Quality of Life and Sustainable Development

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Contents

Streszczenia

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PSYCHIC WELFARE OF POLES DEPENDING ON THEIR EDUCATIONAL LEVEL IN 2003–2011

Abstract: The paper discusses the way Polish people evaluate their psychic welfare depending on their educational level. The first part of the paper specifies and enumerates measure that subjectively estimates the level of ones' welfare based on the respondents' satisfaction with different aspects of their life. In the following sections the paper analyses the relationship between the educational level of Poles and the overall measure of their welfare. The results obtained indicate that higher educational level of individuals corresponds with higher level of psychic welfare. In the analysis additional factors are taken into account. These factors are: professional status, income, and region of living. The analysis based on the database of The Council for Social Mentoring.

Keywords: Quality of life, welfare, education, linear model.

1. Introduction

This paper aims to examine the influence of education on the psychic welfare of Poles. Psychic welfare is defined here as subjectively evaluated degree of happiness. The first part of the paper constructs an index that defines the level of psychic welfare (happiness) on the basis of Polish people's self-evaluated satisfaction with different aspects of their lives. This was realized with the use of the methods of factor analysis and logistic regression. The measure defined with the use of these methods can take the values from the interval [0, 1]. Higher value of the measure stands for higher degree of happiness experienced and is called *the happiness index*. Further in the paper the differences between the mean values of *happiness index* are analysed for the particular groups of Poles differing in their educational level.

Next to education, other aspects possibly influencing the *happiness index* are taken into account. These are: the amount of income, professional status, marital status, region of living. Methods applied for these analyses were most often general linear models (mainly analysis of variance and analysis of covariance). It is important to notice that the *happiness index* defined in such a way is a measure based on subjective impressions of people. On the other hand, aspects analysed in the second part of the paper are objective features. All the analyses were performed with the use

of Statistica 10.0 or MS Excel and basing on data which have been collected since 2000 for the research called *Social Diagnosis* realized by the Council for Social Monitoring [www.diagnoza.com]. All the analyses, except those specially labelled, were performed with the use of data proceeding from the individual research realized in 2011.

According to German philosopher K. Lewin, people live in a world defined by objective characteristics, even though their perception of that world is subjective.[1] This theory is consistent with the idea advocated by W. Ostasiewicz, who describes perception as a psychic phenomenon. The author states that "good or high quality of anything results in a high degree of enjoyment or satisfaction. As a consequence, quality can be measured with the degree of enjoyment or satisfaction" [Ostasiewicz 2004, p. 13]. Similar attitude is presented by R. Gillingham and W. Reece [1980], who define the quality of life as the level of one's satisfaction. N. Bradburn, on the other hand, in one of the first research studies over the quality of life[2], assumes the emotional state of an individual as a measure of the quality of his or her life. In Bradburn's research, this measure was identified with the question: "taking everything into account, what could you say about your life: 'I am very happy, quite happy, or not so happy?'"
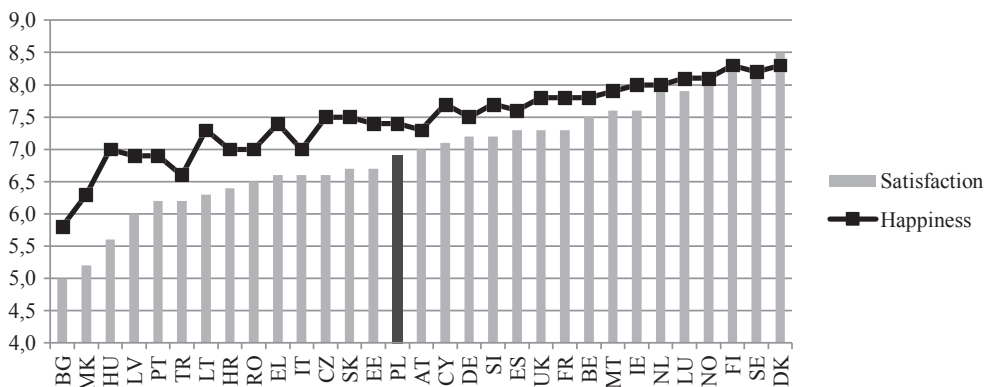
Figure 1. Levels of satisfaction and happiness of the inhabitants of different countries. Scale 1–10

Source: [*Second European*… 2009].

There are many researchers who believe that both the concepts: *the degree of happiness* and *the degree of satisfaction* relate to the quality of life, and as such can be used interchangeably. Still, the European Research on the Quality of Life [http://www.eurofound.europa.eu/publications/htmlfiles/ef0902.htm] used the level of satisfaction and the level of happiness as separate measures which, only when

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[1] *Field theory* proposed by K. Lewin.
[2] Norman M. Bradburn, survey conducted in 1961.

combined, stood for the quality of life. It seems, though, that the values we are talking about are highly correlated (at least at the level of nations). The largest differences between these values have been noticed for countries with lowest levels of happiness/ satisfaction, which is visible in Figure 1 which shows levels of satisfaction and levels of happiness for different nations, using a scale with the range of 1 to 10.

According to J. Rutkowski the quality of life can be represented as a number of needs whose fulfilment makes people happy [Rutkowski 1987]. That is why in this paper psychic welfare will be conceived as the level of one's happiness explained by the level of satisfaction with one's own life.

