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# Subjective Poverty and Its Relation to Objective Poverty Concepts in Hungary

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**Abstract** The paper analyzes subjective poverty in Hungary and compares it to the objective poverty concepts. Subjective poverty is defined by examining who people consider to be poor. Based on the Easterlin paradox, the initial hypothesis states that subjective and absolute poverty concepts are highly correlated. Taking into account that Hungary is a developed country, subjective well-being is supposed to be associated not only with absolute, but also with relative deprivation. The methods of systematic data collection are used to collect data about the belief of the population. The paper concludes that low income level, Roma descent, entitlement to social supports and unemployment are the items thought to be most related to poverty by the informants. It proves that subjective poverty is a multidimensional concept. It also concludes that absolute and relative poverty thresholds coincide with the subjective one. It implies that increasing the absolute income level of individuals may not be enough to improve their subjective wellbeing as they are also concerned with their relative income position.

**Keywords** Poverty · Systematic data collection · Hungary · Subjective poverty · Objective poverty

## 1 Introduction

Happiness, a part of subjective well-being, is considered to be the ultimate goal of human life. Happiness research is relevant for economists for many reasons. It can inform economic policy decisions to make it possible to reach a Pareto-improving proposal (actions that do not entail costs for other individuals); it highlights the importance of institutional conditions such as the quality of governance, the size of social capital or the rule of law on subjective well-being, and it can help understanding the formation of subjective well-being (Frey and Stutzer 2002) and peoples' values, behavior and belief (Samman 2007).

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Subjective well-being can be reflected by the so-called subjective poverty concept. This concept was elaborated by two research groups. Van Praag (1971) worked out the Income Evaluation Question (IEQ) to collect data on subjective well-being. Deleeck and his stuff defined CSP (Subjective Poverty Line). Subjective poverty concept can be used in two ways. On the one hand, poverty can be defined by examining who people consider to be poor. It can also be defined by collecting peoples' beliefs about their own position in a system of inequalities (Spéder 2002).

Beyond the subjective poverty line, two main conceptions of poverty are distinguished in the poverty literature (refer to Table 1). Absolute concepts of poverty assume that minimum material needs can be defined regardless of space and time. Those who are not able to satisfy these needs are considered to be poor. The relative conceptions define poverty as being below some relative poverty threshold. People can be considered to be poor if they fall behind some average wealth level of the society to a certain extent (for example 50 or 60% of mean or median income). The other approach using the relative poverty concept defines poverty line as an income level below which a certain part (one tenth or one fifth) of the population lives (Hegedűs and Monostori 2005).

Neither absolute, nor relative poverty measures introduce any explicit role for non-monetary components and thus they are not based on happiness. It is therefore possible that absolute and relative poverty measures are significantly different from subjective poverty assessment.

Many studies have focused on the correlation between subjective indicators and material well-being. There are two main approaches in these studies: the questionnaire-experimental approach and the subjective approach (Castilla 2009). Results from the questionnaire-experimental approach suggest that relative income position is as important as the absolute one (Carlsson et al. 2007; Johansson-Stenman and Martinsson 2006), while studies using subjective approach conclude that relative poverty is usually more important (Easterlin 1995; Clark et al. 2008).

This paper examines subjective poverty and the discrepancies between subjective and objective poverty assessment. Behavioral economics takes the influence of social context into account in people's assessment about their well-being. It implies that people prefer not only to have a high income level, but also to have more than others (Carlsson et al. 2007). If relative income position has any effect on subjective poverty assessments, it would mean that the improvement of subjective well being requires reducing inequality in the society. If, however, the poor are too concerned with their everyday survival to take into consideration their relative position, policies focusing on the eradication of absolute poverty can be justified. It is crucially important to know the relationship between subjective and objective poverty assessments because even the best designed policy intervention can fail

**Table 1** Concepts of poverty

| Concept of poverty | Income | Living conditions |
|---|---|---|
| Absolute | Subsistence level | Not processing certain items |
| | Regional minimum | Being in crisis |
| Relative | Living below the 50 or 60 percent of mean or median income | Deprivation index |
| | Lower decile, quintile | |
| Subjective | Subjective poverty | Minimal living conditions |

*Source* own compilation based on Spéder (2002, p 53)

because of taking into consideration social context in poverty assessment (Fafchamps and Shilpi 2008).

Relative income concerns may help understanding many economic phenomena (Carlsson et al. 2007), like aggregate consumption and saving patterns (Basmann et al. 1988), wage formation (Agell and Lundborg 2003), labor supply (Neumark and Postlewait 1998) or the over-consumption of goods consumed primarily to demonstrate wealth and success (Carlsson et al. 2007).

The so called Easterlin paradox states that wealthier people tend to be happier than the poorer ones, but above a certain level of per capita average income (somewhere between US$ 10,000 and 20,000) there is no relationship between average income and subjective well-being (Easterlin 1995). Ravallion and Lokshin (2002) explored also the lack of this relationship for Russia. Most of the Russian adults who feel that they are poor are not classified as such in official statistics and most of the people who are classified to be poor do not feel that they are. Some studies about developed countries state that subjective well-being of individuals depends not only on their own standard of living, but also on their relative income and relative deprivation. It means that higher earnings of the others are associated with lower level of well-being, controlling for the individual's own income (Layard 2002; Luttmer 2005; Easterlin 1995; Frey and Stutzer 2002). A study on Nepal and Malawi, however, proved that relative position of the individuals has an effect on the subjective perception of poverty only among upper income households. The poor care only about absolute deprivation (Fafchamps and Shilpi 2008).

This paper differs from the existing literature in several aspects. It uses the methods of systematic data collection to get information about subjective well-being. This systematic collection of data can improve the quality of data concerning subjective well-being. As happiness research focuses primarily on developed countries and less attention has been paid on transition countries (Frey and Stutzer 2002), this paper focuses on a part of Hungary, namely Borsod-Abaúj-Zemplén County. This is one of the poorest counties in Hungary. It has faced severe economic and social challenges since 1990. In spite of its natural and environmental potentials, the performance of the region is very poor both in terms of economic and social progress. Currently real struggle has been fought for economic competitiveness and for a better quality of life.

This study aims at comparing objective poverty concepts with subjective well-being. The paper addresses the following research questions: What are the items most related to poverty, according to the members of the population? If there are any ambiguities, what is the exact meaning of these items? How is subjective well-being defined in this way related to the objective concepts of poverty?

In 2007, when data collection was carried out, the per capita average income in Hungary was US$ 7453. Thus, based on the Easterlin paradox, the initial hypothesis states that wealthier people are happier than the poor ones, that is subjective and absolute poverty concepts are highly correlated. Taking into account that Hungary is a developed country, subjective well-being is supposed to be associated not only with absolute, but also with relative deprivation (Fafchamps and Shilpi 2008).

## 2 Methodology

The focus is first on defining subjective poverty. Using qualitative research methods, the items most related to poverty and the exact meaning of these items can be determined. After defining these components, they can be compared to the objective poverty concepts.

