important conclusions. This analysis of the spatio-dynamic diversity of life values espoused by the Poles gave a positive answer to the hypotheses that this diversity exists and that there are certain regularities in this issue. In Poland, there is a noticeable division between the more conservative east and more liberal west. This partition was highlighted in the elaboration analysis; the analysis of the “God and providence” life value confirmed this diversity in particular. The most characteristic region of the country proved to be Masuria, where people pay attention primarily to the values of personal development (education, strong character, etc.). Omitting the variation of life values in time and space, health still matters most for Poles, but recently socio-family values (children, friends) are gaining in popularity, and those related to career and finance (money, work) have been losing significance.

REFERENCES


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ABSTRACT

The study concerned the diversity of life values espoused by contemporary Poles. The analysis was performed in spatial terms (division of the country into districts) and in time (years 2000–2013). The main purpose of the study was to verify the two hypotheses: that there exists diversity of respected values in terms of space and time, and that in this diversity there are some regularities. To accomplish this purpose the classical techniques of spatial data analysis (Moran’s I global and local statistics and spatial regimes) and the method of cluster analysis were used. The sources of data were the results of the largest panel research in Poland called “Social Diagnosis”.

During the analysis, it was found that life values are varied in terms of time and space, for Poles the most important value is health, in the last years non-material values (marriage, children, God) become more important and material values (money, work) depreciates, Masuria region is the most characteristic one in terms of different life values then in the rest of districts (values related with personal development are more significant in this region), it may be also noted a difference between west and east of the country (west is more materialistic, east more familiar and spiritual) and the spatial autocorrelation is not high and significant in only some cases (some years, some types of values).

ZRÓŻNICOWANIE WARTOŚCI ŻYCIOWYCH POLAKÓW – UJĘCIE CZASOWO-PRZEKROJOWE

Przeprowadzone badanie dotyczyło zróżnicowania wartości życiowych wyznawanych przez współczesnych Polaków. Analiza została wykonana w ujęciu przestrzennym (podział kraju na gminy) oraz czasowym (lata 2000–2013). Głównym celem opracowania było zweryfikowanie dwóch hipotez, że istnieje zróżnicowanie przestrzenno-czasowe respektowanych wartości, oraz że można w tym zakresie znaleźć pewne prawdopodobieństwa. Do realizacji takiego celu wykorzystano kluczowe techniki analizy danych przestrzennych (globalne i lokalne statystyki Morana I oraz rejony przestrzenne), a także metodę analizy skupień. Źródłem danych były wyniki największego w Polsce badania panelowego, czyli „Diagnozy społecznej”.

W toku analizy okazało się, że wartości życiowe są zróżnicowane przestrzennie i czasowo, dla Polaków najważniejszą wartością jest zdrowie, w ostatnich latach ważniejsze stały się wartości niematerialne (dzieci, przyjaciele, Bóg), a te materialne (pniądzie i praca) traciły na znaczeniu. Jeśli chodzi o wskazanie regionu najbardziej wyróżniającego się na tle innych obszarów kraju to są to Mazury, bardziej niż gdzie indziej liczą się tam bowiem wartości związane z rozwodem osobistym (np. wykształcenie). Ponadto łatwo zauważyć różnicę w rozkładzie wartości między wschodnią a zachodnią Polską. Zachód jest bardziej ukierunkowany materialnie, wschód częściej stawia na wartości rodzinne i duchowe. Autokorelacja przestrzenna nie jest silna i statystycznie istotna tylko w kilku przypadkach (tzn. dla niektórych lat i niektórych wartości życiowych).