Up to now different researchers have proposed many ways of identifying the level of satisfaction with one's life. In most of the cases researchers identified certain fields or spheres of life that were later evaluated by an individual. According to R. Kolman, there are six such spheres: the family sphere, the somatic, psychic, professional, environmental and habitation ones. A. Campbell identifies 13 spheres [Campbell 1976]. All of them, yet, are reflected in the spheres proposed by R. Kolman. In the research performed by Central Statistical Office in Poland (CSO) and in the Social Diagnosis the list of spheres has been slightly modified and extended to 16 elements. Yet, their structure and classification, according to Kolman's taxonomy, remained unchanged [Borys 2004, p. 61].

It is worth noticing that the spheres of life chosen to be evaluated are consistent with the opinions of Poles about what makes a happy life. According to the results of Social Diagnosis 2011, over 64% of Poles indicate health as one of the three the most important prerequisites of a happy life. 53.4% indicate marriage, and 47.6% – children. Further on the list there appear: work (30.7%), money (28.2%), and God or Divine Providence (13.3%). Education is indicated only by 5.6% of respondents. Though, looking at the changes over time, education seems to gain significance as it becomes one of the most important factors in the life of Poles.[3]

2. Quality of life as partial satisfactions with its particular aspects – defining the measure indicating psychic welfare level

In the survey performed by the Council for Social Monitoring respondents evaluated on the scale of 1–6 their level of satisfaction with 16 chosen aspects of life: family relationships, financial situation of the family, relationships with friends, health, life achievements, situation in the country, housing conditions, living place, perspectives for the future, sexual life, education, leisure time activities, work, children, marriage, and safety in the living place.

In the original questionnaire value 1 stood for a highly satisfied person and value 6 stood for a highly dissatisfied person. For the sake of the presented research, though, the scale has been inverted, so that a higher value could stand for higher satisfaction. Each of the enumerated partial satisfactions influences the overall life

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[3] All the data come from the report [Czapiński 2012].

satisfaction, and so the psychic (emotional) welfare. That is why the author believes it is valid to define happiness (welfare) with the use of the earlier enumerated indices of partial satisfactions.

This work attempts to construct such an index with the use of statistical techniques – mainly logistic regression. The dependent variable here is a dychotomic variable that states whether a particular respondent evaluates himself or herself as a happy person or not. The predicators are partial satisfactions with different aspects of life. Table 1 presents the matrix of Spearman correlation coefficients for particular aspects of life analysed here.

Table 1. Spearman correlations for satisfaction with particular aspects of life

	Family finance	Life achievements	Prospects for future	Education	Work
Family finance	–	.438	.471	.330	.399
Life achievements	.438	–	.473	.512	.483
Prospects for future	.471	.473	–	.381	.425
Education	.330	.512	.381	–	.429
Work	.399	.483	.425	.429	–

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

Table 2. Factors obtained from PCA

Factor	Partial satisfactions	Alfa-Cronbach coefficient
Social status	financial situation of one's own family	0.811
	life achievements	
	perspectives for the future	
	education	
	leisure time activities	
	work	
Personal life	family relationships	0.704
	sexual life	
	children	
	marriage	
Environmental conditions	housing conditions	0.65
	living place	
	safety of the living place	

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

Table 1 shows that many aspects are highly correlated (e.g. the correlation between the satisfaction with life achievements and with education equals 0.512). That is why not all of them can be included in the model. In order to avoid collinearity but at

the same time not lose important information, the author decided to employ factor analysis. These aspects of life that showed low correlations with all the others were treated as separate dimensions and were not included in factor analysis. Due to the fact that the variables mentioned are not normally distributed, the author decided to apply the method of principal components analysis (PCA). As a result three factors have been worked out that describe different dimensions: personal life, social status, and environmental conditions. Table 2 shows which of the partial satisfactions are included in particular factors. Column three presents the values of Alfa-Cronbach reliability coefficients calculated for each of the factors. This coefficient states to what extent certain group of variables (in this case the group made of partial variables that constitute a particular factor) describes one hidden factor. Each of the values is higher than 0.6. None of the partial satisfactions reduces the value of reliability coefficient. It is justified, then, to establish one factor for all the partial satisfactions which make it. The values of these factors were calculated as arithmetic means of partial satisfactions.

Some of the variables were still left behind the factors constructed in such a way. These were the variables which in the beginning were not included in the factor analysis or which were excluded from it later (because of, for example, low communality. The variables left behind were: health satisfaction and the satisfactions concerning relationships with friends and situation in one's own country. In further part of the paper these variables will constitute separate measures.

Such defined variables (factors built and partial satisfactions that constitute separate measures) were subjected to logistic regression model

$$\log(\frac{p_i}{1-p_i}) = \beta_0 + \sum_{j=1}^{16} \beta_j x_{ij},$$

where:

p_i – probability that the i-th respondent assesses himself/herself as a happy person; β_j – parameters of the model for the j-th independent variable; x_{ij} – j-th independent variable (partial satisfaction level or factor) for the i-th respondent.

Estimations of parameters thus obtained are shown in Table 3.