I test the hypothesis about objective and subjective poverty assessments by comparing the subjective poverty line found from the data collection to the absolute and relative poverty thresholds as defined by Spéder (2002).

Items related to poverty can be found using qualitative research methods. First, a list of items related to poverty is elicited from informants, and then they are asked to rank these items to find the ones most related to poverty. As ranking a large number of items could be difficult and could take a lot of time, special methods are used to simplify the task. The method of the analysis is thus systematic data collection, developed in the 1980s by the anthropologist, Susan C. Weller, and the mathematician, A. Kimball Romney in the United States. This method helps researchers in the social sciences collect better interview or questionnaire data. The goal of social sciences, that is the better understanding of experimental and observational data, requires careful analysis of data. Increased understanding requires systematic observation, classification, analysis and evaluation. Structured interviewing formats help to reach this goal (Weller and Romney 1988).

The qualitative research method of systematic interviewing–where each informant is asked the same set of questions–diminishes the sample size required in social science research in a revolutionary way while the reliability of the results is still as high as in case of traditional techniques. This is possible by taking into consideration cultural competence of the population in defining the sample size.

Consensus theory is used when the researcher does not know what the answers are or what they should be and, instead, tries to discover the "culturally correct" responses to the questions. This theory helps to determine the number of informants necessary to get reliable answers in cases when the answers to the questions are not known ahead of time. It gives the possibility to measure the cultural competence of informants (the probability that the informant knows the answer to a given question) and it allows to reconstruct the "culturally relevant" answers to a specific question (Romney et al. 1986). It is assumed that the correspondence between the answers of any two informants is a function of the extent to which each is correlated with the truth, for example with the culturally correct answers (Nunally 1978). Cultural competence is the result of the socialization process, which refers to the incorporation of social effect and beliefs to the individual's behavior and personality (Vajda 1999). Roberts (1964) states that information is stored in the minds of its members and in artefacts in any culture. This study focuses on the part of the culture that is stored in the minds of its members.

According to consensus theory, the number of informants needed depends on the average level of competence, the confidence level and a minimum rate of questions we would like to classify correctly (Weller and Romney 1988). Consensus theory can applied only when the average level of competence is high enough, that is it is at least 0.5 (Weller 2007).

The first step in any study is to get a clear understanding and boundaries of what is being studied. To do this, informants have to be asked to list the items belonging to the domain of interest. Free listing is a good way to ensure that the domain and the items are culturally relevant. The most important use of free listing is to ensure that the researcher is dealing with relevant items and to find the boundaries of the domain (Weller and Romney 1988). In this study, free listing was used to get a list of items for further research, and to obtain understanding on what people think of poverty. The sample size necessary for free listing can be determined by taking into account the amount of agreement in the responses of the informants, but the minimum sample is about thirty people (Weller 2007). Stability in order was found at around 25 informants, so a sample size of 30 was assumed to be adequate. Informants were chosen randomly from some predetermined parts of

Borsod-Abaúj-Zemplén County to ensure that people with low income level as well as people with high income level are represented in the sample. A typically poor and a typical wealthy quarter were selected and ten informants were asked out of each quarter. Moreover, a third part of the county was also chosen as a medium income district out of which the last ten informants were chosen. Out of the chosen districts of the county, informants were chosen randomly. Starting from the biggest supermarket in the given community/quarter, a household was chosen by walking using random numbers. After arriving at a household, the actual informant was the person whose birthday would be the next in that given household. The list of poverty-related items was elicited by asking the following questions: 'Who do you consider to be poor in general?', 'Do you know poor people?', 'Why do you think they are poor?'. Based on their answers, further questions were asked if necessary.

Free listing elicited 32 items. So people believe that many factors can lead to poverty and can be associated with it. Out of the 32 items, 21 were chosen for further research taking into consideration the purpose of the study, the number and frequency of the items elicited in the free listing and the type of formal data collection format to be used (de Munck and Sobo 1998). The selected items for further research to determine to what extent the items are related to poverty can be seen in Table 2.

On the basis of this list, the sample size can be defined based on consensus theory described above. Reliability theory from psychology (Nunally 1978) can also be applied to individuals to obtain an index of individual reliability (Weller 1984). Competency is equivalent to the square root of the average intercorrelation among informants (Weller and Romney 1988) for interval-ratio variables. Boster (1983) estimated competency for dichotomous variables (Weller 1984). He defined competency as the average proportion of matches across individuals (Boster 1983).

In this case free listing can be regarded as a list of dichotomous variables. In case of low income level, for example, results of free listing can be considered to be the dichotomous answers (1 means yes and 0 means no) to the question 'Has the given informant mentioned low income level as a factor related to poverty'. This makes it possible to determine the proportion of matches across each pair of individuals.

The difficulty of this method is to differentiate strong beliefs and answers that not indicate any cultural preferences and are their variation is due to chance (Weller 2007). In the case of dichotomous variables, a binomial test can be used to identify questions that indicate a significant deviation from chance (Weller 2007). An assumption of the test is that the product of the probability of an outcome ($p$) and the sample size ($n$) is at least ten in the case of both outcomes, that is

**Table 2** Items selected for further research

| | | |
|---|---|---|
| Alcoholism | Unemployment | Low level of comfort |
| Smoking | Retirement | Lack of family support |
| Single (as a marital status) | Entitlement to public aid | Unfavorable mentality |
| Illness | Rural life | Single parent |
| Life in lodgings | Large family | Unfavorable occupation |
| Child benefit | Old age | Early founding of family |
| Roma descent | Low educational level | Unfavorable workplace |

*Source* own compilation

$$p \cdot n > 10 \tag{1}$$

$$q \cdot n > 10 \tag{2}$$

where $q = 1 - p$.

As in the case of free listing I examine if the answers differ from 0.5 significantly, ($H_0$: $P = 0.5$; $H_1$: $P \neq 0.5$), the value of $p = 0.5$. As sample size is equal to 30,

$$p \cdot n = 0.5 \cdot 30 = 15 > 10 \tag{3}$$

Therefore the assumption is met and $z$ test can be applied to test the hypothesis. The appropriate $z$ test is the following:

$$z = \frac{\frac{X}{n} - p}{\sqrt{\frac{p \cdot q}{n}}} \tag{4}$$

where $\frac{X}{n}$ is the rate of the given outcome in the sample. Values of $z$ and the decision about the research hypothesis can be found in Table 3. The critical values are $-1.96$ and 1.96 at the 0.05 level. Out of the 32 variables, ten variables show that informants do not have a strong belief, so these variables are skipped in defining the average competence.

The methodology of Boster (1983) is used to determine the average competence of the informants, that is their reliability. To do so, I determine the proportion of matches across each pair of individuals. These values can be found in Table 4. The arithmetic mean of these values gives the average proportion of matches across individuals. Its value is 0.747. As it exceeds 0.5, consensus theory can be applied to define sample size.