Table 3. Estimation of parameters of the logistic regression model with *happiness* as dependent variable

Parameters	β	Standard error	Wald's statistic	*p*-value	Exp(*β*)
Constant	−7.862	.202	1521.366	.000	.000
Personal life	.636	.036	318.856	.000	1.888
Social position	1.026	.040	653.960	.000	2.789
Health	.346	.022	257.679	.000	1.414
Situation in Poland	.072	.025	8.413	.004	1.075

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

The variables of *environmental conditions* and *relationships with friends* appeared statistically not significant. This may result from the fact that the variable *environmental conditions* is correlated with the variable *social status* (Pearson correlation at the level of 0.46), that is why in the model it appeared to be redundant. *Satisfaction with the relationship with friends* seems to be underestimated by Poles in their evaluation of happiness [Czapiński 2012], in spite of the fact that every tenth Pole mentions friends as one of the three most essential prerequisites of a happy life.

The Negelkerke's R^2 measure, which is a generalization of the determination coefficient used for linear models, equals 0.412, which means that 41% of variation can be explained with the use of these variables. If we set the cut off point at the level of 0.5 (which means that if $p > =0.5$ we consider a person to believe himself or herself happy), the model correctly classifies 79% of the cases. The field below the ROC curve, which shows the relationships between sensitivity and specificity by different cut point levels, equals 0.83.

The formula of regression built on the base of logistic regression model looks as follows:

$$H = \ln(\frac{p}{1-p}) = -7.862 + 1.026 \cdot soc + 0.636 \cdot per + 0.346 \cdot hea + 0.072 \cdot sit,$$

where: p – probability that the respondent assesses himself/herself as a happy person; *soc* – social position factor; *per* – personal life factor; *hea* – satisfaction with health; *sit* – satisfaction with the situation in Poland.

Thus obtained estimations of model parameters were considered as the weights of their respective variables. Final synthetic measure defining respondent's level of happiness was built as a normalized value of the logit function H for the model obtained and will be called *the happiness index* (HPI):

$$HPI(\underline{z}) = \frac{H - \min(H)}{\max(H) - \min(H)}$$

where $\underline{z} = (soc, per, hea, sit)$ is 4-dimensional vector of variables which were included in the model. Such defined index can take the values from the interval [0, 1] and is an increasing function of all its arguments. In the further part of the paper it will be used to examine the influence of education on the way Poles evaluate their happiness.

3. Education level and income as influencing the HPI

The next step of the analysis performed concerns respondent's education and its potential influence on his or her happiness level expressed in the form of *happiness index* defined earlier. Figure 2 presents the distribution of happy and unhappy respondents by their education level. As can be read from the figure, the percentage of happy people grows together with the level of education they represent.
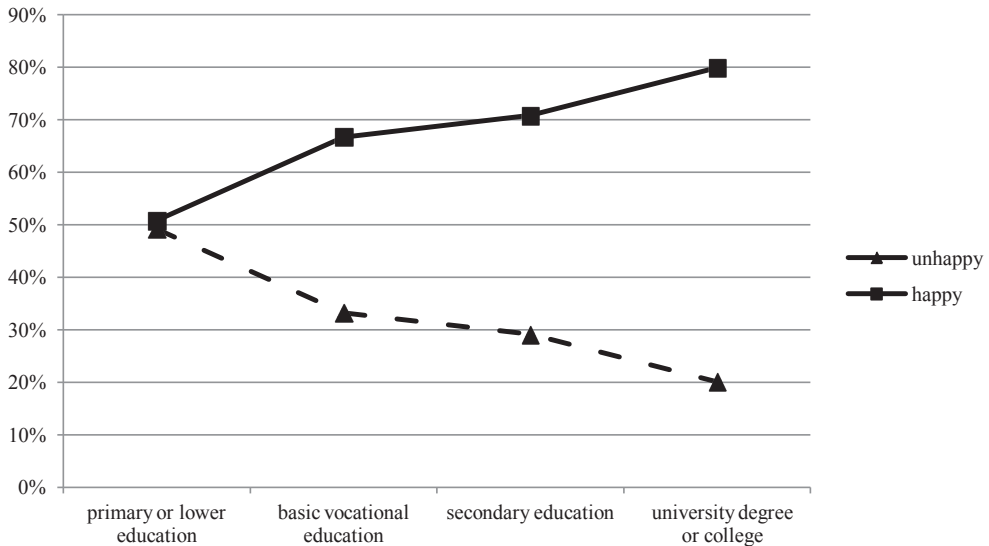
Figure 2. Happy and unhappy respondents presented with reference to their education level

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

One-way analysis of variance was used in order to verify the hypothesis concerning the lack of influence of education on mean value of HPI. The results are presented in Table 4.

As the results show, the HPI is different for people with different education level. In the post-hoc analysis which of the groups differ from others, Scheffe's test has been used. The test showed that all the differences between education levels are statistically significant.

Table 4. ANOVA – Happiness index by education level

ANOVA	*SS*	*df*	*MS*	*F*	*p*
Intercept	8998.554	1	8998.554	473876.0	0.00
Education level	36.340	2	12.113	637.9	0.00
Error	482.992	25435	0.019		

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

This situation was presented in Figure 3, showing the HPI means in each of the groups and 95% confidence intervals for the mean values. None of the intervals overlap. It is also visible that the HPI is much lower in the groups of people with primary or lower education than in other groups. The most similar groups, on the other hand, consist of people with basic vocational education and secondary education.
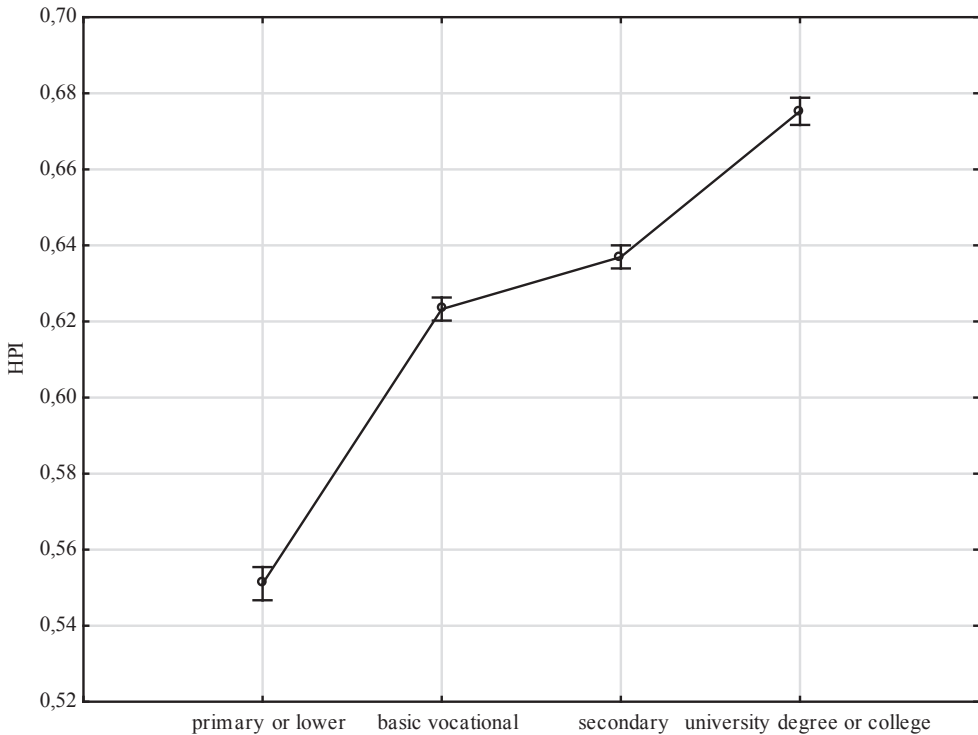
Figure 3. Mean level of happiness depending on education and 95% confidence intervals
for the mean values

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

Mean HPI for people with primary or lower education is 0.55, for people with basic vocational or grammar school and for secondary education equals 0.620 and 0.635, respectively. The highest HPI is attributed to people with higher education and equals 0.674.

It is important to notice that respondent's education level influences to a large degree his or her income (Spearman correlation between the years of study and the logarithm of income is 0.436). It can be assumed, thus, that the differences in HPI are not entirely a result of direct influence of education, but rather of income which depends on education (Spearman correlation between HPI and the logarithm of income is 0.31, and between HPI and the years of study – 0.262). So, in order to investigate the influence of education on HPI with the exclusion of income, the General Linear Model for unequal slope coefficients has been used. Results are presented in Table 5.

Table 5. General Linear Model – the influence of income on HPI with the exclusion of income

Item	SS	df	MS	F	p
Intercept	9.7995	1	9.799503	546.9945	0.000000
Interaction between education and ln(income)	13.3576	4	3.339405	186.4009	0.000000
Education	0.2760	3	0.091994	5.1350	0.001506
Error	335.1751	18709	0.017915		

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

As can be seen in the results, even if the influence of income is eliminated, education still differentiates respondents' happiness level. Figure 4 presents the means and the expected mean HPIs when the influence of income is eliminated (calculated for the mean value of the logarithm of income) by respondents' educational level.
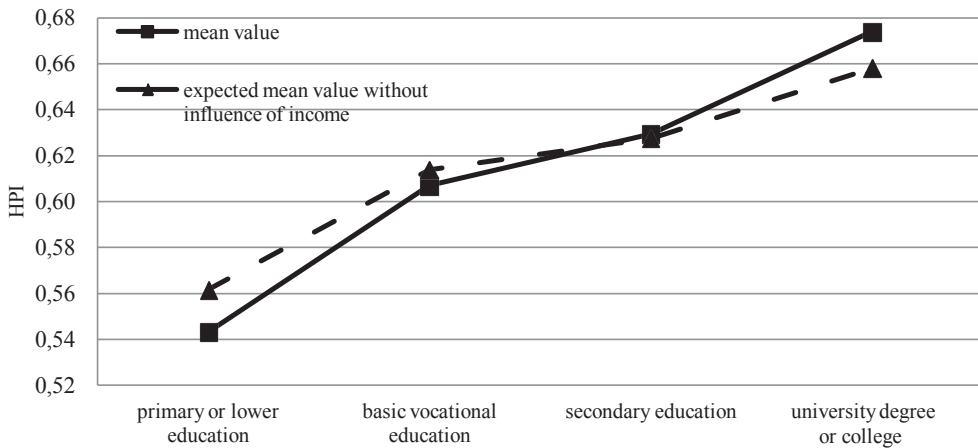
Figure 4. Mean HPI depending on education level

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

The results show that the amount of income influences HPI of people with particular education levels in the following way:
– in case of people with primary or lower education it influences negatively the *happiness index*, which means that as the people earn little, they are not so happy as they could have been, had they earned more,
– in case of people with higher or college education it influences the *happiness index* positively, which means that earning more than others makes them more happy.