A further assumption of consensus theory is that the answers of the individuals are independent of each other (Weller 2007). It implies that informants have to be asked separately, not allowing them to discuss their responses before the interviews. In free listing, I asked the informants individually, so they could not discuss their responses before answering. The last assumption of the model is that each question deals with the same field of interest (Weller 2007). As all of my questions are about poverty, this assumption is also met during the research.

The average level of competence is nearly 0.7. As at least 99% of the questions should be classified correctly at the 0.99 confidence level, the reference to Table 5 shows the number 13 as the sample size.

Informants were then selected using the method of multistage cluster sampling with stratification (Maxfield and Babbie 2009). The county has three different groups of settlements: town of county rank, other towns and communities. The number of informants to be selected from each category of settlements was determined on the basis of the ratio of the population in these three categories. Three informants from Miskolc (the only town of county rank), four from other towns and six from communities were selected (refer to Table 6). In the next step, one town out of "other towns" and two communities were chosen using simple random sampling. The list of all settlements is available from census. "Kazincbarcika" as town, and "Szirmabesenyő" and "Arnót" as comminities were selected using a random number generator. In the cases of Miskolc and Kazincbarcika, since their population is 200 and 30 thousand respectively, a single election district had to be chosen from each population. This was done by means of simple random sampling, utilizing a random number generator. After choosing the election district, informants were chosen randomly. In the cases of "Szirmabesenyő" and "Arnót", the intermediate-level selection the choice of election districts was skipped and the method of random selection was applied directly at the household level. From the biggest supermarket in the given

**Table 3** Results of $z$ test

| Factors related to poverty | $z$ value | Decision about $H_1$ |
|---|---|---|
| Low income level | 5.48 | Fail to reject |
| Alcoholism | −1.8 | Reject |
| Gambling | −4.7 | Fail to reject |
| Smoking | −1.8 | Reject |
| Unfavorable workplace | −2.9 | Fail to reject |
| Single parent | −1.8 | Reject |
| Large family | −2.9 | Fail to reject |
| Old age | 0.73 | Reject |
| Illness | −0.7 | Reject |
| Life in lodgings | −2.9 | Fail to reject |
| Family background | 0.73 | Reject |
| Entitlement to public aid | −0.7 | Reject |
| Low education level | 2.92 | Fail to reject |
| Unemployment | 1.83 | Reject |
| High inflation rate | −5.1 | Fail to reject |
| Early founding of a family | −2.9 | Fail to reject |
| Adopted child | −4.7 | Fail to reject |
| Entitlement to child benefit | −2.9 | Fail to reject |
| Trading with metal trash | −4.4 | Fail to reject |
| Low level of comfort | −2.9 | Fail to reject |
| Street cleaner | −3.3 | Fail to reject |
| Janitorial | −3.3 | Fail to reject |
| Born in a rural area | −3.3 | Fail to reject |
| Unfavorable mentality | −3.3 | Fail to reject |
| Mental and spiritual problems | −4.7 | Fail to reject |
| Unhappiness | −4.4 | Fail to reject |
| Ill fortune | −4.7 | Fail to reject |
| Crime | −4.7 | Fail to reject |
| Roma descent | −1.8 | Reject |
| Pensioner | −1.8 | Reject |
| Single | −2.9 | Fail to reject |
| Lack of motivation | −4.4 | Fail to reject |

*Source* own computation

community/election district a random walk using random numbers lead to a household, where the person whose birthday would be the next was selected.

Formal interviews were then conducted, during which each informant was asked the same questions. Methods of systematic data collection contain many kinds of constrained methods to gather information about the informants. This study has two aims: finding out (1) what the factors are perceived to be related to poverty; and (2) what the exact meanings of these factors are to the informants. To find the answer for the first question, the methods of balanced-incomplete block designs (BIB) and quicksort were used. These methods shorten the ordering task that would be inordinately long if a total rank order would be asked from the informants. These methods are suitable to rank items according to the

**Table 4** Proportion of matched responses between each pair of individuals

| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.77 | 0.55 | 0.59 | 0.64 | 0.68 | 0.73 | 0.77 | 0.73 | 0.91 | 0.73 | 0.82 | 0.64 | 0.82 | 0.68 | 0.73 |
| 2 | | 0.59 | 0.73 | 0.77 | 0.73 | 0.86 | 0.82 | 0.86 | 0.86 | 0.95 | 0.86 | 0.68 | 0.77 | 0.82 | 0.86 |
| 3 | | | 0.59 | 0.64 | 0.41 | 0.55 | 0.59 | 0.55 | 0.64 | 0.64 | 0.64 | 0.55 | 0.55 | 0.59 | 0.73 |
| 4 | | | | 0.59 | 0.64 | 0.68 | 0.73 | 0.86 | 0.68 | 0.77 | 0.68 | 0.77 | 0.68 | 0.82 | 0.77 |
| 5 | | | | | 0.68 | 0.82 | 0.77 | 0.73 | 0.73 | 0.73 | 0.73 | 0.64 | 0.73 | 0.77 | 0.82 |
| 6 | | | | | | 0.77 | 0.64 | 0.68 | 0.68 | 0.68 | 0.77 | 0.59 | 0.77 | 0.73 | 0.68 |
| 7 | | | | | | | 0.77 | 0.82 | 0.82 | 0.82 | 0.82 | 0.64 | 0.82 | 0.77 | 0.82 |
| 8 | | | | | | | | 0.77 | 0.86 | 0.86 | 0.77 | 0.59 | 0.86 | 0.73 | 0.77 |
| 9 | | | | | | | | | 0.82 | 0.82 | 0.82 | 0.82 | 0.73 | 0.86 | 0.82 |
| 10 | | | | | | | | | | 0.82 | 0.82 | 0.73 | 0.82 | 0.77 | 0.82 |
| 11 | | | | | | | | | | | 0.82 | 0.64 | 0.82 | 0.77 | 0.82 |
| 12 | | | | | | | | | | | | 0.64 | 0.82 | 0.77 | 0.82 |
| 13 | | | | | | | | | | | | | 0.55 | 0.77 | 0.73 |
| 14 | | | | | | | | | | | | | | 0.68 | 0.73 |
| 15 | | | | | | | | | | | | | | | 0.77 |
| 16 | | | | | | | | | | | | | | | |
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| 28 | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | |

| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.86 | 0.64 | 0.64 | 0.64 | 0.82 | 0.73 | 0.82 | 0.77 | 0.64 | 0.82 | 0.73 | 0.73 | 0.73 | 0.77 |
| 2 | 0.73 | 0.86 | 0.68 | 0.77 | 0.86 | 0.86 | 0.86 | 0.82 | 0.77 | 0.95 | 0.86 | 0.95 | 0.86 | 0.91 |
| 3 | 0.59 | 0.55 | 0.73 | 0.55 | 0.64 | 0.55 | 0.55 | 0.41 | 0.73 | 0.64 | 0.73 | 0.55 | 0.64 | 0.59 |
| 4 | 0.55 | 0.59 | 0.77 | 0.59 | 0.68 | 0.77 | 0.68 | 0.64 | 0.68 | 0.77 | 0.77 | 0.68 | 0.77 | 0.73 |
| 5 | 0.68 | 0.73 | 0.73 | 0.73 | 0.82 | 0.64 | 0.73 | 0.68 | 0.91 | 0.82 | 0.82 | 0.82 | 0.73 | 0.77 |
| 6 | 0.64 | 0.77 | 0.68 | 0.59 | 0.77 | 0.68 | 0.68 | 0.73 | 0.59 | 0.77 | 0.68 | 0.68 | 0.68 | 0.73 |
| 7 | 0.68 | 0.73 | 0.73 | 0.64 | 0.82 | 0.73 | 0.91 | 0.77 | 0.73 | 0.91 | 0.82 | 0.82 | 0.82 | 0.86 |
| 8 | 0.82 | 0.68 | 0.68 | 0.68 | 0.77 | 0.86 | 0.77 | 0.73 | 0.77 | 0.86 | 0.77 | 0.86 | 0.77 | 0.82 |
| 9 | 0.68 | 0.73 | 0.64 | 0.73 | 0.82 | 0.73 | 0.82 | 0.77 | 0.73 | 0.91 | 0.82 | 0.82 | 0.82 | 0.86 |
| 10 | 0.86 | 0.73 | 0.73 | 0.73 | 0.82 | 0.82 | 0.82 | 0.77 | 0.73 | 0.91 | 0.82 | 0.82 | 0.82 | 0.86 |
| 11 | 0.68 | 0.82 | 0.73 | 0.73 | 0.82 | 0.91 | 0.82 | 0.77 | 0.73 | 0.91 | 0.82 | 0.91 | 0.82 | 0.86 |
| 12 | 0.77 | 0.73 | 0.64 | 0.64 | 0.91 | 0.73 | 0.82 | 0.77 | 0.73 | 0.91 | 0.82 | 0.82 | 0.82 | 0.86 |

**Table 4** continued

| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 0.59 | 0.55 | 0.73 | 0.73 | 0.64 | 0.64 | 0.64 | 0.59 | 0.64 | 0.73 | 0.64 | 0.64 | 0.73 | 0.77 |
| 14 | 0.77 | 0.64 | 0.73 | 0.55 | 0.82 | 0.82 | 0.73 | 0.86 | 0.64 | 0.82 | 0.73 | 0.73 | 0.73 | 0.77 |
| 15 | 0.64 | 0.77 | 0.68 | 0.68 | 0.86 | 0.77 | 0.77 | 0.73 | 0.77 | 0.86 | 0.86 | 0.77 | 0.77 | 0.82 |
| 16 | 0.68 | 0.73 | 0.82 | 0.73 | 0.82 | 0.73 | 0.82 | 0.68 | 0.91 | 0.91 | 0.91 | 0.82 | 0.91 | 0.86 |
| 17 | | 0.59 | 0.59 | 0.68 | 0.77 | 0.68 | 0.68 | 0.73 | 0.68 | 0.77 | 0.68 | 0.77 | 0.68 | 0.73 |
| 18 | | | 0.55 | 0.73 | 0.82 | 0.73 | 0.73 | 0.68 | 0.73 | 0.82 | 0.82 | 0.82 | 0.73 | 0.77 |
| 19 | | | | 0.64 | 0.64 | 0.73 | 0.64 | 0.59 | 0.73 | 0.73 | 0.73 | 0.64 | 0.73 | 0.68 |
| 20 | | | | | 0.64 | 0.64 | 0.64 | 0.68 | 0.73 | 0.73 | 0.64 | 0.82 | 0.64 | 0.68 |
| 21 | | | | | | 0.73 | 0.82 | 0.77 | 0.82 | 0.91 | 0.91 | 0.82 | 0.82 | 0.86 |
| 22 | | | | | | | 0.73 | 0.77 | 0.64 | 0.82 | 0.73 | 0.82 | 0.73 | 0.77 |
| 23 | | | | | | | | 0.68 | 0.73 | 0.91 | 0.82 | 0.82 | 0.82 | 0.86 |
| 24 | | | | | | | | | 0.59 | 0.77 | 0.68 | 0.77 | 0.68 | 0.73 |
| 25 | | | | | | | | | | 0.82 | 0.91 | 0.82 | 0.82 | 0.77 |
| 26 | | | | | | | | | | | 0.91 | 0.91 | 0.91 | 0.95 |
| 27 | | | | | | | | | | | | 0.82 | 0.91 | 0.86 |
| 28 | | | | | | | | | | | | | 0.82 | 0.86 |
| 29 | | | | | | | | | | | | | | 0.86 |

*Source* own compilation

**Table 5** Minimal number of informants needed to classify a desired proportion with a specified confidence level for different levels of competence

| Proportion of questions | Average level of competence | | | | |
|---|---|---|---|---|---|
| | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 |
| 0.95 Confidence level | | | | | |
| 0.80 | 9 | 7 | 4 | 4 | 4 |
| 0.85 | 11 | 7 | 4 | 4 | 4 |
| 0.90 | 13 | 9 | 6 | 4 | 4 |
| 0.95 | 17 | 11 | 6 | 6 | 4 |
| 0.99 | 29 | 19 | 10 | 8 | 4 |
| 0.99 Confidence level | | | | | |
| 0.80 | 15 | 10 | 5 | 4 | 4 |
| 0.85 | 15 | 10 | 7 | 5 | 4 |
| 0.90 | 21 | 12 | 7 | 5 | 4 |
| 0.95 | 23 | 14 | 9 | 7 | 4 |
| 0.99 | * | 20 | 13 | 8 | 6 |

* Well over 30 informants needed

*Source* Weller, S. C, Romney, A. K.: Systematic Data Collection. p 77

extent to which they are related to poverty. This study uses both of the above mentioned methods in order to determine any potential differences that might exist between the results. To find the exact meaning of the items, rating scales are used.

**Table 6** Sample composition based on the distribution of the whole population

| | Number of population | Distribution of population (%) | Sample size |
|---|---|---|---|
| Town of county rank(Miskolc) | 184,125 | 24.73 | 3 |
| Other towns | 216,237 | 29.05 | 4 |
| Communities | 344,042 | 46.22 | 6 |
| Total | 744,404 | 100 | 13 |

*Source* own compilation based on www.nepszamlalas.hu

Balanced-incomplete block (BIB) designs systematically compare subsets of selected items. The designs control the number of times that each pair is compared. By this reduction, the total number of subsets is also reduced, while still maintaining comparisons among all items. BIB designs can be identified with four parameters: $n$, the number of items; lambda, the number of times each pair occurs; $k$, the number of items in each set or block; and $b$, the number of sets or blocks. Quicksort is a kind of rank order method. Names of items are written on cards which are first randomized and then a card is selected as a standard. All cards are compared to this standard and are divided into two piles: the cards greater than and those less than the standard. This process is repeated for each pile, until all items are ordered. Rating scales are the most widely used methods to collect data in written format as they work best with literate informants. Scales are usually expressed as four- to eleven-point scales. The more points a scale has, the more reliable it is said to be (Weller and Romney 1988). Interviews were conducted during the summer (June–August) of 2007.

## 3 Results

### 3.1 Subjective Poverty

The first aim of this research is to find out what the factors most related to poverty are thought to be by the informants. The method of balanced incomplete block designs and quicksort are suitable for this task. With 21 items, balanced incomplete block designs can be created where each pair occurs once, the number of items in each block is five and the number of sets of blocks is 21. These 21 blocks were created using the initial items from free listing and informants were asked to rank the items in each block from 1 (the item which is least related to poverty) to 5 (the item which is most related to poverty). The responses of one of the informants for the 21 questions can be seen in Table 7. The 21 blocks each containing five items out of the 21 are listed in the columns, and the 21 items in the rows. The first question, for example, was to rank illness, entitlement to public aid, lack of family support, unfavorable occupation and early founding of family from 1 = least related to poverty to 5 = most related to poverty. In this question lack of family support was chosen as least and entitlement to public aid as most related to poverty. The responses can be tabulated as in Table 7.

At the end, by summarizing the numbers assigned to each items, the total values belonging to each item can be seen in the last but one column. Based on these values, the total rank order of the items for each informant can be created. The informant whose responses are shown in Table 7 believes that single (as a marital status) and rural life are the items least related to poverty and Roma descent is most related to it. Some ambiguities,

**Table 7** Responses of an informant to balanced incompleted block designs

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcoholism | | | 3 | | 3 | | | | 2 | | | |
| Smoking | | | | 1 | | | | 2 | | 1 | 2 | |
| Single | | | | | 2 | | | 1 | | | | 1 |
| Illness | 2 | | | 3 | | | 1 | | | | | 4 |
| Life in lodgings | | | | | | 1 | | | | | 4 | |
| Entitlement to public aid | 5 | | | | | | | | 5 | | 5 | |
| Roma descent | | | | | | 4 | 5 | | | | | |
| Unemployment | | | | | | | 2 | 4 | 3 | | | |
| Retirement | | 2 | | | | | | | | | | 3 |
| Child benefit | | | | | | | | 3 | | | | |
| Rural life | | | 1 | | | | | | | | 1 | 2 |
| Large family | | 5 | | | | | | | | 2 | | |
| Old age | | 4 | | | 5 | | 3 | | | | 3 | |
| Low educational level | | | 2 | 5 | | | | | | | | |
| Low level of comfort | | | 5 | | | | 4 | | | 4 | | |
| Lack of family support | 1 | | | | 1 | | | | | 3 | | |
| Unfavorable mentality | | | | 4 | 4 | 2 | | | | | | |
| Single parent | | 1 | | 2 | | | | | 1 | | | |
| Unfavorable occupation | 3 | | | | | | | | | | | |
| Early founding of family | 4 | 3 | 4 | | | 3 | | 5 | | | | |
| Low income level | | | | | | 5 | | | 4 | 5 | | 5 |

| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | Total | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcoholism | | 4 | | | | | | | 4 | 16 | 10 |
| Smoking | | | | | | | | | 1 | 7 | 19 |
| Single | | | 1 | 1 | | | | | | 6 | 20,5 |
| Illness | | 3 | | | | | | | | 13 | 13.5 |
| Life in lodgings | | 5 | 3 | | 2 | | | | | 15 | 12 |
| Entitlement to public aid | | | | 3 | | | | 5 | | 23 | 3 |
| Roma descent | | | | 5 | | | 5 | | 5 | 24 | 1.5 |
| Unemployment | 4 | | | | 5 | | | | | 18 | 7 |
| Retirement | | | | | 1 | | | 1 | 2 | 9 | 17 |
| Child benefit | | 2 | | | | 2 | 4 | 2 | | 13 | 13.5 |
| Rural life | 1 | | | | | | 1 | | | 6 | 20.5 |
| Large family | 2 | 1 | | 2 | | | | | | 12 | 15.5 |
| Old age | | | | | | 1 | | | | 16 | 10 |
| Low educational level | | | | 4 | 3 | 4 | | | | 18 | 7 |
| Low level of comfort | | | 5 | | | | | 4 | | 22 | 4 |

**Table 7** continued

| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | Total | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lack of family support | | | | | 4 | | 3 | | | 12 | 15.5 |
| Unfavorable mentality | 5 | | | | | | | 3 | | 18 | 7 |
| Single parent | | | 2 | | | | 2 | | | 8 | 18 |
| Unfavorable occupation | 3 | | 4 | | | 3 | | | 3 | 16 | 10 |
| Early founding of family | | | | | | | | | | 19 | 5 |
| Low income level | | | | | | 5 | | | | 24 | 1.5 |

*Source* own compilation

however, can be found in the list, as in the case of the 1–2 ranks. The total rank orders for each of the 13 informants are shown on Table 8. By summarizing these rank orders, the total rank order across the informants can be created (last column of Table 8).

The final rank order can be seen in Fig. 1. Low income level, unemployment, entitlement to public aid and Roma descent are the items most related to poverty, while rural life, smoking and single (as a marital status) are least related to it.

Quicksort was also used to rank the items according to the extent they are related to poverty. In the interview each item was written on a card. Then a card was selected randomly out of the 21 and then the informants were asked to divide the rest of the cards into two piles: items that are more and related less to poverty. This process was repeated for each pile until an order of the items was obtained. The rank order for each informant can be seen in Table 9. Informants are in the columns and items are in the rows. The rank order for each subject ranges from 1 (item least related to poverty) to 21 (item most related to poverty).

By summarizing these numbers assigned for each item, the final rank order can be calculated (the last column in Table 9). This final rank order is shown in Fig. 2 as well. This shows that low income level, Roma descent, unemployment and entitlement to social support are most related to poverty, while rural life, smoking, single (as a marital status) are least related to it.

In order to find out the reliability of the two applied methods, the final rank orders of them have to be compared. This comparison shows that the same items can be found, (rural life, smoking and single) at the end of both lists, while low income level, Roma descent, unemployment and entitlement to public aid are most related to poverty in both rank orders. There are, however, some items, which ended up with different ranks, for example life in lodging, retirement or child benefit. To measure the difference between the two lists, the value of the coefficient of rank correlation had to be found. Its value is 0.92, which means that there is a direct strong relationship between the two rank orders. Incongruent results can occur for a variety of reasons. First, respondents can make errors. Some errors are unintentional, others are not. The informant may not want to answer the questions or for some reason answers nonsense. Second, informants sometimes cannot tell the different between two items (Weller and Romney 1988). So the two methods have nearly the same results, which mean that they are both reliable and the final rank orders can be considered to actually reflect the population's belief about poverty-related items.