This points to the fact that if we eliminated the influence of income, people with lower or primary education would consider themselves happy more often,

and people with college or higher education less often. Still, education remains an important factor influencing the level of happiness, even if the influence of income is eliminated.

4. The influence of education and living region on HPI

It has been established so far that the *happiness index* is correlated with the amount of income. Yet, as the amounts of income differ in different regions of Poland, the *happiness indices* in these regions, as it seems, may also differ. This is because happiness can be influenced not only by income, but also by the general economic situation of particular respondents' living regions.

The economic situation of regions has been evaluated with the use of two indicators: average gross salary and unemployment rate. The regions analysed have been combined in four clusters according to the *k*-means classification method based on the indicators mentioned. Table 6 below presents the results of thus performed classification. The Mazowieckie administrative region, characterized with the lowest unemployment rate and much higher salaries than elsewhere, makes a separate cluster. (None other administrative regions is similar to this one.) Cluster 2 consists of administrative regions with relatively high unemployment rate and low salaries. Cluster 3 is made of those regions where gross salary equals around 3300 PLN. Cluster 4 are administrative areas with the unemployment rate at the level of 10–13% and gross salaries of around 3500–3700 PLN.

Table 6. Administrative regions group in four clusters

Administrative region	Unemployment rate	Average gross salary	Cluster
Mazowieckie	9.7	4 516.23	1
Kujawsko-pomorskie	17.0	3 141.02	2
Lubuskie	15.5	3 140.74	
Podkarpackie	15.4	3 074.48	
Świętokrzyskie	15.2	3 196.60	
Warmińsko-mazurskie	20.0	3 052.28	
Lubelskie	13.1	3 272.35	3
Łódzkie	12.2	3 316.60	
Opolskie	13.6	3 335.29	
Podlaskie	13.8	3 220.88	
Wielkopolskie	9.2	3 353.16	
Zachodniopomorskie	17.8	3 341.55	
Dolnośląskie	13.1	3 584.44	4
Małopolskie	10.4	3 464.41	
Pomorskie	12.3	3 646.08	
Śląskie	10.0	3 726.95	

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

Clusters thus formed have been subjected to One-Way Anova in order to check whether the HPI is influenced by respondent's living region. The results confirmed that *happiness indices* differ in different regions of the country. In order to check which pairs of the regions differ significantly, a post-hoc analysis with the use of LSD and Scheffe's test was performed. According to the LSD results only the second and third, and the second and fourth clusters do not differ as far as the mean level of *happiness index* is considered. Though, the Scheffe's test shows the differences to be significant between the pairs of clusters: (1,2), (1,4), (3,4). This has been shown on Figure 5.
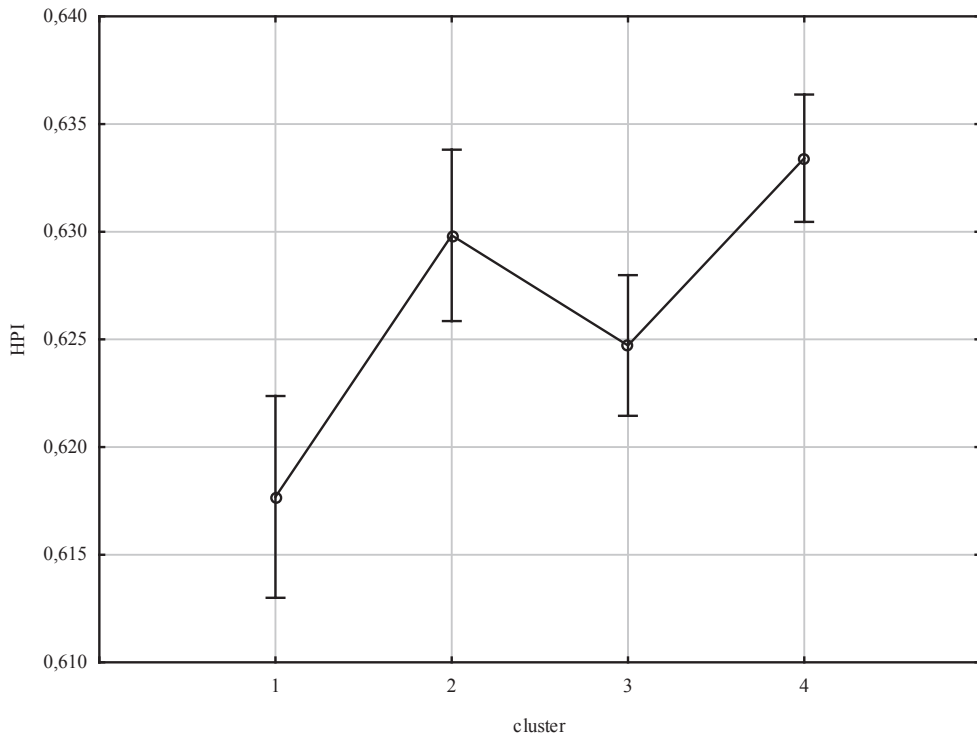