After finding out which items are most related to poverty, the exact meanings of them need be found. Some items listed by the informants need further specification. There can be ambiguities about the exact meaning of low income level, large family, old age, low

**Table 8** Summarized responses of the 13 informants to balanced incomplete bloch designs

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcoholism | 16 | 13 | 17 | 21 | 20 | 12 | 6 | 24 | 11 | 22 | 20 | 25 | 22 | 229 |
| Smoking | 7 | 11 | 13 | 5 | 8 | 6 | 6 | 19 | 5 | 6 | 9 | 12 | 10 | 117 |
| Single | 6 | 12 | 6 | 7 | 16 | 5 | 8 | 6 | 9 | 18 | 8 | 8 | 8 | 117 |
| Illness | 13 | 16 | 15 | 20 | 16 | 23 | 18 | 24 | 15 | 24 | 14 | 23 | 13 | 234 |
| Life in lodgings | 15 | 12 | 16 | 15 | 13 | 10 | 11 | 19 | 15 | 14 | 11 | 15 | 14 | 180 |
| Entitlement to public aid | 23 | 10 | 22 | 16 | 24 | 23 | 21 | 18 | 24 | 17 | 20 | 18 | 21 | 257 |
| Roma descent | 24 | 14 | 25 | 25 | 13 | 21 | 12 | 10 | 19 | 20 | 25 | 22 | 24 | 254 |
| Unemployment | 18 | 9 | 23 | 20 | 18 | 17 | 25 | 22 | 25 | 17 | 23 | 19 | 22 | 258 |
| Retirement | 9 | 17 | 13 | 17 | 11 | 15 | 18 | 13 | 15 | 12 | 14 | 19 | 10 | 183 |
| Child benefit | 13 | 18 | 7 | 16 | 22 | 20 | 16 | 19 | 14 | 14 | 7 | 13 | 7 | 186 |
| Rural life | 6 | 13 | 5 | 14 | 11 | 7 | 6 | 6 | 8 | 9 | 5 | 5 | 7 | 102 |
| Large family | 12 | 19 | 15 | 9 | 14 | 21 | 18 | 11 | 19 | 23 | 21 | 15 | 16 | 213 |
| Old age | 16 | 11 | 12 | 13 | 10 | 20 | 19 | 13 | 19 | 7 | 14 | 22 | 12 | 188 |
| Low educational level | 18 | 21 | 21 | 15 | 11 | 11 | 20 | 18 | 17 | 13 | 23 | 15 | 20 | 223 |
| Low level of comfort | 22 | 16 | 18 | 17 | 18 | 16 | 19 | 17 | 21 | 7 | 16 | 11 | 18 | 216 |
| Lack of family support | 12 | 21 | 10 | 12 | 6 | 12 | 13 | 11 | 9 | 13 | 8 | 12 | 10 | 149 |
| Unfavorable mentality | 18 | 14 | 14 | 13 | 23 | 14 | 12 | 6 | 20 | 9 | 12 | 6 | 14 | 175 |
| Single parent | 8 | 13 | 9 | 9 | 19 | 13 | 19 | 14 | 11 | 21 | 10 | 12 | 9 | 167 |
| Unfavorable occupation | 16 | 17 | 11 | 10 | 6 | 11 | 10 | 13 | 8 | 13 | 16 | 12 | 16 | 159 |
| Early founding of family | 19 | 14 | 19 | 12 | 13 | 14 | 16 | 9 | 9 | 13 | 18 | 8 | 18 | 182 |
| Low income level | 24 | 24 | 24 | 22 | 23 | 24 | 22 | 23 | 22 | 23 | 21 | 23 | 24 | 299 |