Figure 5. Mean level of HPI by clusters of administrative areas and 95% confidence intervals

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

The situation presented above may result from the influence of an interfering variable, which is the amount of respondent's income. Perhaps people earning less in a poorer region are more happy than they would have been had they lived elsewhere. That is why the next step taken was the Analysis of Covariance (ANCOVA), which makes it possible to eliminate the influence of income on HPI in particular regions. The results of this analysis show that the mean value of happiness in cluster 1 differs in a statistically significant way from all the other clusters. Mean values of HPI in

clusters 3 and 4 are similar and have values between 0.619 and 0.622. Mean value of HPI in cluster 2 is the highest of all and equals 0.627, which makes a significant difference if we compare it to clusters 1 and 2. Figure 6 presents the expected mean values of *happiness index* when including and excluding the influence of income.

As the graph shows, if all the respondents earned the same, happiness index would be lower in clusters 1 and 4 (the fall in cluster 1 from 0.609 to 0.6011, and in cluster 4 from 0.625 to 0.622) and higher in clusters 2 and 3 (the rise in cluster 2 would be from 0.62 to 0.627, and in cluster 3 from 0.615 to 0.619). If it were not for the much higher salaries of respondents in cluster 1, the difference between them and all the other respondents would be even larger as far as happiness index is concerned. Quite contrary, respondents from cluster 2 would have been most happy of all, were it not for the fact that their salaries are much lower than elsewhere.
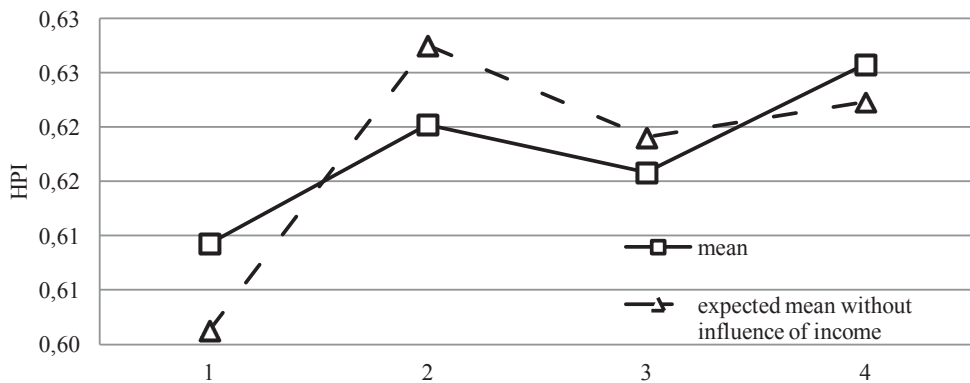

Figure 6. Mean level of HPI and expected mean level of HPI when excluding the influence of income

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

5. How the interaction of education level and living region influences happiness index

In order to verify the influence of the interaction between education level and living region on *happiness index*, the Two-Way ANOVA was performed. The results obtained are presented in Figure 7. The analysis performed shows that the interaction between these variables influences respondent's happiness level. Still, a detailed post-hoc analysis and the Scheffe's test show that for people with primary or lower education the living region is of no importance. Their level of happiness stays the same does not matter where they live.
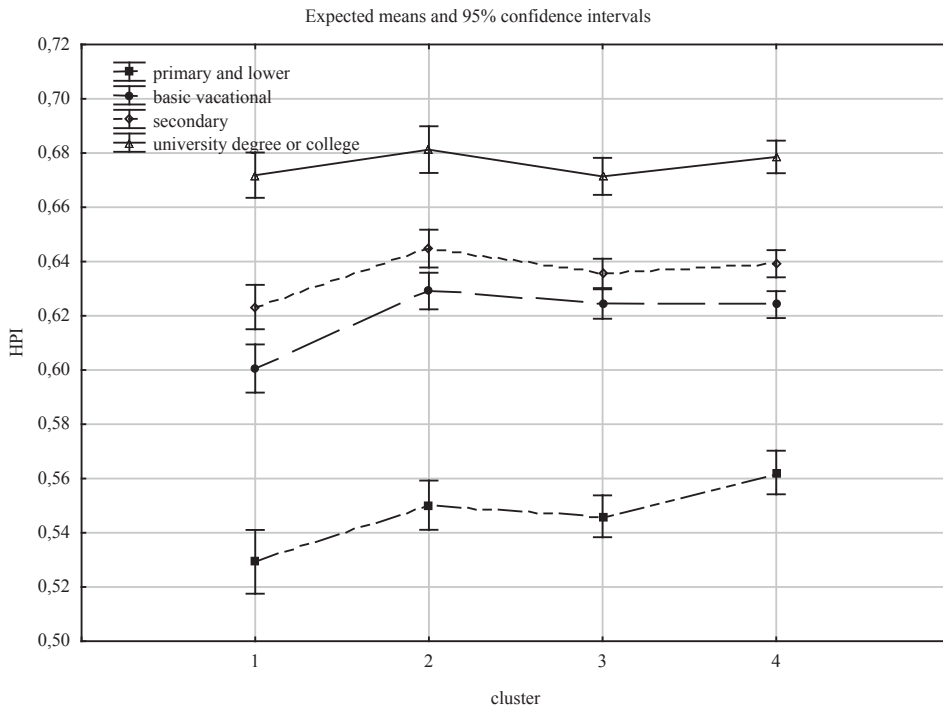
Figure 7. Influence of the interaction between education level and living place on happiness level

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

People who graduated from vocational and grammar schools are least happy in cluster 1. In the other clusters the differences are statistically not significant. On the other hand, respondents with secondary or higher education are equally happy wherever they live. So the interaction between living region and education level is statistically significant only for people with vocational education.

6. The influence of professional status on happiness index

It has been shown that happiness level differs according to respondent's education level and his or her living region. What also seems probable, at this point, is that respondent's professional status, which correlates with his or her education level, may also be of importance. For the sake of this analysis again the procedure of ANOVA has been used. The analysis thus performed allowed to compare the mean levels of happiness in different groups of respondents. Figure 8 presents the results. As Scheffe's tests show, the differences between all the groups are statistically significant. As can also be read from the graph, it is possible to form 4 separate groups of professions which are very similar according to their level of HPI.
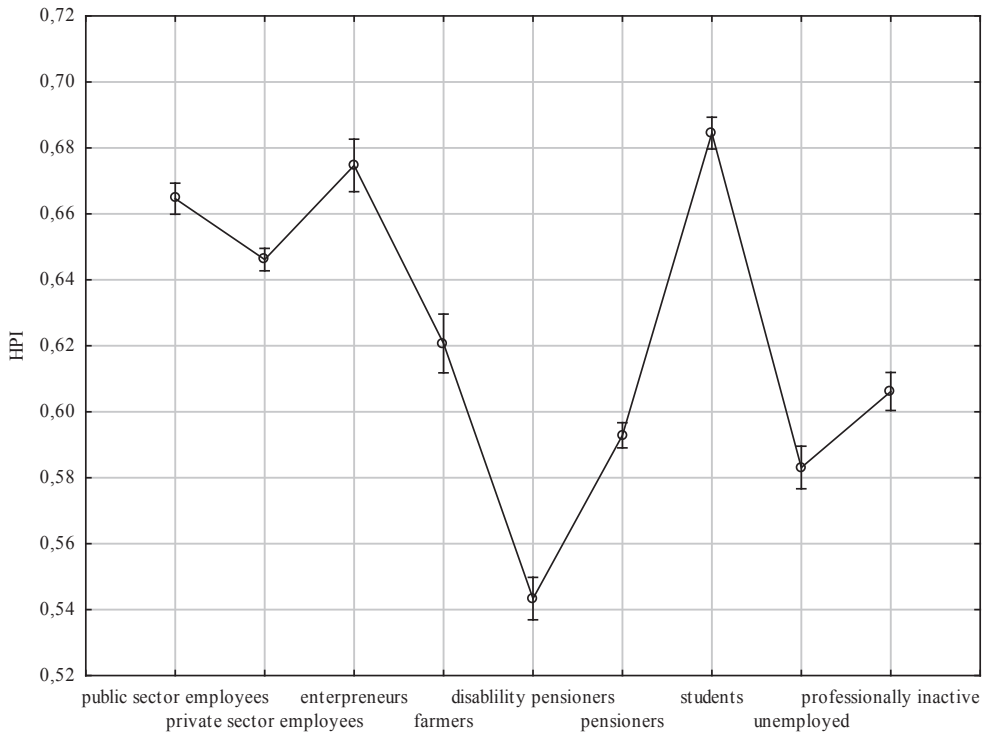
Figure 8. Mean level of happiness in groups of particular professional status and 95% confidence intervals

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

Least happy are disability pensioners (group 1), then pensioners, unemployed and professionally inactive (group 2), and subsequently farmers (group 3). On the other hand, private and public sector employees, entrepreneurs and students are the happiest group of respondents (group 4).

7. Change of the *happiness index* in the years 2003–2011 for particular education levels

In the previous sections it was shown that the *happiness index* of Poles is influenced by such factors as: education level, income, living region, and professional status. All these factors change in time. Recently more and more young people decide to undertake university studies as they believe this will help them find more interesting and better paid job. As a consequence, the high education enrolment ratio in Polish society keeps growing. According to data provided by CSO, the high education enrolment ratio (ratio of people aged 19–24 who continue to study at the level of

higher education) in the academic year 2000/2001 equalled 30.6%, and in year 2010/2011 it grew to the level of 40.8%. The consequence is that graduating from a school of higher education is no guarantee of finding a well-paid job, or finding any job at all. The competition on the labour market intensifies. This makes people with high expectations accept low-paying job offers, which consequently brings dissatisfaction and reduces their level of happiness. What is more, the number of unemployed people with higher education grows.

In 2000 there were only 2.5% of people with higher education among the unemployed. In 2008, when after the period of transformation the unemployment was lowest in Poland, this coefficient equalled 8.5%. Yet at the end of 2011 people graduating from schools of higher education constituted over 11.3% of all the registered unemployed.