*Source* own compilation

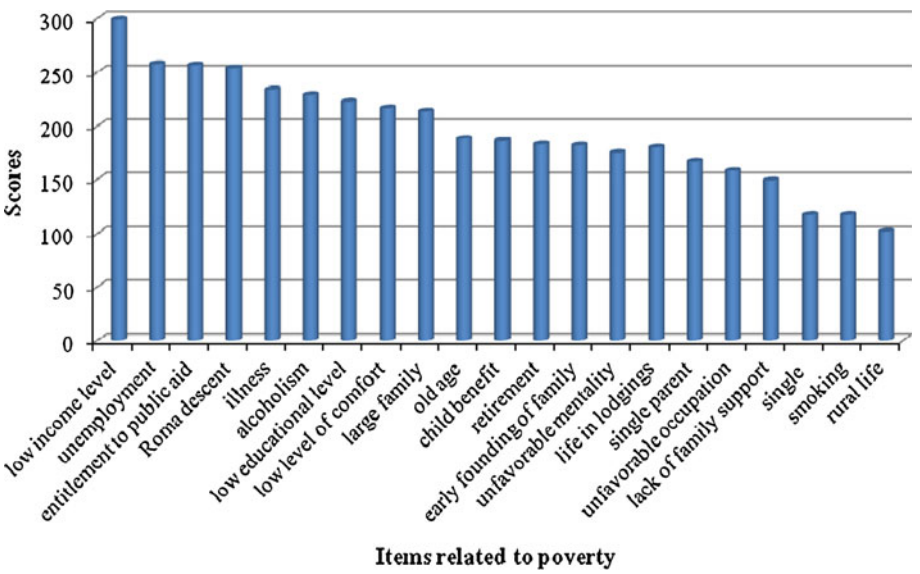


**Fig. 1** Total rank order of BIB designs. *Source* own compilation

**Table 9** Responses of the informants to quicksort

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcoholism | 20 | 12 | 7 | 12 | 20 | 15 | 6 | 19 | 20 | 7 | 11 | 18 | 15 | 182 |
| Smoking | 1 | 5 | 3 | 3 | 4 | 5 | 1 | 16 | 2 | 8 | 4 | 2 | 2 | 56 |
| Single | 2 | 7 | 1 | 1 | 3 | 6 | 5 | 9 | 10 | 10 | 2 | 5 | 3 | 64 |
| Illness | 19 | 17 | 21 | 10 | 17 | 16 | 8 | 20 | 8 | 15 | 13 | 8 | 17 | 189 |
| Life in lodgings | 14 | 16 | 6 | 13 | 13 | 17 | 9 | 7 | 15 | 14 | 16 | 7 | 14 | 161 |
| Entitlement to public aid | 17 | 19 | 19 | 19 | 16 | 18 | 17 | 5 | 14 | 16 | 18 | 19 | 18 | 215 |
| Roma descent | 16 | 18 | 15 | 21 | 9 | 14 | 21 | 17 | 18 | 17 | 20 | 21 | 19 | 226 |
| Unemployment | 18 | 15 | 14 | 16 | 15 | 21 | 12 | 18 | 17 | 20 | 19 | 17 | 20 | 222 |
| Retirement | 7 | 6 | 5 | 8 | 12 | 12 | 15 | 2 | 9 | 2 | 7 | 10 | 5 | 100 |
| Child benefit | 10 | 9 | 12 | 7 | 8 | 13 | 11 | 15 | 3 | 5 | 5 | 3 | 9 | 110 |
| Rural life | 12 | 1 | 2 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 30 |
| Large family | 11 | 14 | 16 | 9 | 11 | 4 | 19 | 6 | 12 | 13 | 9 | 13 | 12 | 149 |
| Old age | 13 | 4 | 13 | 6 | 2 | 9 | 13 | 3 | 7 | 18 | 15 | 9 | 8 | 120 |
| Low educational level | 15 | 2 | 8 | 17 | 18 | 10 | 10 | 10 | 16 | 11 | 17 | 14 | 13 | 161 |
| Low level of comfort | 6 | 20 | 11 | 18 | 19 | 19 | 14 | 14 | 4 | 12 | 14 | 15 | 16 | 182 |
| Lack of family support | 5 | 3 | 17 | 14 | 6 | 2 | 2 | 13 | 13 | 6 | 8 | 4 | 6 | 99 |
| Unfavorable mentality | 4 | 11 | 9 | 11 | 10 | 1 | 18 | 12 | 19 | 9 | 12 | 11 | 10 | 137 |
| Single parent | 8 | 10 | 18 | 5 | 5 | 8 | 16 | 11 | 5 | 19 | 3 | 6 | 11 | 125 |
| Unfavorable occupation | 9 | 13 | 4 | 4 | 14 | 7 | 4 | 4 | 6 | 4 | 6 | 16 | 4 | 95 |
| Early founding of family | 3 | 8 | 10 | 15 | 7 | 11 | 7 | 8 | 11 | 3 | 10 | 12 | 7 | 112 |
| Low income level | 21 | 21 | 20 | 20 | 21 | 20 | 20 | 21 | 21 | 21 | 21 | 20 | 21 | 268 |

*Source* own compilation

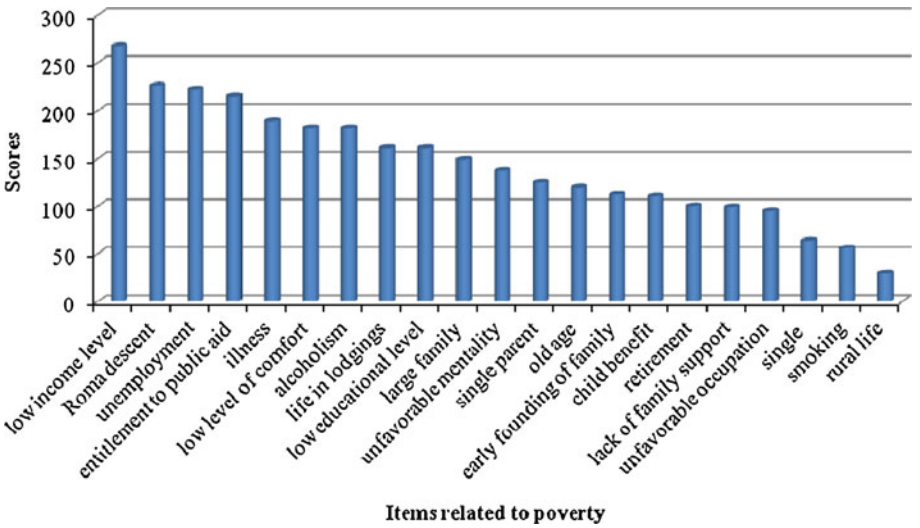


**Fig. 2** Total rank order of quicksort. *Source* own compilation

educational level, early founding of family and low level of comfort. This study uses rating scales to define exactly the meaning of these items.

In the questionnaire informants were asked what they exactly think about these items (see Fig. 3 about the questionnaire). Table 10 shows the responses of each informant to the questions. Informants are listed in columns and the items to which the questions refer are in the rows. With the methods of statistical inference, the exact meanings of these items can be found using the answers of the informants.

The exact definition of the items of interest can be found with the use of estimation. To do this, 0.95 confidence level was applied. As for income, the subjective poverty line is between 31,407 and 51,670 HUF. In case of large families, people think that the majority of large families are considered to be poor because of the large number of children, if they bring up more than 3 or 4 children. As for old age, the age over which the majority of people is considered to be poor because of their age is between 54 and 69.

The education level under which the majority of people is considered to be poor because of their low qualification level is between 8 grades (signed with 2) and with professional qualification without general certificate (signed with 3). In case of men, people believe that the age under which founding a family results in poverty in most of the cases is between 19 and 22. In case of women this age is between 18 and 21. The level of comfort under which the majority of people is considered to be poor is between dwellings without comfort (signed with 2) and dwellings with part of amenities (signed with 3). In case of per capita income, a comparison with objective poverty thresholds is possible. This is described in detail in the next section.

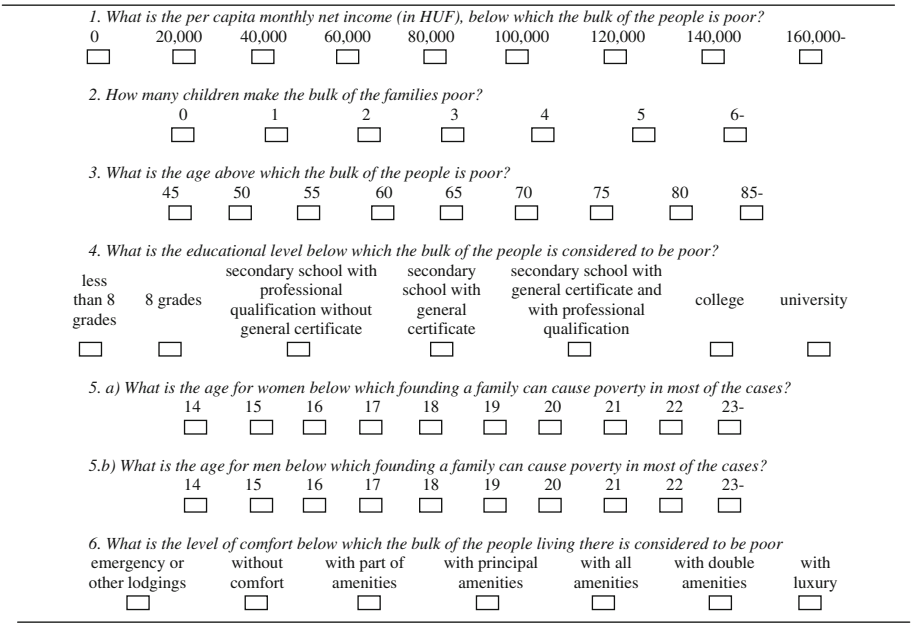


**Fig. 3** Questionnaire for rating scales. *Source* own compilation

**Table 10** Responses of the informants to rating scales

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monthly net income | 40,000 | 30,000 | 30,000 | 60,000 | 30,000 | 30,000 | 70,000 | 40,000 | 10,000 | 40,000 | 40,000 | 60,000 | 60,000 |
| Number of children | 4 | 4 | 4 | 2 | 4 | 2 | 3 | 3 | 5 | 3 | 3 | 4 | 4 |
| Old age | 50 | 50 | 80 | 70 | 70 | 65 | 75 | 65 | 65 | 45 | 45 | 70 | 45 |
| Education level | 2 | 4 | 1 | 3 | 2 | 4 | 2 | 3 | 1 | 1 | 1 | 2 | 2 |
| Founding a family (women) | 18 | 20 | 18 | 20 | 15 | 20 | 20 | 20 | 18 | 17 | 23 | 18 | 23 |
| Founding a family (men) | 18 | 20 | 18 | 22 | 15 | 22 | 22 | 20 | 22 | 16 | 23 | 22 | 23 |
| Level of comfort | 4 | 4 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 |

*Source* own compilation

### 3.2 Comparison of Subjective and Objective Poverty Concepts

Comparison of the different poverty concepts can be done through income level. The poverty line from the answers of the informants (the answers for the first question) was compared with objective poverty lines. In Hungary the official poverty line defined by the Hungarian Central Statistical Office is the subsistence level. It means that one is considered to be poor if (s)he lives below the subsistence level, that is if (s)he does not have the amount of money necessary to satisfy the basic needs or secure minimum living conditions (Létminimum 2007). Absolute concept of poverty is also used by the World Bank in international comparisons. The former 1 dollar per capita poverty line was increased to 1.25 dollars in 2005. This value is calculated as the average of the poverty lines in the poorest 10 or 20 countries. In case of Eastern European countries, however, the World Bank uses 4.3 dollars per capita as the poverty line. This higher threshold identifies households who are not suffering absolute deprivation, but are vulnerable to poverty (Alam et al. 2005). For the comparison, I use the official poverty threshold, the subsistence minimum, the level of which was 56,400 HUF per capita for a month in 2007 (Létminimum 2007). The hypothesis is that people in Borsod-Abaúj-Zemplén county believe that the poverty line is equal to the subsistence level. The alternative hypothesis states that the two values are not equal. To test the hypothesis, the value of Student's test ($t = -0.43$) had to be found. At the 0.95 confidence level the rejecting region is below $-2.18$ and above 2.18, so the null hypothesis can be accepted, that is the poverty line according to the population coincides with that of the absolute concept of poverty. Subjective well-being and absolute concept of poverty are correlated when the average per capita income is below a certain level (Easterlin 1995).

The European Union currently employs a poverty line set at 60% of the median equalized income (Laeken indicators 2003). Its value was 52,000 HUF for a month for a single person and 109,200 HUF in a household with two adults and two children younger than 14 years. In this latter case, the threshold for one consumer unit can be calculated taking into account the weights belonging to the members of the household. In a household with active population the weight for the first adult is usually 1, for the second adult is 0.75, for the first child younger than 14 is 0.65 and for the second child younger than 14 is 0.5 (Létminimum 2007). So in a household with two adults and two children younger than 14 years, the total consumer unit is 2.9. By dividing the threshold for a household with the total consumer unit, the threshold is 37,655 HUF per person in a household. To define a single relative poverty threshold, the mean of the threshold for a single person and the threshold for a consumer unit living in a family is calculated. This value is 44,828 HUF. The hypothesis states that people in Borsod-Abaúj-Zemplén county believe that the poverty line is equal to the relative poverty threshold. The alternative hypothesis states that the two values are not equal. The value of Student's test is $t = -0.027$. At the 0.95 confidence level, the rejecting region is below $-2.18$ and above 2.18, so I reject the alternative hypothesis again, namely, the poverty line according to the population coincides with that of the relative poverty concept. The initial hypothesis about the relationship of subjective and relative poverty concepts can also be accepted. Layard (2002), Luttmer (2005), Easterlin (1995) and Frey and Stutzer 2002 also stated that subjective perception of poverty is associated not only with absolute, but also with relative poverty.

The subjective poverty line is not significantly different from the absolute and relative thresholds. The only significant difference was found between subjective and political poverty lines. The different poverty thresholds can be seen in Fig. 4.

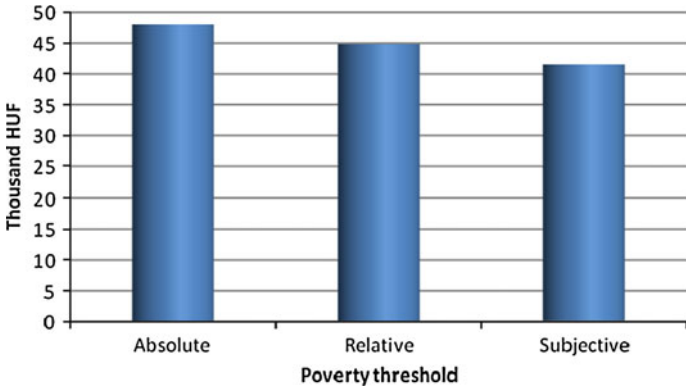


**Fig. 4** Objective and subjective poverty thresholds in Borsod-Abaúj-Zemplén county, Hungary in 2007. *Source* own compilation based on Létminimum 2007, Eurostat, 224/2006. 7. § 329/2006. governmental regulation 6. § and own calculations

## 4 Conclusion

In this paper I found out subjective poverty assessment in a county of Hungary. The methods of systematic data collection helped to find the items most related to poverty. These are low income level, Roma descent, entitlement to social supports and unemployment. To a lesser extent, several other items, like large family (bringing up 4 or more children), illness, low educational level (below 8 grades), low level of comfort (dwellings without comfort or emergency lodgings), alcoholism, old age (more than 69), early founding of family (before the age of 19 for men and 18 for women) were also found to be related to poverty. It proves that poverty is a multidimensional concept. A drawback of the research is that it does not examine whether an item related to poverty is a cause or a consequence of poverty. This is a problem worthy of much research on its own.

I also showed that there are no discrepancies in the identification of the poor between objective and subjective poverty assessments. The results suggest that besides taking into account their absolute income position, individuals judge their own position in reference to other like them. The evidence that relative income assessment is highly correlated with subjective well-being does not imply that the elimination of absolute poverty is not a justified policy objective. It only means that increasing the absolute income level of individuals may not be enough to improve their subjective well-being as they are also concerned with their relative income position. It also implies that the increase of others' income affects the individual's utility negatively, or that the entry of some member of some low-employed groups into paid employment can spur the entry of others from that group.

To get a better view of the conditions of the poor, the research field should be extended to each county of Hungary. It would make regional comparison possible. Research could also be extended over time by repeating the survey in different years. As cultural competence is said to be changing with economic development (Inglehart and Baker 2000), subjective perception may also change with economic development or decline that can modify subjective perception of well-being as well.

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