The period analysed witnessed four such rises of unemployment. During the final phase of this period every ninth unemployed was a person with academic degree. This situation gets reflected in the mean level of *happiness index* represented by respondents with different education level, which is visible in Figure 9. Least educated people in the period analysed represented the lowest mean level of HPI.
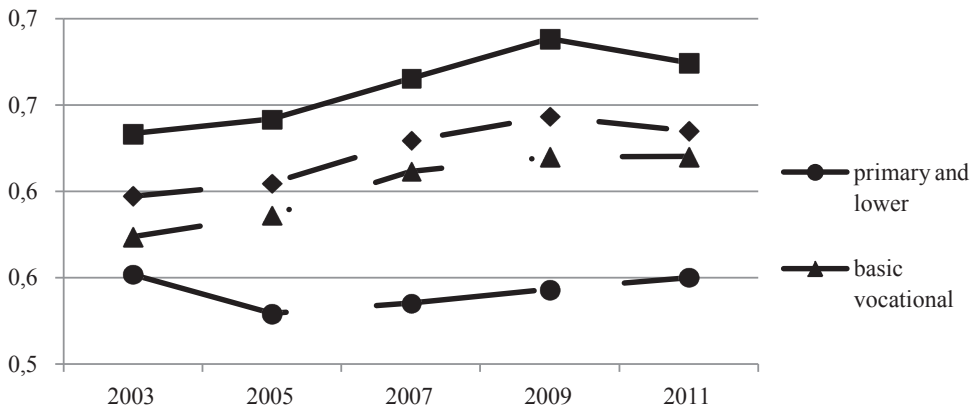
Figure 9. Average happiness index for every education level in 2003-2011

Source: own calculations based on [Czapiński, Panek (Eds.) 2011].

In this group of respondents changes are least visible. In all the other groups the level of HPI was growing dynamically in the years of prosperity (2003–2009). Yet, the largest rise in happiness was observed among best educated people. It was a period of dynamic development and numerous investments made after the access to the European Union. It is also important to notice that, according to the report "5 years of Poland in the European Union" [*5 lat Polski…* 2009] it were people with higher education who were most enthusiastic about Poland joining the European Union.

In the last part of the period described, namely in the years 2009–2011, the level of happiness among people with vocational, secondary and academic education is visibly lower. Only the least educated were in 2011 more happy than in 2009. The largest fall of happiness level took place in the group with higher education, which can be related to several issues.

The first issue to consider is the economic crisis that started in Poland in that period. The consequences were: larger unemployment, lack of work stability, dissatisfaction with the situation in the country. Disappointment may also play a role here as people's investment in education did not pay back, as had been expected, with better work conditions. All these issues influence certainly respondent's satisfaction with situation in the country, which is one of the factors building HPI.

8. Conclusions

The work proposes a method of estimating psychic welfare which was defined as the level of happiness and satisfaction with different aspects of one's own life. The paper examines the way in which education influences the level of such defined psychic welfare, and reaches the following conclusions:

1. The level of welfare grows together with education level.
2. The amount of income has a positive influence on welfare.
3. The difference in welfare level for particular groups of education is statistically significant even if the influence of income is eliminated.
4. The level of welfare differs according to the economic situation of respondents' living region.
5. The Mazowieckie administrative region is characterized with lowest welfare level in spite of highest income and lowest unemployment rate.
6. Highest level of welfare can be observed in the regions of: Dolnośląskie, Małopolskie, Śląskie and Pomorskie. This can be explained with the amount of income, which in these regions is the highest (with the exception of the Mazowieckie area).
7. If the influence of income is excluded, the highest level of welfare can be observed in: Kujawsko-Pomorskie, Lubuskie, Podkarpackie, Świętokrzyskie, Warmińsko-Mazurskie.
8. There is no significant interaction between education level and living region which could influence welfare level.
9. The year 2011 witnessed a sudden drop in the level of welfare, especially visible in the group of highly educated people.

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WPŁYW WYKSZTAŁCENIA NA PSYCHICZNY DOBROSTAN POLAKÓW W LATACH 2003–2011

Streszczenie: W niniejszej pracy podjęty został temat dobrostanu psychicznego Polaków w zależności od poziomu wykształcenia danej osoby. W pierwszej części zdefiniowana została miara określająca poziom dobrostanu psychicznego respondenta w oparciu o cząstkowe satysfakcje z poszczególnych aspektów jego życia. Następnie analizowany jest związek między poziomem wykształcenia mieszkańców Polski a wyznaczonym poziomem dobrostanu. Otrzymane wyniki wskazują na wzrost poziomu dobrostanu wraz ze wzrostem poziomu wykształcenia respondenta. W analizie uwzględniane są dodatkowe czynniki mogące mieć istotny wpływ na samoocenę poziomu dobrostanu respondenta. Są to: status zawodowy, dochód, region zamieszkania. Obliczenia wykonano w oparciu o zintegrowaną bazę danych Rady Monitoringu Społecznego, która począwszy od 2000 r. przeprowadza panelowe badania warunków i jakości życia Polaków, zwane Diagnozą Społeczną.

Słowa kluczowe: jakość życia, dobrostan, wykształcenie, model liniowy.